75 Years of Marine Corps Aviation — A Tribute

An Exhibition of Art from the Marine Corps Museum

HISTORY AND MUSEUMS DIVISION
HEADQUARTERS, U.S. MARINE CORPS
WASHINGTON, D.C.
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—A Tribute

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HEADQUARTERS, U.S. MARINE CORPS
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# Table of Contents

Introduction, “75 Years of Marine Corps Aviation—A Tribute” ........................................... v  

*Lieutenant Cunningham over Annapolis*, Colonel John J. Capolino, USMCR .................... 1  

*Dogfight, 1918*, Colonel John J. Capolino, USMCR .................................................... 2  

*Aerial Resupply—2 October 1918*, Charles L. Lock ....................................................... 3  

*Ocotal Close Air Support*, Lieutenant Colonel A. Michael Leahy, USMCR ..................... 4  

*Managua Trimotors*, Lieutenant Colonel A. Michael Leahy, USMCR .............................. 5  

*At the Edge of Henderson Field*, First Lieutenant Hugh Laidman, USMCR ..................... 6  

*Fogerty’s Fare*, Lieutenant Colonel A. Michael Leahy, USMCR ..................................... 7  

*Henderson SBDs*, First Lieutenant Hugh Laidman, USMCR ........................................... 8  

*Corsairs at Henderson Field*, First Lieutenant Hugh Laidman, USMCR ......................... 9  

*Henderson Field, Night*, First Lieutenant Hugh Laidman, USMCR ................................ 10  

*Control Tower*, Technical Sergeant Victor P. Donahue, USMCR .................................... 11  

*Aviators’ Debriefing*, Major Alex Raymond, USMCR .................................................... 12  

*Marine Ordnancemen*, Sergeant Paul T. Arlt, USMCR .................................................. 13  

*Black Death Night Fighters*, B. J. “Bud” Parke ............................................................ 14  

*On the Deck*, Colonel Horace Avery Chenoweth, USMCR ............................................ 15  

*Landing Zone*, Colonel Horace Avery Chenoweth, USMCR ........................................... 16  

*Down in the Valley*, Master Sergeant John DeGrasse, USMC ........................................ 17  

*Whisked to Helicopter*, John Groth .................................................................................. 18  

*Ready to Launch*, Major John T. Dyer, USMCR ............................................................. 19  

*Refueling*, Robert Kent Halladay ....................................................................................... 20  

*Catapult*, Colonel Peter M. Gish, USMCR ....................................................................... 21  

*Belting Ammo*, Colonel Peter M. Gish, USMCR ............................................................... 22  

*A-4E*, Captain Leonard H. Dermott, USMC ..................................................................... 23  

*Down for Radios*, Lieutenant Colonel A. Michael Leahy, USMCR ................................. 24  

*Ready for Mission*, Colonel Peter M. Gish, USMCR ....................................................... 25  

*Helicopter Watch*, Captain Leonard H. Dermott, USMCR .............................................. 26  

*Medevac*, Douglas Rosa ..................................................................................................... 27  

*Vertical Envelopment*, Colonel Edward M. Condra III, USMC .................................... 28  

*Touchdown*, Howard Terpning .......................................................................................... 29  

*Guardian Angel Gunship*, Lieutenant Colonel A. Michael Leahy, USMCR ..................... 30  

*Gunship*, Gunnery Sergeant James A. Fairfax, USMC .................................................... 31  

*Rose Garden Approach*, Major John T. Dyer, USMCR ................................................... 32  

*Snowy Beach Support*, Captain Leonard H. Dermott, USMC ....................................... 33  

*Takeoff*, R. G. Smith .......................................................................................................... 34  

*Radar*, Colonel Peter M. Gish, USMCR ........................................................................... 35  

*Crash Crew Trainee*, Lieutenant Colonel Keith A. McConnell, USMCR ....................... 36  

*Aviation Clothing*, Major Donna J. Neary, USMCR ....................................................... 37  

*Hoot Owl*, Master Gunnery Sergeant Wendell A. Parks, USMCR ................................. 38  

*Harriers in Rain*, Master Sergeant John DeGrasse, USMC ............................................ 39  

*Over the Choptank River*, James Butcher ......................................................................... 40  

*Fly with the U.S. Marines*, Howard Chandler Christy ..................................................... 41
On 22 May 1987, Marine Corps aviation will have commemorated its 75th anniversary. On this date in 1912 First Lieutenant Alfred A. Cunningham reported for duty at the new aviation camp in Annapolis.

On 1 August that year, after two hours and 40 minutes of instruction at Marblehead, Massachusetts, he soloed in a Curtiss seaplane, thus becoming the first Marine pilot (and the fifth naval aviator). A new Aviation Detachment in the Advance Base Force was activated on 27 December 1913. The detachment consisted of two officers, seven enlisted Marines, and two Navy flying boats.

When America entered World War I, Marine Corps aviation consisted of six officers, one warrant officer, and 43 enlisted Marines at Pensacola. The detachment split into the 1st Marine Aviation Squadron (land planes) and the 1st Marine Aeronautic Company (seaplanes) in October 1917. The latter unit sailed from Philadelphia on 9 January 1918 with 10 Curtiss R-6 seaplanes and 2 Curtiss N-9s for the Azores, where it flew antisubmarine patrols without ever sighting a U-boat.

Meanwhile, in early 1918, the 1st Marine Aviation Squadron became the nucleus of the 1st Marine Aviation Force. At about the same time, Captain Cunningham returned from France where he had been exploring opportunities for Marine employment. He recommended that four Marine squadrons form the Day Wing of a proposed Navy Northern Bombing Group. In July, the Force moved to France with Captain Cunningham commanding. At Calais, the Marines received 72 American-built De Havilland-4 bombers, which were so badly put together they had to be rebuilt. Meanwhile, the Marine pilots were assigned to two Royal Air Force squadrons which flew the DHs, and a few other lucky Marines were assigned to an RAF squadron which flew Sopwith Camel fighters.

By October 1918, the original targets of the Northern Bombing Group had been abandoned by the Germans, and the Group began attacking rear area targets to hinder the retreat of the Germans, and also to support British attacks. By the end of the war, the 1st Marine Aviation Force had flown 43 missions with the RAF, plus 14 of its own, shot down four German fighters, and claimed eight more. Four Marines had been killed in action. By the end of World War I, Marine Aviation had expanded to 282 officers; 2,180 enlisted Marines; and 340 aircraft.

In September 1919, the Force disbanded, and its assets dispersed to Parris Island and Quantico. In March that year, when the Haitian Gendarmerie asked for help in putting down bandits, the United States sent a Marine brigade, which included Squadron E with its seven Curtiss HS-2 flying boats and six Curtiss JN-1 Jennies. In Haiti, Marine Flyers experimentally dropped bombs out of mail sacks tied to the landing gear of their Jennies and DH-4s.

Meanwhile, in Santo Domingo, Marines in the military government were experiencing problems with local bandits. Assigned to assist the military government was the 2d Brigade, which included Squadron E with six DH-4s. During the Second Nicaraguan Intervention, Marine Observation Squadron One under Major Ross E. “Rusty” Rowell arrived in February 1927 with six DH-4s. When a 38-man detachment was attacked by a rebel force under Sandino on 16 July, two DH-4s on morning patrol saw that something was wrong. While one pilot strafed the attackers, the second landed to find out what was going on, and then flew back to alert Rowell. The latter soon arrived over the battle with four DH-4s, each armed with four 25-pound bombs and all the machine gun ammunition each could carry. In perhaps the first organized dive bombing attack in history, Rowell’s flyers went after the guerrillas; 56 of Sandino’s men were killed, and about twice that number wounded. Operations against Sandino continued during the rest of the year, with Marine flyers attacking guerrilla positions as well as acting as observers for the ground forces.

On 30 December, there was a hard fight at Quilali, where Marines were besieged by Sandino’s forces. Tied down by 30 wounded, there appeared to be no way to break out. The town’s main street was turned into an improvised airstrip, and on 6 January First Lieutenant Christian F. Schilt flew in with an O2U-1 biplane, the original Vought Corsair. The plane’s brakes were not
working, and the Marines had to halt it by grabbing at its wings. In three days, Schilt made 10 round trips; brought in 1,400 pounds of supplies; and took out 18 of the more critically wounded. For this exploit, he subsequently received the Medal of Honor.

After Nicaragua, Marine pilots put on many dive-bombing exhibitions at air shows in this country and Canada. German observers noted the tactic, which their country used in World War II to help conquer most of Europe.

By 1926, there were two Aviation Groups to support respective Expeditionary Forces, one on each coast. When the 3d Marine Brigade was sent to China, a squadron from Guam, and one from San Diego, joined the Marines there.

With the establishment of the Fleet Marine Force in 1933, Marines at Quantico began refining the concept of amphibious assault operations. Simultaneously, they evolved tactics for Marine air in support of ground operations.

In 1939 the General Board of the Navy clarified Marine aviation's mission. It was to be equipped, organized, and trained primarily for support of the Fleet Marine Force in landing operations and in the field; and secondarily as replacements for carrier-based aircraft. In fact, Marine flyers began operating from the decks of carriers on 2 November 1931, when VS-14M went on board Saratoga, and VS-15M joined the Lexington for three-year tours. When the Fleet Marine Force expanded, the aircraft groups followed suit. On 7 May 1941, the 1st Marine Aircraft Wing was activated at Quantico, and three days later the 2d MAW came into being at San Diego.

On 7 December 1941, MAG-21 was caught on the ground at Ewa Air Station in Hawaii, and had all but one of its aircraft knocked out. Next, Marine Fighter Squadron (VMF) 211 at Wake Island had seven planes destroyed on the ground, and used up the remaining five in combat. In the battle of Midway, MAG-22 had two squadrons, VMF-221 and Marine Scout-Bomber Squadron (VMSB) 241, which participated in the fighting without affecting the outcome.

On 7 August 1942, the 1st Marine Division landed on Guadalcanal to begin the first offensive against the Japanese. Thirteen days later, the first Marine aircraft, Grumman F4F Wildcats from VMF-223, landed on the island, followed by VMSB-232's Douglas SBD-3 Dauntless dive bombers. The planes landed on Henderson Field, named for Major Lofton Henderson, who had been killed in the Battle of Midway while commanding VMSB-241. In the following days, both the dive bombers and the fighters were to wreak havoc against both enemy surface shipping and attacking aircraft. These two squadrons were reinforced on 30 August when MAG-23's remaining two squadrons, VMF-224 and VMSB-231, arrived. The squadrons on Guadalcanal called themselves the Cactus Air Force after the codename for Guadalcanal. Brigadier General Roy S. Geiger arrived on 3 September to take over as Commander, Aircraft Cactus. VMF-121 arrived on 9 October. One of its pilots, Captain Joseph J. Foss, ended the war as the Number 2 Marine Corps ace with 26 planes to his credit.

On 26 December Brigadier General Francis P. Mulcahy, the Commander of the 2d MAW, arrived at Guadalcanal to relieve Colonel Louis E. Woods as ComAirCactus. On 12 February 1943, VMF-124 arrived at Henderson Field with 12 new inverted-gull-winged Vought F4U Corsairs, which were faster and had twice the range of any Japanese fighter. By the middle of the year, all eight Marine fighter squadrons in the South Pacific were flying the Corsair.

On 21 February, the Russell Islands were taken, and an airstrip was constructed on Banika from which MAG-21 began flying three squadrons of F4F Wildcats. Munda in the Solomons fell on 5 August, and on the 14th, VMFs 214 and 221 moved onto the field to begin operations against the Japanese on other islands in the Solomons chain. The next island to be taken was Bougainville. To support the operation, Aircraft Solomons, formerly AirCactus, had 52 squadrons, 14 of them Marines, totaling 728 aircraft. In the attack against Hellzappapin Ridge on Bougainville Marine aviators for the first time supported ground troops in a mission beyond the scope of artillery.

To pound the Japanese stronghold at Rabaul on the island of New Britain, not far from Bougainville, ComAirSols planned to employ medium and heavy Army Air Forces bombers, as well as fighter sweeps. His star performer in the fighter sweeps was Major Gregory Boyington, who became commander of VMF-214 in September. At the end of the war, Boyington emerged as
the Marine Corps' ranking ace with 28 planes to his credit and with a Medal of Honor.

With the Solomons secured, the Marines' axis of attack shifted to the Central Pacific. After Tarawa in November 1943, the senior Marine in the Pacific, Major General Holland M. Smith, recommended that at least one Marine aircraft wing be assigned specifically for direct air support in landing operations. Because the Navy was reluctant to provide escort carriers from which Marine pilots could fly, Marine aviation in the Central Pacific was limited to flying rear area missions until 1944. The 4th Marine Base Defense Aircraft Wing, flying from Tarawa and Kwajalein, began hitting the bypassed Marshall atolls in what came to be known as "milk runs."

Nine days after the airfield had been taken on Peleliu in September 1944, Marine Corsairs of VMF-114 began providing close air support to the units attacking Umurbrogol Ridge, less than 1,000 yards from take off. VMF-122 arrived at the beginning of October to join 114 in delivering napalm and rockets. Marine Night Fighter Squadron 541 (VMF[N]-541), with radar-equipped Grumman F6F Hellcats, also deployed to Peleliu. The first night fighter squadron, VMF(N)-531, had been activated in November 1942. Marine night fighters first operated in combat from strips on Bougainville.

Two more Marine fighter squadrons and a torpedo-bomber squadron arrived on Peleliu in October, and, after the island was secured, took up the sometimes dangerous milk runs against the remaining Palau and Yap. The 2d MAW came up from the New Hebrides and took control as Garrison Air Force, Western Carolines, with two additional groups, MAGs 11 and 25.

In April 1944, the 9th MAW was activated at Cherry Point, and in May the 3d MAW deployed to Ewa. As of the end of June 1944, Marine aviation consisted of five wings, 28 groups, 126 squadrons, and 112,626 Marines, of whom 10,457 were pilots.

In August 1944, General Vandegrift convinced Admiral Nimitz to put Marine squadrons on a number of escort carriers, or CVEs. In October, Marine Carrier Groups, Aircraft, FMFPac, was activated in Santa Barbara to implement the decision. In the end, eight carrier air groups, designated MCAGs, were activated. The Marine Corps also began forming bomber squadrons, using the North American B-25 Mitchell bombers, designated in the Navy as PBJs, at Cherry Point. Before the end of the war, five Marine PBJ squadrons deployed to the South and Southwest Pacific and two to the Central Pacific.

For the landings in the Philippines, General MacArthur wanted VMF(N)-541, then at Peleliu, assigned to his command, to provide close air support to Army infantry. Thus began a major Marine effort in which four air groups of fighters and dive bombers supported Army infantry to the end of the war.

During the Iwo Jima operation, following the initial landings on 19 February 1945, close air support came into its own when Colonel Vernon E. Megee's Landing Force Air Support Control Unit assumed responsibility for control of support aircraft of all services. The first two planes to land on the airfield came from Marine Observation Squadron (VMO) 4, which flew in from the escort carrier Wake Island. By 1 March, 16 light planes, the Stinson OY Sentinel—more popularly known as Grasshoppers—from VMOs-4 and-5, were flying observation missions, and calling in artillery and naval gunfire support for the frontline Marines.

Because of heavy losses sustained in kamikaze raids, Marine planes and pilots were employed on board the big fast carriers. As a result VMFs-124 and -213 in the Essex participated in the massive January 1945 raids against ports and airfields in Indochina. During the Iwo Jima operation when fast carriers attacked the Home Islands, eight Marine squadrons were on board Bennington, Bunker Hill, Essex, and Wasp. All-Navy air groups replaced the Marines on the latter two carriers in mid-March. When the Franklin joined the fighting, it carried two fresh Marine squadrons, VMFs-214 and-452. On 19 March, however, a Japanese suicide plane dove into the Franklin off the coast of Japan, thoroughly gutting it. This left four Marine squadrons operating from the Bunker Hill and the Bennington, both of which played a large role in the Okinawa campaign.

At Okinawa, all the land-based air support was under the Tactical Air Force, Tenth Army, with Major General Mungle as tactical air commander. The major Marine command on Okinawa, III Amphibious Corps, headed by Major General Roy S. Geiger, had four VMOs which moved onto Yontan and Kadena airfields immediately after the landing on 1 April 1945. They spotted for artillery and naval gunfire, and evacuated wounded from the front lines. Within 10 days after the landing, MAG-31 and
MAG-33 were sending Corsairs into combat from Yon- tan and Kadena. In all, there were 200 Marine planes on the island.

Joining these land-based Marine squadrons were 10 more on board carriers at sea. The first carrier-based strike flown by Marine fighters, dive bombers, and torpedo bombers came on 10 May from the Block Island, which was joined 11 days later by the squadrons on the Gilbert Islands. To the dismay of the carrier-based Marine pilots, instead of flying missions in support of their fellow Marines on the ground, they were employed against enemy airfields on Sakishima Gunto, southwest of Okinawa.

Block Island was hit and badly damaged by kamikazes on 11 May, taking it and its Marine squadrons out of the war, leaving only VMFs-112 and -123 in the Bennington flying from carriers off Okinawa. In almost continuous operations from 16 February to 8 June, the pilots of these two squadrons shot down 82 enemy aircraft, destroyed another 149 on the ground, dropped over 100 tons of bombs, and fired more than 4,000 rockets, while sustaining casualties of 18 pilots killed and 48 planes lost.

In December 1945, the 3d Wing was decommissioned at Ewa, followed in March 1946 by the 4th and 9th Wings. In December 1946, the 2d Wing at Cherry Point was redesignated as Aircraft, Fleet Marine Force, Atlantic.

Following the end of the war, Marines in the Pacific took part in the occupation of Japan and North China. The first echelon of MAG-31 and the aircraft of VMF-441 flew to Yokosuka from Okinawa on 7 September to become the first Marine air to operate in Japan. A week later MAG-22 took over Omura airfield, which became the base of Marine air operations in southern Japan. MAG-22 left for the United States on 20 November 1945, followed on 20 June 1946 by MAG-31, completing the role of Marine Corps aviation in the occupation of Japan.

Meanwhile, in China, on 6 October, the 1st MAW established its command post at Tientsin. MAGs-12 and -24 were at Peiping, while MAGs-25 and -32 were further south near Tsingtao. On 1 November, the wing’s planes began flying “show of strength” missions, and frequently received ground fire from Communist guerrilla forces. The reduction of Marine air in China began in April 1946, when MAG-12 returned home, followed a month later by MAG-32. The last aviation elements left China in January 1949.

Marine aviation underwent several major changes after the war. A Marine study board recognized that helicopters flying from the decks of carriers presented the optimum solution to the threat of nuclear weapons during the critical ship-to-shore movement, and recommended the activation of an experimental helicopter squadron at Quantico. Although the appropriate model helicopters for such operations had not yet been designed, much less manufactured, Marine Experimental Helicopter Squadron 1 (HMX-1) was activated at Quantico on 1 December 1947. It did not receive its first planes until early the next year. Its work led to the publishing of the first doctrine for employment of helicopters, “PHIB-31, Employment of Helicopters (Tentative),” in November 1948.

The second major change to affect postwar Marine aviation occurred on 24 October 1948, when VMF-122, the Corps’ first jet squadron, commanded by World War II ace Major Marion E. Carl, and equipped with McDonnell FH-1S Phantoms, was activated at Cherry Point. In August that year, Major Carl, then a test pilot at Patuxent Naval Air Station, set a world three-kilometer speed record of 650.6 miles per hour in a Douglas D-558 Skystreak. In November 1949, the first enlisted pilots to fly the Lockheed TO-1 Shooting Star jet began transitional training at El Toro.

Following the invasion of South Korea and General MacArthur’s request for Marine support, the Joint Chiefs of Staff decided to send the 1st Marine Brigade, supported by its own air. The aviation component consisted primarily of three fighter-bomber squadrons equipped with late-model Corsairs, and a light observation squadron, VMO-6, which owned eight Grasshoppers and four Sikorsky HO3S-1 helicopters. Supporting the move to Korea were two Marine transport squadrons. As the United States became increasingly involved in the war, reserve units were mobilized, including a number of Marine squadrons.

When the brigade landed at Pusan it had support from Corsairs of VMF-214 on board the Sicily, and VMF-323 flying from the deck of the Badoeng Strait. Meanwhile, night fighter squadron VMF(N)-513, based at Itazuke, flew night heckler missions. The rest of the 1st MAW departed for the Far East on 1 September.

Marine pilots scored a number of “firsts” in Korea.

On August 1950, the first night helicopter evacuation of wounded occurred when an HO3S-1 of VMO-6
lifted Marines from Chindong-ni to Masan. Two days later came the first Marine helicopter rescue in Korea. Captain Leslie E. Brown flew an Air Force F-80 on 18 September in the first combat jet mission ever flown by a Marine aviator.

During the 1st Division's withdrawal from Chosin Reservoir a transport plane served as an airborne tactical air direction center. At the same time, other Marine transports landed at Hagaru-ri to bring in needed supplies and evacuate the wounded. As the breakout began on the morning of 6 December, Marine Corsairs guarded the column from overhead with rockets, napalm, and bombs.

In September 1951, Marine Transport Helicopter Squadron (HMR) 161, the first of its kind in the Corps, arrived with its Sikorsky HRS-1 aircraft, and began putting theory into practice by supplying infantry units in combat, lifting rocket batteries, and moving the division reconnaissance company to a mountaintop. During 1952 and 1953, F9F Panther jets began to replace the tried and proven Corsairs, while Fairchild R4Q Flying Boxcars augmented the World War II-vintage Douglas R4Ds. On 11 July, Major John F. Bolt, Jr., became the first Marine Corps jet ace, when he shot down his fifth and sixth MIGs over Korea, adding to the six planes he shot down World War II. By the ceasefire on 27 July 1953, the 1st Wing had flown 127,496 sorties while losing 436 aircraft.

In the 1950s, the Marine Corps reviewed the lessons of Korea. The role of the helicopter loomed large in future planning. With dependable helicopters now available, technical capabilities matched the doctrine of vertical envelopment developed earlier. Marine infantry and artillery units became largely helicopter-transportable, especially with the availability of heavy-lift aircraft. In addition, the Navy took an escort carrier, the Thetis Bay, out of mothballs for reconfiguration as a so-called "Landing Platform, Helicopter carrier" (LPH). The success of this led to the further reconfiguration of the Boxer and Princeton as LPHs, and the construction of new ones, all with the official title of amphibious assault ships.

The SATS, or Short Airfield for Tactical Support, using catapults and arresting gear, solved the problem of establishing high-performance tactical aircraft ashore early in an amphibious operation. It received its first combat use in Vietnam at Chu Lai.

In July 1957, Major John H. Glenn, Jr., broke the existing transcontinental speed record, flying a Crusader jet from California to New York in three hours and 23 minutes. On 20 February 1962, Lieutenant Colonel Glenn lifted off from Cape Canaveral, Florida in the first American manned space capsule to orbit the earth.

During the July-August 1958 Lebanon crisis, Marine F-8 Crusaders from VMF-333 were actively involved, flying cover from the decks of the Forrestal for American forces ashore. Four years later, during the Cuban missile crisis, pilots of Marine Composite Photo Squadron (VMCJ) 2 flew photo-reconnaissance missions in Chance Vought F-8 jets over suspected missile sites in Cuba as part of a combined Marine-Navy unit. Meanwhile, also deployed and on alert were elements of MAGs-14, -24, -26, -31, and -32.

Marine operational involvement in the Vietnam War began 15 April 1962, when Marine Medium Helicopter Squadron (HMM) 362, commanded by Colonel John F. Carey, arrived at Soc Trang, southwest of Saigon, with its Sikorsky UH-34s. The operation was called "Shu-Fly" and its mission was to lift soldiers of the Vietnamese Army into combat. In September that year, the Shu-Fly operation moved north to Da Nang. Within three years, half of the HMMs in the Marine Corps had rotated through Da Nang on tours of duty.

Major Marine Corps involvement in the war followed the 8 March 1965 landing of the 9th Marine Expeditionary Brigade at Da Nang. The first Marine fixed-wing aircraft squadron, Marine Fighter Attack (VMFA) Squadron 531, landed its McDonnell F4B Phantom jets there the following month. On 11 May, the advance echelon of the 1st Marine Aircraft Wing arrived to establish the senior Marine air element in Vietnam.

While events were heating up in Southeast Asia, in April 1965, Marine helicopter forces on the other side of the world went into action when political upheavals in the Dominican Republic plunged that country into civil war, forcing the evacuation of American nationals. On 26 April, HMM-264 on board the Boxer, arrived off the coast to begin lifting out Americans. When infantry Marines landed at Santo Domingo on the 28th to provide security for the airlift, the UH-34s of HMM-264 shuttled between the ship and a polo field, taking out 684 evacuees by midnight. On 5 May, HMM-263 arrived on board Okinawa to augment HMM-264. The departure of the Boxer in early June marked the beginning of the withdrawal of Marine forces on the island.
By mid-summer 1965, there were four MAGs in Vietnam: MAG-12 with its A-4s was at Chu Lai; MAG-11, a fixed-wing group arrived at Da Nang from Japan on 7 July; MAG-16 detached its fixed-wing squadrons to MAG-11 and in September moved its headquarters and helicopters to Marble Mountain. At about the same time, MAG-36—a helicopter group—arrived from California and set up at Chu Lai.

Marine air was fully tested during its support of the defenders of Khe Sanh, when unprecedented tonnages of bombs devastated the hills around the combat base. In addition, the Marines at Khe Sanh were supplied by the "premier air logistical feat of the war."

Marines began leaving Vietnam in July 1969. Elements of the 1st Wing also departed, cutting wing strength to six groups and 26 tactical squadrons. Then, between January and April 1970, a helicopter squadron and three fixed-wing squadrons redeployed. Later in the year, the strength of the 1st Wing dropped to just two groups—MAG-11 at Da Nang with about 80 fixed-wing aircraft and MAG-16 at Marble Mountain with approximately 150 helicopters.

The only Medal of Honor awarded a Marine aviator in the Vietnam War went to Major Stephen W. Pless, a helicopter pilot, who rescued four wounded soldiers stranded on a beach, surrounded, and under heavy enemy attack. Major Pless brought his UH-1E gunship into the fight, landed on the beach, and together with his three crew members, fought off a large Viet Cong force until the wounded could be loaded on board his aircraft, and flown out to safety.

By March 1972, there were only about 500 Marines left in Vietnam—embassy guards, air and naval gunfire spotters, and advisors to the Vietnamese Army and Marines. At the end of the month, the North Vietnamese began their Easter Offensive with a four-division drive across the Demilitarized Zone separating North and South Vietnam. MAG-15 went into Da Nang with four F-4 Phantom squadrons. Farther south, at Bien Hoa, MAG-12 flew in two squadrons of A-4 Skyhawks. Meanwhile, on board the Coral Sea, Marine All Weather Attack Squadron 224, with its A-6 Intruders, flew most of its missions over Laos and North Vietnam. Marine Medium Attack Helicopter (HMA) Squadron 369 flew new Marine AH-1J Sea Cobra helicopters in armed helicopter strikes. MAG-15 moved to Nam Phong in Thailand to support on-going operations in Vietnam.

Even during the Vietnam War, Marine aviation was looking to the future. Out of Vietnam came the decision to acquire the British-developed Hawker-Siddeley AV-8A Harrier, a strike aircraft with a unique vertical/short takeoff and landing (VSTOL) capability. Other new aircraft followed, including the AV-8B Harrier II, the F/A-18 Hornet, and the CH-53E Super Stallion helicopter.

At the same time, the Navy was developing a new class of amphibious ship, the LHA, which could handle helicopters from its flight deck and amphibious vehicles from its hold. The first was the Tarawa, followed by four others.

Marines saw further action in Southeast Asia in 1975. Marine helicopters evacuated 276 Americans, third-world nationals, and high-ranking Cambodian officials from Phnom Penh, just before it fell to the Communists. With the collapse of the South Vietnamese government, there was another evacuation, this time from Saigon. Provisional Marine Aircraft Group 39 took out over 395 Americans and 4,475 Vietnamese from Ton Son Nhut Airport. From the roof of the American embassy in Saigon, Marine helicopters flew out 978 Americans and 1,120 Vietnamese and foreign nationals to ships offshore.

Marine aviators were busy on the other side of the world, also, in the post-Vietnam era. In April 1980, six Navy RH-53D helicopters flown by pilots of MAG-26 were involved in the abortive attempt to rescue hostages taken when the American embassy in Tehran was stormed and taken. For a number of reasons, the mission failed, with the loss of three Marine lives.

The deteriorating situation in Lebanon in mid-1982 resulted in the commitment of Marines ashore. Marine amphibious units rotated in and out every few months. In each deployment helicopter squadrons played an important role.

On its way to Beirut to relieve the 24th MAU, the 22d made a detour to land on Grenada on 25 October 1982. In this operation, the Marine aviators of HMM-261 had two Cobras shot down and three Marine flyers killed.

As it enters the last quarter of the its first century, Marine aviation, as the rest of the Corps, faces new challenges, aided by the prospect of new equipment and technology and a dedication to maintain the standards set by Marines in earlier years. — Benis M. Frank
On 22 May 1912, First Lieutenant Alfred A. Cunningham reported for duty at the Navy Aviation Camp, Annapolis, Maryland. Lieutenant Cunningham became the Marines' first qualified aviator later that year, when he soloed after two hours and 40 minutes of flight instruction. The single-engine, twin-propeller, B-1 biplane being flown by Lieutenant Cunningham in this painting was a Wright Brothers aircraft purchased by the Navy. Cunningham made almost 400 flights in it during the period from October 1912 to July 1913.
Marine aviation expanded rapidly after America’s entry into World War I, but it was given two disparate missions—anti-submarine patrol using seaplanes and ground support using landplanes. The Marines’ 1st Aeronautic Company (seaplanes), became the first fully trained and equipped American aviation unit to go overseas when it deployed to the Azores in early 1918. The 1st Aviation Force (landplanes), landed—less aircraft and equipment—in France in July. During the wait for their equipment to arrive, the 1st Aviation Force’s eager pilots flew with British and French units. On 28 September 1918, in the skies over Belgium, First Lieutenant Everett S. Brewer and Gunnery Sergeant Harry B. Wersheiner scored the Marines’ first aerial victory while flying with Royal Air Force Squadron 218.
The squadrons of the Ist Aviation Force performed creditably during the war despite their shortage of aircraft, but they were never used to support the Marine ground troops. Assigned to the Day Wing of the U.S. Navy's Northern Bombing Group, they were programmed to carry out a bombing campaign against German submarine bases located along the Belgian coast. When the Germans evacuated these bases, the Marine squadrons were assigned the mission of general support of the British and Belgian armies. During 2-3 October, Marine airmen operating with Royal Air Force Squadron 218, flew the first aerial resupply mission in the history of Marine aviation, when two planes dropped over 2,600 pounds of food and stores to a French infantry regiment that had been isolated in the front lines for several days.
Marine aviation underwent a major reduction in personnel and equipment after World War I due to demobilization. Yet progress in the area of air-ground operations continued relatively unabated because of Marine Corps “expeditionary duty” in the Dominican Republic, Haiti, Nicaragua, and China. In Nicaragua, Marine pilots led by Major Ross E. Rowell pioneered in the use of dive-bombing against an organized enemy when they attacked the guerrilla forces of Augusto Sandino at Ocotal on 16 July 1927. Marine aviators took part in many other operations against Sandino’s forces: at Quilali, El Chipote, and, as this painting illustrates, at Murra, which is near Ocotal.
Besides assisting Marines in combat, Marine aviation enlarged its utility transport role, using newly acquired Atlantic Fokker tri-motors. The first of these transports arrived at Managua from the United States in December 1927. It proved so valuable that two additional tri-motors were soon put into service. The tri-motors could make the trip from Managua to Ocotal in one hour and 40 minutes. The same trip by ox cart or mule train took 10 days to three weeks, depending upon the condition of the trails.
World War II began in disastrous fashion for the United States, but by August 1942, the damage received by Marine air from the Japanese attacks on Oahu and Wake Island was rapidly being repaired. Fleet actions in the Coral Sea and near Midway Island had temporarily halted the Japanese advance, and America prepared to take the offensive. When it became known that the Japanese were constructing a new airfield on Guadalcanal, the Joint Chiefs of Staff issued a directive calling for the capture of one or more locations in the southern Solomons. Landings were made at Tulagi and Guadalcanal on 7 August. One of the first objectives was the partially completed airfield, which was quickly named Henderson Field in honor of Major Lofton R. Henderson, a Marine dive-bomber pilot who was shot down at the Battle of Midway.
Fogerty’s Fate, Lieutenant Colonel A. Michael Leahy, USMCR.

Watercolor—reconstruction.

(18”×20”)

Appalling shortages of everything earned the battle to hold Guadalcanal the name “Operation Shoestring.” Henderson Field was a prime example. When it was dry, it was a “bowl of black dust,” and when it was wet it was “a quagmire of black mud” that made take-offs resemble “a fly trying to rise from a runway of molasses.” This painting shows a Douglas SBD dive-bomber which had crash-landed and come to rest in a machine gun pit, while another SBD, piloted by Second Lieutenant John F. Fogerty, attempts to take off on a bombing mission. Lieutenant Fogerty crashed moments later. Both he and his gunner were killed.
Douglas SBD "Dauntless" dive bombers line up on a taxi strip at Henderson Field. SBDs from Marine Scout-Bomber Squadrons (VMSBs) 231 and 232 became crucial to continued success at Guadalcanal when the Navy's withdrawal of its carrier forces left them as the Marines' only strike weapon for use against Japanese convoys and destroyers running "The Slot."
Marine fighter pilots flying from Henderson Field destroyed overwhelming numbers of Japanese aircraft, thereby exploding the myth that Japanese pilots and their “Zero” fighters were invincible. The Grumman F4F-4, the Marines' most important fighter during the battle for Guadalcanal, was inferior to the Zero in terms of speed and maneuverability, but its pilots held their own in aerial combat by exploiting the airplane's strengths in the areas of superior armament and rugged construction, as well as their own superior training. In February 1943, an improved Marine fighter, the Vought F4U "Corsair," faster and possessing more firepower than any fighter the Japanese had, arrived at Guadalcanal. By September all Marine fighter squadrons in the Pacific had transitioned to the F4U.
By 1943 Marine pilots were flying aircraft that were equal or superior to the planes being flown by the Japanese. This growing technological advantage, however, would have been far less significant had it not been for the tireless efforts of Marine maintenance personnel who worked around the clock to keep the new aircraft operationally ready. This scene depicts mechanics working through the night to service a "Corsair."
After the successful seizure and defense of Guadalcanal, Marine aviation was used to support a series of island-hopping campaigns in both the South and Central Pacific theaters. Marine aviators flying from hastily built coral airstrips during most of the war, shot down large numbers of enemy aircraft and refined their concept of close air support. This painting of the control tower at Cape Gloucester evokes memories of the typical airfield which became “home” to Marine airmen.
In 1944 two distinctly different considerations caused Marine squadrons to go on board Navy aircraft carriers. First, the vast distances between objectives in the Central Pacific mandated that Marine Corps squadrons be “carrier-based” in order to provide support to Marine ground forces. Second, the enemy’s use of Kamikaze suicide tactics necessitated the Navy’s temporary employment of Marine fighter squadrons to increase the fighter strength of its carriers. This illustration depicts an air intelligence officer debriefing pilots who have just returned to their carrier after a raid.

Aviators’ Debriefing, Major Alex Raymond, USMCR. Pen, ink, and watercolor on illustration board.
(18”x18¼”)

Cat. No. 90-23-5
New aircraft with improved capabilities were introduced to the Marines as the war went on. The Curtiss SB2C "Helldiver" was a large dive-bomber designed as a successor to the Douglas SBD. In this painting Marine ordnancemen load an SB2C’s guns in preparation for a combat mission “somewhere in the Pacific.”
The Japanese island of Okinawa was the scene of the last great battle of World War II. Fought from April to June 1945, the battle saw the application of all the aviation combat support capabilities which Marines had learned during the preceding four years. In the campaign, Marine aviation, operating from both land bases and aircraft carriers, supported Army, Navy, and Marine forces day and night. When active resistance ended on Okinawa in June, Marines continued flying missions against other islands in the Ryukyus chain. This painting shows two Grumman F6F "Hellcats" from Marine Night Fighter Squadron 542 taking off for a mission from Chimu Field, Okinawa, in July 1945.
Following World War II, the introduction of the helicopter revitalized and reshaped the role of Marine aviation in amphibious warfare. The need for tactical dispersion caused by the advent of atomic weapons led the Marine Corps to develop the concept of “vertical envelopment,” i.e., the use of helicopters to land forces at the point of attack. Put to the test during the Korean War, the helicopter quickly proved its value. This scene shows a Sikorsky HRS-1 helicopter from Marine Helicopter Transport Squadron 161 supporting a troop lift during late 1951.
The helicopter emerged as one of the Korean War's most significant new weapons. The Marines' first combat use of the helicopter occurred during the Pusan Perimeter fighting in August 1950, when Sikorsky HO3S-1 helicopters from Marine Observation Squadron 6 performed liaison and reconnaissance duties in support of the 1st Provisional Marine Brigade. In September 1951, Marine Helicopter Transport Squadron 161 arrived in Korea with larger, more capable HRS-1 helicopters. In addition to reconnaissance, troop transport, and aerial resupply, Marine helicopters conducted nearly 10,000 medical evacuations. In this painting, HRS-1 helicopters disembark Marines during combat operations in Korea, October-November 1951.
Marine aviation skillfully blended the new with the old in Korea. Helicopters and jets were used alongside "old reliables" such as the F4U "Corsair" in supporting Marine ground forces. This painting depicts a Marine F4U "at rest" in a lonely valley after being shot down in Korea in 1951.

*Down in the Valley*, Master Sergeant John DeGrasse, USMC.
*Oil on canvas.*
*(35"x30")*
Marine aviation was again committed to combat in Asia during the spring of 1962. In April, a Marine task unit codenamed “Shufly” including a transport helicopter squadron were sent to South Vietnam to support government forces against Communist guerrillas. Their small-scale operation continued until March 1965, when a step-up in enemy activity caused the landing of a Marine air-ground task force of brigade size. The UH-34 “Sea Horse” helicopter shown here landing to pick up a casualty, was the same kind of helicopter used by the “Shufly” transport squadrons from 1962-1965.
Marine aviation’s involvement with combat operations in Vietnam increased steadily after the March 1965 landing of the 9th Marine Expeditionary Brigade (9th MEB). The arrival of F-4 “Phantom II” jets from Marine Fighter Attack Squadron 531 (VMFA-531) at Da Nang on 11 April marked the entry of Marine tactical fixed-wing units into the conflict. On 7 May, the 3d MEB made an unopposed landing at Chu Lai in order to secure an area for construction of a second Marine jet base. In this scene a VMFA-115 aircrew makes preparation for launch on an F-4 combat sortie. During the war, the McDonnell-Douglas F-4 performed the dual roles of air interceptor and ground attack aircraft.
Marine fixed-wing squadrons were able to deploy rapidly from bases in Japan and the United States because in-flight aerial refueling made trans-oceanic flight movement possible. Since 1960 Marines had worked on the development of the Lockheed C-130 “Hercules” transport for use as a refueling tanker. By 1962 the trans-Pacific flight movement using the KC-130 (i.e., a C-130 configured as a refueler) had become a “standard” deployment operation. Here a KC-130 from Marine Aerial Refueler-Transport Squadron 352 (VMGR-352) refuels two F-4s on a 1968 trans-Pacific flight to Okinawa from the United States.
One of the accomplishments of Marine aviation during the Vietnam build-up was installation of the Short Airfield for Tactical Support (SATS) at Chu Lai in the spring of 1965. SATS was an "instant airfield" designed around catapult and arresting gear equipment similar to that used on aircraft carriers, a Tactical Airfield Fuel Dispensing System (TAFDS) adapted from an existing "across the beach" amphibious fuel handling system, and a runway/taxiway system using aluminum planking. This painting shows a Douglas A-4 "Skyhawk" being readied for catapult launch from the SATS strip at Chu Lai.
Flight operations from the SATS field at Chu Lai represented a combat “first” for Marine aviation, but other maintenance activities, such as ordnance handling, were carried out in a manner relatively unchanged from the way it was done during Korea, World War II, and World War I. Here a Marine ordnanceman inserts 20mm ammunition into belts for one of the squadron aircraft based at Chu Lai.
The Douglas A-4 “Skyhawk” was a light-weight single-engine jet aircraft primarily designed for daylight/visual-flight attack missions. The Marines used it extensively during the Vietnam War for close air support, medium-range interdiction, and helicopter escort missions. This night scene captures an A-4 on the flight line at Chu Lai.
The TA-4, a special two-seat version of the Douglas "Skyhawk," was used by Marines for airborne tactical air coordination. In this painting a TA-4 assigned to Headquarters and Maintenance Squadron 12 (H&MS-12) has been "downed" for flight operations because of inoperative radios.

*Down for Radios*, Lieutenant Colonel A. Michael Leahy, USMCR. Acrylic. (22"x30")

Cat. No. 6-4-124
The Grumman A-6 "Intruder," a high-performance, subsonic, all-weather attack aircraft, was flown by Marines from both land bases and aircraft carriers during the war. In addition to its attack role, specially modified Intruders were used for electronic warfare support and in-flight aerial refuelers. In this scene, an A-6 from Marine Attack Squadron (All Weather) 533 (VMA[AW]-533) is undergoing final checks before taxiing out of its revetment at Chu Lai.
In Vietnam, more than any previous war, Marine aviation was able to use the majority of its energies to support Marine ground forces. The greatest portion of all Marine fixed-wing sorties were in support of III Marine Amphibious Force (III MAF), the umbrella command for all Marine air-ground forces in Vietnam, and nearly all Marine helicopter sorties were in support of III MAF. Here a Marine radioman watches from the Command Operations Center (COC) at Con Thien for an inbound flight of Marine medevac (medical evacuation) and resupply helicopters.

*Helicopter Watch*, Captain Leonard H. Dermott, USMCR. *Acrylic.*

(40"x20")

Cat. No. 3-4-131
Every operational Marine helicopter model saw service during the war. From 1962 until the arrival of the Boeing CH-46 helicopter in 1966, the Sikorsky UH-34 bore the brunt of Marine rotary-wing operations in Vietnam. In this painting, a UH-34 is landed in response to a request from a combined action platoon for the medical evacuation of civilians.
The Boeing-Vertol CM-46 "Sea Knight" was a twin-engine, tandem-rotor transport helicopter procured to replace the aging UH-34. New CH-46 aircrews underwent realistic operational training in the United States before being sent to Vietnam. Here a CH-46 from Marine Medium Helicopter Squadron 162 (HMM-162) lifts off for a landing zone in South Carolina from the USS Boxer (LPH 4) while participating in Operation Riverine 1-68. Such exercises especially prepared Marine helicopter pilots for duty with the Seventh Fleet's Special Landing Force in Vietnam.

Vertical Envelopment, Colonel Edward M. Condra III, USMC. Acrylic on canvas.
(42"x30")
Cat. No. 42-4-80
Vietnam has been called a helicopter war because of the heavy use of rotary-wing aircraft for troop transport, resupply, medical evacuation, reconnaissance, and gunship support. Here Marines are seen rapidly disembarking from a Bell UH-1 "Iroquois" (also popularly known as a "Huey") during a vertical assault near Da Nang.
The Bell UH-1 was the first turbine-powered helicopter to be placed in service by the Marine Corps. It was introduced into Vietnam in 1965 by Marine Observation Squadron 2 (VMO-2). The “Huey” was designed for observation and light utility duties, but a void in Marine aviation's ability to provide close-in fire suppression, coupled with the UH-1's ordnance capabilities, led to a situation in which by 1968 nearly two-thirds of all Marine UH-1 sorties were being flown as gunship missions. In this painting a UH-1 gunship from VMO-2 is shown flying protective cover for UH-34 helicopters during an “insertion” of a Marine reconnaissance team northwest of An Hoa.
In 1969 the pressure to use Marine UH-1s as gunships was somewhat relieved when the Army transferred 24 Bell AH-1G “Huey Cobras” to the Marine Corps. The AH-1G was a single-engine, two-place helicopter which had been designed from the ground up as a gunship. Armed with a 7.62mm minigun and a 40mm grenade launcher, it also had four “wing” stations for delivery of 2.75-inch forward firing aerial rockets. Here a Marine “Huey Cobra” assigned to Marine Observation Squadron 2 is shown in a rocket run on Viet Cong positions south of Da Nang.
In April 1972, less than a year after the Marine air-ground team had withdrawn from Vietnam, a massive North Vietnamese attack into South Vietnam required the re-entry of Marine aviation into Southeast Asian combat. Marine F-4 and A-4 squadrons were sent to Da Nang and Bien Hoa respectively. Later the ongoing reduction of U.S. forces as part of the Vietnamization process caused the movement of two Da Nang-based F-4 squadrons and an incoming A-6 squadron to Nam Phong, Thailand. Nam Phong was ruefully called “the Rose Garden” by the Marines stationed there because of its austere living conditions. Here an A-6 from Marine All Weather Attack Squadron 533 is shown on its landing approach to Nam Phong.

Rose Garden Approach, Major John T. Dyer, USMCR.
Watercolor on paper.
(12”x16”)
Cat. No. 1-1-382
When combat operations in Vietnam ended, Marine aviation turned its attention to possible employment in other regions of the world. Plans for use of Marine forces along NATO's northern flank brought requirements for cold weather training. Here a CH-53 helicopter lifts equipment ashore during an amphibious exercise held at Reid State Park in Maine in 1972. The Sikorsky CH-53 "Sea Stallion" provided Marines with their first true heavy-lift helicopter.
After Vietnam, the emphasis in Marine aviation was on retraining and increasing unit readiness. This painting captures two A-4 “Skyhawks” streaking down the runway on a night section take-off during a training mission.

Takeoff. R. G. Smith. Oil on Masonite. (20½” x 30½”)

Cat. No. 109-2-3
Marine aviation is comprised of more than aircraft, aircrews, and maintenance personnel. Among other things, a Marine aircraft wing operates an array of radars and communications equipment in order to provide the commander of a Marine air-ground task force with the capability to employ all his weapons systems in concert as a force of combined arms. In this scene, a Marine air control group radar installation is shown as it was set up for an air war exercise held at Marine Corps Air Station, Yuma, Arizona.
Crash crew personnel are another segment of Marine aviation often overlooked, but vital to the safety of flight operations. Here a Marine crash crew trainee braces against fire hose recoil during training at Marine Corps Base, Twentynine Palms, California.
The most important part of any organization is the people, and Marine aviation is no exception. In this painting we see typical clothing and equipment worn by aviation personnel in 1983. From left to right are a helicopter pilot dressed in appropriate ensemble, an enlisted lineman in coveralls, a naval flight officer in the flying gear of a fixed-wing airman, and a Marine aviator wearing the combination of service uniform and flight jacket.
Britain's Hawker Siddeley AV-8 "Harrier" was an aircraft ideally suited for Marine aviation. A light-attack aircraft, it offered the best of both worlds: tactical jet speed and weapons delivery coupled with vertical/short take off and landing (V/STOL) capabilities. The Marines' first AV-8s went to the Naval Air Test Center at Patuxent, Maryland for acceptance trials. This painting of the first AV-8 delivered to the Naval Air Test Center was done on part of one of the packing crates in which the aircraft was shipped. Its title comes from the name given the evaluation, Project Hoot Owl.
In April 1971, following service trials at the Naval Air Test Center, Patuxent, Maryland, the first AV-8s were assigned to Marine Attack Squadron 513 (VMA-513) located at Marine Corps Air Station, Beaufort, South Carolina. This scene captures three Harrier aircraft on the deck at landing zone (LZ) Bluebird, a helicopter LZ in the Marine Corps Base, Camp Lejeune, North Carolina, complex.

Harriers in Rain, Master Sergeant John Degrasse, USMC.
Acrylic.
(24”x36”)
Cat. No. 30-4-16.
The McDonnell-Douglas F/A-18 "Hornet" was a significant advance for dual-mission-capable aircraft. In its ground attack role it can deliver ordnance with an accuracy far superior to the F-4, and as an interceptor its maneuverability and missile selection capability make it a formidable fighter aircraft. This painting portrays Marine test pilots flying the F/A-18 during its evaluation for service suitability at the Naval Air Station, Patuxent River, Maryland.

Over the Choptank River, James Butcher. Oil on canvas. (22"x28") Cat. No. 33-2-132
Since its inception, Marine Corps aviation has had as its primary reason for being, the support of Marine ground forces. This painting, which was used as a recruiting poster during the 1920s, has captured both the spirit of adventure and the special relationship between Marine air and Marine infantry which is at the heart of Marine aviation.
This device is the oldest military insignia in continuous use in the United States. It first appeared as shown here on Marine Corps buttons adopted in 1804. With the stars changed to five points the device has continued on Marine Corps buttons to the present day.