



and other supplies, and to do what engineering work could be rigged without equipment to improve the condition of the airfield.

On August 12, the field had 3,800 usable feet, 400 drums of aviation gasoline, and a captured Japanese radio which was used to transmit a message that the field was "ready to receive fighters and dive-bombers." At this point, it was found that the transports bringing VMF-223 and VMSB-232 were being held up at Suva because of the action on the 8th. There was also some word from the task group commander that the squadrons needed more carrier time before he could bring them forward and launch them, and that he "was writing a letter about the subject." Admiral J. S. McCain replied by dispatch that he needed fighters and dive-bombers "now" at Guadalcanal, and the ships were underway. Some pilots from 223, who were fresh out of flight school, were traded for an equal number from Col. Bauer's 212 at Efate, who had been out a little longer and were more experienced. This was done on the way to the launch point and, on the 20th, a mighty cheer went up on "the canal" when the 19 F4Fs and 12 SBDs began to land in the waning hours of the afternoon.

The Solomons Campaign

Guadalcanal was undoubtedly a case of living from crisis to crisis in aviation supply, maintenance and availability of aircraft for periods that seemed interminable. As if these problems were not enough, the days were punctuated with either massive bombing raids or "washing machine Charlie" single bombers overhead all night.

From late August 1942, when the Marine Aviation defense operation began, until the end of the immediate threat in mid-November, there were gradual increases in fighter and dive-bomber strength. While most of these came from scheduled commitments of units deployed from Hawaii or the West Coast, during the early weeks, they came from VMF-212 in Efate and VMO-251 at Espiritu Santo, as individual reinforcements on temporary stays. On the same basis, detachments from carrier squadrons flew in for periods sometimes in excess of a month. Also, the Army Air Corps operated similarly and moved pilots in from training bases in the area as soon as they had a bare minimum of training. It was an "all-hands" evolution, for sure, and it was a major factor in saving Guadalcanal and giving the nation a foothold in the Solomons which was never relinquished.

It would be incomplete, indeed, to treat this critical period of Guadalcanal

without mention of those great leaders who "made it happen," the top of Marine Aviation, the Navy and the Army Air Corps. At the very top is Roy Stanley Geiger, who inspired and drove Marine Aviation to the levels of determination and stamina displayed at Guadalcanal. Heading the groups and squadrons supporting him were Colonel Bill Wallace of MAG-23, Lieutenant Colonel Dick Mangrum of VMSB-232 and Major John L. Smith of VMF-223. These were followed by Major Bob Galer of VMF-224 and Major Leo Smith of VMSB-231.

During the early weeks of September 1942, the fighter squadrons were periodically supported by aircraft and pilots of VMF-212, led by Lieutenant Colonel Joe Bauer, and VMO-251, with skipper Lieutenant Colonel John Hart. VMF-212 moved in permanently in mid-October, and VMO-251 (as a fighter squadron) under Major Joe Renner, arrived later. In early October, MAG-14, under Colonel Oscar Brice, relieved MAG-23 and brought VMF-121, commanded by Major L. K. Davis with Captain Joe Foss as Executive Officer; closely followed by VMSB-132 under Major Ben Robertshaw, and VMF-112, commanded by Major Paul Fontana. In mid-November, VMSB-131 and VMSB-142, under Lieutenant Colonel Pat Moret and Major Bob Richard, respectively, rounded out the Marine units participating in the critical August-November phase of the battle.

Units of the Army Air Corps and the Navy, were key participants in winning this lasting foothold in the Solomons at Guadalcanal.

December 1942 saw the beginning of Guadalcanal's establishment and build-up as the principal base for the move up the chain to zero in on Rabaul. The change didn't happen overnight, however. Air raids were somewhat less frequent, and there were daily signs of improvement in runways and taxiways. More aircraft of all types appeared in increasing numbers, and the aviation command was divided generally into a Strike Command at Henderson Field and a Fighter Command at Fighter Two.

There were many changes in command during the development of Guadalcanal as the anchor base for the reduction of the Solomons and Rabaul. Brigadier General Louis Woods relieved General Geiger in November and stayed until just before Christmas, when he was relieved by Brigadier General Pat Mulcahy. At this time, the air command was known as "Commander, Air Cactus," "Cactus" being the code name for the island. When Woods took over, the two tactical commands were newly formed under Colonel Al Cooley as Strike Commander and Lieutenant Colonel Joe



Above, the Grumman-designed TBF/TBM was used only as a regular bomber and rocket-firing aircraft by the Marine Corps. Right, though obsolescent by December 7, 1941, the SBD continued to serve with distinction through the Philippine campaign in 1945.

Bauer as Fighter Commander. Bauer was lost, however, in mid-November, and Lieutenant Colonel Sam Jack took the Fighter Command. By the time Mulcahy relieved Gen. Woods, Colonel Oscar Brice had taken over the Strike Command and in late January Lieutenant Colonel Ed Pugh relieved Jack as Fighter Commander, holding that job until after the assault on Munda, in early July.

In mid-February 1943, a major reorganization of the area command structure took place and Rear Admiral Charlie Mason came to Guadalcanal as Commander, Air Solomons, short-titled ComAirSols. Six weeks later, Admiral Marc Mitscher relieved Mason and stayed in the job until late July, when he was relieved by General Nate Twining of the Army Air Corps. The command passed from service to service until the Solomons were put in the "backwater" category and Rabaul had been bypassed and rendered useless. As these changes developed, and as more fighters, bombers and fields became available, the staffs of the fighter and strike commands grew in size and special qualifications. The switch to assault operations set the pattern for many similar chain-type offensives en route to Japan.

The first move forward was taken in late February as troops landed unopposed on the Russell Islands, 55 miles to the northwest. Navy Seabees had completed a field in six weeks, and a Marine air group was in full operation.

There were several other important items which marked the operations in the early months of 1943 as the drive "up the slot" got under way. First, was the arrival of VMF-124 in early February, equipped with the first of the Vought F4U *Corsairs* in the South Pacific theater, the "Bent-Wing Bird" to the Marines and "Whistling Death" to the Japanese. Since the *Corsair* had real performance superiority over the Japanese combat aircraft and much greater range than the F4F, things really began to happen in the daily routine of the air campaign. Within three months, all eight Marine fighter squadrons in the Solomons were not only equipped with the *Corsair*, but each squadron had been thoroughly trained in its employment and maintenance. This was just 12 months after the sorry situation faced by the Marine pilots at Midway.

AirSols routinely struck the airfields of southern Bougainville with escorted heavy bombers, night attacks by Navy

and Marine Corps TBFs, and some mining at night of the harbor areas by the TBFs. The shorter-range SBDs, as well, were invariably escorted in their routine reduction efforts against the fields in New Georgia. However, this does not mean that the defending Japanese had tossed in the towel; their fighter presence was made known repeatedly and invariably with surprise.

Almost as if to make known the fact that they were still "up there," down the slot they would periodically come, attacking ships at Tulagi or standing off the beaches of Guadalcanal. With allied strength at constantly growing levels, these forays were not only literally destroying Japanese naval aviation but, in the process, they were creating an ever-growing number of Marine, Army Air Corps and Navy fighter aces. The change in the character of air operations at this time, from defense to offense,

meant that most of the contacts with Japanese fighters, and in the case of the bombers with AA, were strictly in hostile territory. This increased emphasis on survival techniques, coast watcher networks, and rescue operations — the famed “Dumbo” missions.

The next big show was the assault on the central New Georgia airfields in order to be comfortably within fighter range of southern Bougainville. This began with initial landings of two companies of the 4th Marine Raider Battalion at the southern tip of New Georgia on June 24. The Japanese resisted these incursions fiercely with heavy air attacks and clouds of fighters, but they were met on D-day by a 32-plane, combat air patrol which was relieved on station from the fields at the Russells and Guadalcanal.

On July 9, the planned push from Rendova and New Georgia for the airfield at Munda Point began and, on the first day, the troops advanced half the distance to the field and were then stopped cold. Instead of a quick thrust to the airfield, it took the better part of six weeks to gain it and three Army divisions instead of the originally planned one. It was finally taken on August 5, and in nine days the Seabees had done enough so that two Marine squadrons could commence operations, VMFs 123 and 124. Big

strikes were run day and night against Ballale and Kahili, the major Japanese fields in southern Bougainville. In defending Munda, it is interesting to note that the Japanese expended 358 planes. Of the total, the Marines got 187, with the Army, Navy, New Zealanders and the AA sharing the balance. The cost was 94 aircraft, 34 of them Marine.

During the Munda and associated operations, attempts were made to accomplish a version of what later became the Marine close air support system. However, the difficulties of determining accurate positions in the jungle terrain made it impossible to achieve complete success. Attempts were made, which included air liaison parties with ground units, and a good deal was learned which refined subsequent operations, but it was a long way to the smooth doctrine which became operational in the Philippines.

On August 15, landings were made at Barakoma on Vella Lavella without much problem on the ground. However, as was anticipated, at only 90 miles from Kahili airfield the Japanese were overhead early and often. Again, continuous combat air patrols from Munda, similar to those at Guadalcanal and the Russells, for the landings there ensured that not one ship was hit during daylight. As was

becoming customary, the Seabees built a field for Marine fighters at Barakoma in short order. With that, plus the fields in the Munda area and the newly-formed Bomber Command from Guadalcanal, Kahili, Ballale, and the Shortlands began to feel the allied presence “in spades.” Several names became prominent in the fighter ace category at this stage of the Solomons operation. Famous among them were Marines Greg “Pappy” Boyington, Ken Walsh, Bob Hansen, Donn Aldrich and Wilbur Thomas.

September and October 1943 sounded the death knell for Japanese air operations from southern Bougainville as a result of the intensive operations. Ballale and Kahili began to take on the same lunar-landscape look that had signaled the end of operations at Munda and Vila plantation a few weeks before. But it was not the Japanese custom to give up without making it a costly affair in the air as on the ground.

Almost daily dive-bombing and strafing attacks were the routine life of the Japanese defenders but, in spite of these, operational aircraft continued to appear in the photo coverage of the airfields.

Admiral W. F. Halsey, and Adm. Nimitz had, some time before the reduction of Kahili, Ballale and the Shortlands, made the decision that the last step closest to



Rabaul would involve a total bypass of southern Bougainville. Under consideration were two much more lightly held areas of central Bougainville: Empress August Bay on the west coast, and Kieta on the eastern side. The decision was for Torokina Point at Empress August Bay and D-day was set for November 1. October became an extremely busy month with preparatory attacks from every possible base in the general area, from Rabaul to southern Bougainville. Included were commitments from General Douglas MacArthur for heavy air attacks on Rabaul and Kavieng, and planned carrier air assaults on Rabaul.

The main landings at Torokina put the assault elements of the 3rd Marine Division ashore as planned, with the forward echelon of the 1st Marine Air Wing and its fighter command, on November 1. Opposition was light but very effective. There was no airfield left on D-day, nothing but a narrow coconut grove at Torokina Point. Nevertheless, on D-day plus 1, the fighter command was on the air with radar coverage and air-ground communications, controlling 32 fighter patrol overhead. This continued until the Seabees finished enough of the Torokina strip 40 days later.

In addition to control of the day fighter patrols, a Marine-manned New Zealand ground control intercept radar was landed early in the operation for the control of night-fighters, but was not sited until about the time Torokina airfield was completed. Night-fighters from VMF-531, however, were overhead nightly and were controlled by either the fighter command or by the fighter directors on ships of the task forces in the area. VMF-531 was the first Marine night-fighter squadron and was commanded by Lieutenant Colonel Frank Schwable, one of the earliest Marine night-fighter pioneers. The squadron was equipped with Lockheed PV-1 *Venturas*. They were hardly suitable for the task but, until the later night versions of the F4U and F6F became available, they filled the breach.

The Bougainville operation was resisted by the Japanese with air attacks, day and night; by surface strikes against the amphibious force; and by reinforcement of the defenses around the perimeter. When operations began from Torokina Point, the doom of Rabaul was at hand. Large fighter sweeps began in mid-December which were staged through Torokina to top off the fuel tanks, rebrief the various flight leaders and coordinate launch, rendezvous and departure. These sweeps were typically comprised of over 100 fighters and, at first, included P-40s, F4Fs, F4Us and P-38s. Results were usually about eight to 10 Japanese shot down for each allied

loss. The fighter sweeps were later reduced in size to be more manageable and, between December 17 and January 1, a total of 147 Japanese were reportedly destroyed over Rabaul by this tactic. There was no letup in the strikes on Rabaul and its complex of fields. However, it was a matter of bypass again, once the SBDs and TBFs began operating from the Piva strips.

Central Pacific Operations

Even before the demise of Rabaul was imminent, a major push through the central Pacific began on November 20, 1943, with the assault on Tarawa in the Gilbert Islands. This had a significant effect on the relationship between Marine Aviation and Marine ground forces. The Marine divisions were, of course, the spearhead of the amphibious

assaults but, in the bypassing strategy in the central Pacific, the distances were so much greater that there was no way that shore-based Marine Aviation could provide what it did in the Solomons.

While Marine Aviation was equipped with carrier-suitable aircraft, both it and the Navy were caught in a bind, the Marine Corps with respect to carrier training and the Navy regarding availability of ships for the Marine flyers. The net result was that Marine Aviation was relegated to the backwaters of the war, almost entirely from the reduction of Rabaul in early 1944 until the Philippines and Okinawa in 1944 and 1945. There wasn't another chain of islands like the Solomons in all the right places in the central Pacific, or a division of carriers that could take Marine squadrons into the many amphibious assaults that marked the central Pacific route to Japan. Even so, several MAGs were displaced

The PBJ (B-25) provided the Marines with their heaviest bomber. Its multiple forward-firing guns had twice the fire power of a fighter aircraft.



forward from the Solomons and from Hawaiian areas, notably to Roi, Engebi and Majuro in the Marshalls, and later to Peleliu, Tinian and Guam.

In late July 1944, General Vandegrift made an extensive inspection trip to the Pacific. On his return through Pearl Harbor, conferences were held with Admirals Nimitz, Tower and Sherman; General Rowell, Commander, Marine Air Wings, Pacific; Brigadier General Thomas, Director Plans and Policies; and Brigadier General Harris, Director of Marine Aviation. The decisions reached brought significant changes in the employment of Marine Aviation for the balance of the war. There was a revalidation of the primary role of Marine Aviation as the support of Marine ground forces, with a recommendation that a division of six *Commencement Bay*-class escort carriers be manned with Marine Aviation squadrons for the purpose. The

six carrier groups would be trained at MCAS Santa Barbara, Calif. Each group would be composed of one VMF squadron with 18 planes and one Marine torpedo-bomber (VMTB) squadron with 12 planes, under a Marine Air Support Group known as Marine Carrier Groups, Aircraft, Fleet Marine Force, Pacific.

By the time the units were assembled, trained and qualified aboard their ships, the war was drawing to its end. The first of the Marine escort carriers (CVEs) to deploy was *Block Island*, which arrived off Okinawa on May 10, 1945. In addition to attacks on Japanese installations in the Okinawa area, she also supported the Marine divisions on the island. She was joined by the *Gilbert Islands* on June 1, and both participated in strikes in the Okinawa area and in the Balikpapan invasion. Two more Marine CVEs came out before the end, *Cape Gloucester* and *Vella Gulf*. All four Marine CVEs

participated in various aspects of the wind-down of the war, *Block Island* and *Gilbert Islands* taking part in the surrender of Formosa and the evacuation of approximately 1,000 allied POWs who had been imprisoned there.

The Philippines

During the Leyte operations in the fall of 1944, the kamikaze threat became a serious problem for our carrier task forces. To deal with it, faster climbing fighters were needed with greater top speed in order to reach and shoot down the suicide planes before they could reach their targets. The *Corsair*, which was not then operating in the fleet, had these capabilities and became the solution. Ten VMF squadrons were immediately assigned to carrier duty with Task Forces 38 and 58, two squadrons aboard each of five fast carriers of the *Essex* class. Between January and June 1945, the program operated and helped solve the problem. Since many pilots had no previous carrier experience, the operational accident toll was a little heavy at first. However, all units soon settled down and the only difference was in the uniforms being worn in the ward room. It was an admirable example of the close relationship which exists between Naval and Marine Aviation in training, equipment and operational understanding.

As events began to crowd into each week of the fall of 1944, the two gigantic pushes westward toward the Japanese home islands began to come together. With Peleliu and Ulithi as major air and fleet bases in the southwest Pacific, decisions previously made to also take the Philippines route were being carried out. MAG-12 arrived in early December at Tacloban, and MAG-14 in early January at Guiuan on neighboring Samar. Later, as the landings moved to Mindoro and then to Luzon at Lingayen Gulf, one of the most interesting involvements of Marine Aviation in the Pacific war began to unfold. On Bougainville, now one of the backwaters of the war, Major General Mitchell, ComAirNorSols, and commanding the 1st Marine Air Wing, had his Chief of Staff, Colonel Jerry Jerome, set up a close air support school with two MAGs, a total of seven SBD squadrons. The school was under the charge of the operations officer, Lieutenant Colonel Keith McCutcheon. A formal curriculum was drawn up, including a multilecture course for all pilots, communications technicians, and officers of the 37th Army Division, also stationed at Bougainville and scheduled for deployment to the Philippines. The program was an unqualified success. Once established at Dagupan near the



foot of Lingayen Gulf, Jerome's command was designated MAGS-DAGUPAN and there they operated for the next three months. Their mission was to keep a nine-plane air alert cover over the 1st Cavalry Division on its dash to Manila, ordered by MacArthur, to free allied prisoners at Santo Tomas prison. In 66 hours, the 1st Cavalry was in Manila with its flank protected all the way by Jerome's MAGSDAGUPAN.

Okinawa

In April 1945, the long struggle on Okinawa, which would bring the war to an end, began with the largest amphibious operation of the war. The operation reunited Marine Aviation with the Marine ground forces on a scale heretofore unknown.

For Marine Corps Aviation, as for all participating units, the Okinawa operation was the culmination of all that had been learned in the Pacific war. Here, knocking on the door of the enemy homeland, after four long years, was the final test.

Planning for the operation separated strategic and tactical aviation. Strategic air fell to the Army Air Forces (AAF) with the 20th Air Force. The 10th Army's Tactical Air Force (TAF) was commanded by Major General Mulcahy with Brigadier General Bill Wallace as his Air Defense Commander. Bearing in mind that the TAF could not function until the command had moved ashore and the amphibious phase of the operation was ended, tactical air during the afloat phase came from a task unit of the Amphibious Force Commander who headed 18 escort carriers of what was known as carrier-based tactical aviation. The kamikaze problem delayed the shift of command ashore until May 17, after the landings were initiated on April 1. In the TAF organization, the Air Defense Command alone, by the end of June, had a total of 15 Marine fighter squadrons and 10 AAF fighter squadrons. In its Bomber Command, there were 16 bomber squadrons by mid-July. When the radar warning units', reporting and communications network units are added in, the size and scope of the TAF is evident.

There were three Landing Force Air Support Control Units (LFASCU) under Colonel Vernon Megee which were outside the command chain of the TF, and reported to Air Support Control Units, PhibPac. This was complicated by the inability to shift control ashore earlier than May 17, but generally worked well in processing, evaluating and assigning air support aircraft through the LFASCU's ashore. In conjunction with the latter, there were two VMTB squadrons assigned to the TAF, originally

for antisubmarine patrol. However, this function was taken over by the patrol squadrons of the Navy and the two TBF squadrons were used for close air support, supply drops to troop units, and other special troop support missions for which they were well-suited. As could be expected, there were some problems throughout the operation but, generally, air support was handled, evaluated, processed and delivered by shore-based, CVE-based and fast CV-based aircraft more quickly and smoothly than in any other operation of the war.

Four Marine observation (VMO) squadrons operated at Okinawa, twice as many as in any other operation of the war. They not only spotted for the artillery, but also flew message pickups and drops, laid wire, transported personnel and performed general utility functions. They also performed superbly in the evacuation of wounded with planes modified to carry stretchers.

Marine Aviation had about one-tenth of its total personnel strength participating in the Okinawa operation, or about 1,575 officers and 10,800 enlisted personnel. The Marine total plane commitment to the operation was around 700. Altogether, the 17 Marine squadrons (two VMTBs) shot down 506 Japanese aircraft during the campaign.

There was no way the end of the war could be announced to the entire island simultaneously but, as the word quickly spread ashore and to ships anchored close in, there was no need. Every weapon that could be fired was cut loose and, against the night sky, rivaled any display put on by AA at the height of the operation. It signaled to all that at last Japan had capitulated. It took a little time to restore order and control, and realize that the long struggle had come to an end, but then things settled down rapidly.

The Occupation of Japan and Demobilization

For the occupation, two MAGs went to Japan and several units were assigned to China, with the rest eventually sent home. The drop in strength of the Marine Corps and Marine Aviation began as abruptly as it had increased at Pearl Harbor — almost immediately. However, a few overall statistics are in order before closing the book on WW II. There were 38 Marine squadrons of all types in combat against the Japanese. They shot down a total of 2,354 Japanese aircraft. Members of Marine Aviation were awarded a total of 11 Medals of Honor, and units of Marine Aviation were awarded 78 Presidential Unit Citations, 52 Navy Unit Citations and one Distinguished Unit Citation (Army).

Marine Aviation assignments during the occupation period after the war were largely confined to Japan and mainland China. MAG-31 was established at the Yokosuka naval base airfield at Oppama, five days after the formal surrender aboard USS *Missouri*. The mission of MAG-31 was surveillance and reconnaissance of the Tokyo Bay area, and it was a key air unit of the Japanese occupation until July 1946, when it returned to the U.S.

MAG-22 flew into the Omura airfield on Kyushu from Okinawa, the entire logistic move being made by airlift. The group then moved to the U.S. in early December 1945. MAG-22 had been formed on Midway in the spring of 1942, and it saw home for the first time that December.

Headquarters of the 2nd Marine Air Wing, with MAGs 14 and 33, remained at Okinawa until February 1946, when they returned to the continental U.S. Marine air units in the occupation of China



The use of helicopters in combat was pioneered by Marine Corps HRS-1s in Korea.

consisted of the 1st Marine Air Wing and its attached groups, MAGs 12, 24, 25 and 32. Their mission was primarily to fly show-of-strength patrols, and provide reliable air transport and logistic services to all Marine units in the occupation. MAGs 12 and 32 were transferred back to Marine Air West in California in the spring of 1946. Remaining units were gradually reduced, the last element, Air Fleet Marine Force WestPac, in January 1949.

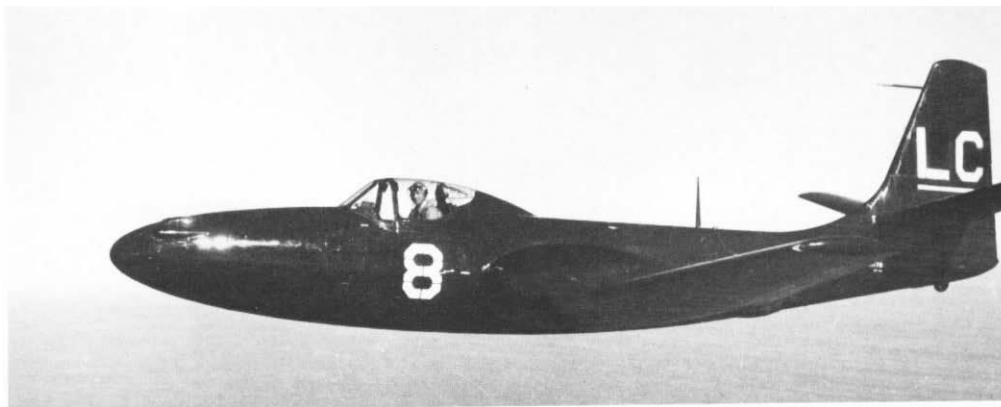
In the 10 months from V-J Day to July 1, 1946, Marine Aviation went from 103 fighter and bomber squadrons to only 27, and in the next year the total dropped to 21. This level was held until June 30, 1950, when squadron strength dropped to 16, only three more squadrons than the total number in Marine Aviation on December 7, 1941. The Marine Corps was not alone in this seeming rush backward to a state of unpreparedness.

III. Post-WW II Operations

The period following the end of WW II brought a cascade of technological advances, unprecedented in both volume and application to almost all fields of endeavor. For aviation in general, the advent of the jet age opened new horizons in transportation and worldwide communication, but for military aviation it was a new ball game. An era of range extension, compression of speed/time factors, routine all-weather operations, and greatly improved weapons delivery accuracy.

The major problems that dominated the period following V-J Day, from the Navy's and Marine Corps' viewpoints, was the effect of the atom bomb on future amphibious operations. For the planners and architects of tactics, the problem boiled down to devising some means of rapid concentration of troops from greatly increased dispersal distances that went with fleet cruising dispositions in the atomic age. It had to be a swift concentration in order to gain the relative safety of close contact with defending forces in minimum time, to lessen the likelihood of enemy atomic attack. The most promising design for a vehicle which might accomplish this turned out to be that of rotary-wing aircraft. The operational concepts were explored by special boards and study groups at Quantico, while the Division of Marine Aviation was investigating every rotary-wing aircraft idea that industry was trying to put into flying form. A developmental helicopter squadron, HMX-1, was formed at Quantico, and much in the same way that the development of amphibious landing craft was pursued in the thirties, each idea was given consideration and tested.

VMA-121 introduced Marine Corps ADs to Korean combat. The aircraft were able to carry heavier loads than the B-17s of WW II.



Jet fighter squadrons became a part of Marine Corps Aviation with the introduction of the McDonnell FH-1 Phantom.

Progress was slow because the state of the art was in its infancy but, by the early fifties, some realistic capabilities were in hand.

The first major surprise of the post-WW II years came when, in late June 1950, the United States responded in crisis fashion to the North Korean invasion of the new Republic of South Korea (RoK), just four years and nine months after V-J Day.

IV. Korean War

On June 25, the North Koreans attacked with nine well-equipped infantry divisions, spearheaded by one armored division equipped with Soviet-built T-34 tanks. The RoK forces were no match for the invaders. Seoul fell on June 28, and its near collapse was faced by the U.S. and the United Nations (UN) in the first week of the war.

The United States responded to the invasion of South Korea both independently and through strong support and leadership in a UN resolution condemning the breaking of world peace by the North Koreans. President Truman

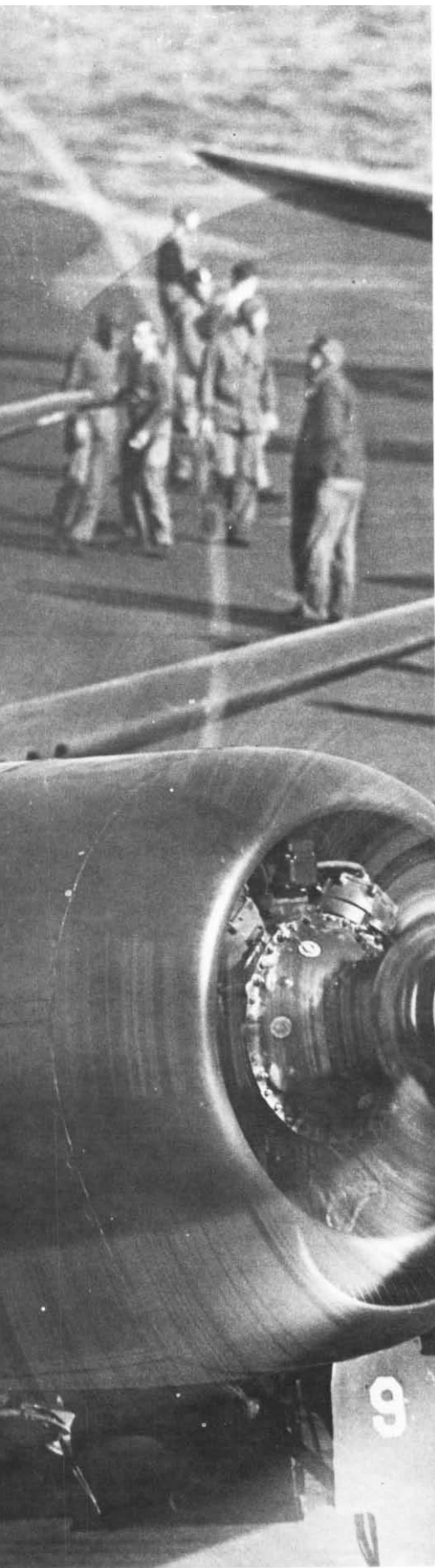
gave General MacArthur the go-ahead to send Army units into Korea from Japan and to take other actions in support of the shattered RoK forces. In addition to the Army forces, a naval blockade of the entire Korean coast was ordered, and Air Force units based in Japan were authorized to bomb specific targets in North Korea.

In response to urgent requests for U.S. reinforcements, the First Provisional Marine Brigade was activated on July 7. It was an air-ground team composed mainly of the Fifth Marine Regiment and MAG-33, both based on the West Coast. The time and space factors in the activation and deployment of the brigade were extraordinary. Normally, after the cutbacks and reductions following WW II, the division-wing teams on both coasts would have been hard pressed to deploy one reinforced brigade of regiment-group size in 30 days, let alone the seven days required in this case.

At departure, the strength of the brigade was 6,534. MAG-33 totaled 192 officers and 1,358 enlisted men, and was composed mostly of VMFs 214 and 323, night-fighter squadron VMF(N)-513 and



Still going strong, the F4U was the primary fighter of the Marine Corps in Korea, both aboard ship and ashore.



VMO-6. An important component of VMO-6 was a detachment of four HO3S-1 Sikorsky helicopters, hurriedly assigned and moved to El Toro from HMX-1 at Quantico. Aircraft strength at deployment added up to 60 F4Us, eight OYs and the four HO3S-1s. The original plan to hold the brigade in Japan temporarily was abandoned. This was a result of the deteriorating position of the UN command in Korea which, by the fourth week of the war, had drawn into a perimeter-type defense of the port of Pusan at the southern tip of the peninsula. MAG-33 shipping had been directed to Kobe and debarkation began there on July 31. The fighter squadrons were flown off the CVE *Badoeng Strait* to Itami near Osaka, where they were checked for combat by the ground crews, and hastily transported overland from Kobe. With one refresher hop at Itami, VMF-214 landed aboard the CVE *Sicily* for operations on August 3 and, on August 5, VMF-323 returned to *Badoeng Strait* for the same purpose.

VMF(N)-513 was assigned to the 5th Air Force (5th AF) for control and began shore-based operations from Itazuke airfield on the southern island of Kyushu. Its mission was to fly night heckler operations over the brigade, while the two carrier-based units provided close air support. On arrival at Kobe, a tank landing ship (LST) was waiting to reembark Marine Tactical Air Control Squadron (MTACS) Two and the ground echelon of VMO-6 for transport to Pusan. The aircraft of VMO-6 were readied at Kobe and Itami, and ferried to Pusan by air. Thus the air-ground integrity of the brigade was intact as it entered its first combat less than 30 days after activation, a truly remarkable achievement.

At the time of the commitment to action of the brigade, the UN defense had contracted to a perimeter around the southernmost port of Pusan. It was vital that the perimeter be reduced no further, since the port was the logistic link to a viable base position in support of a UN recovery on the peninsula. To bring this to reality, the Marines were accorded the honor of restoring the confidence of UN troops by destroying the myth that the North Koreans were somehow invincible. Like the deployments aboard the fast carriers in WW II to help thwart the kamikaze threat, the basing of VMFs 214 and 323 aboard *Sicily* and *Badoeng Strait* again showed the wisdom of the long-standing commonality policies between Naval and Marine Aviation.

From *Sicily* in the form of eight *Corsairs*, came the first Marine offensive action of the war. Eight VMF-214 F4Us took off at 1630 on August 3, 1950. They carried incendiary bombs and rockets and made numerous strafing runs. VMF-323 joined the fray from *Badoeng Strait*

on August 6. Because the carriers were so close to the front lines of the perimeter, the strikes could reach their targets in a matter of minutes at almost any point where support was requested. MAG-33 aircraft were constantly orbiting on station over the front line as the ground forces advanced, and communications within the air-ground team were steady, from the tactical air control parties (TACP) with the battalions all the way back to the brigade headquarters. The air support system, controlled by the active presence of Marine Tactical Air Control Squadron Two and VMO-6 at brigade headquarters from August 6 on, was a complete success.

The 5th AF exercised overall control of tactical air operations in Korea but Marine Aviation units, as components of an integrated Fleet Marine Force, operated in support of the brigade as their highest priority, and in support of other UN units as a lower priority. The brigade control organization consisted of three battalion tactical air control parties and one regimental TACP, each consisting of one aviation officer, an experienced and fully-qualified pilot, and six enlisted technicians. In addition, there were the facilities and personnel of MTACS-2 at brigade headquarters, as well as the Brigade Air Section of the staff. There was also the Brigade Observation Section, consisting of the tactical air observer, three gunnery observers, and the light observation and rotary-wing aircraft of VMO-6.

The foregoing gives an abbreviated description of the brigade air support system which operated very effectively through some of the most rugged fighting of the Korean War. In addition, brigade air in the case of VMO-6 established so many "firsts" with their helicopters during the period that it was obvious that a major tactical innovation was in the making. An adjacent Army infantry regiment summed up the air component performance in the perimeter: "The Marines on our left were a sight to behold. Not only was their equipment superior or equal to ours, but they had squadrons of air in direct support. They used it like artillery. It was 'Hey, Joe, this is Smitty. Knock the left off that ridge in front of Item Company.' They had it day and night. It came off nearby carriers and not from Japan with only 15 minutes of fuel to accomplish the mission."

Gen. MacArthur asked the Joint Chiefs of Staff for the 1st Marine Division, with appropriate air in the form of the 1st Marine Aircraft Wing. General Lemuel C. Shepherd knew full well that the understrength division could hardly deploy the reinforced Fifth Marines to the brigade, let alone field the balance of the division, but he had an abiding faith in the

loyalty and performance potential of the Marine Corps Reserve. The reserve, ground and air, came through and in less than 60 days after receiving the initial orders, both the wing and division made the landing at Inchon on September 15.

With the strengths of the division and the wing being only at 7,779 and 3,733, respectively, there was no way war-strength manning levels could be reached and maintained without drawing heavily on both the ground and aviation organized reserve contingents. Division war strength ran about 25,000 and the wing about 9,500. On July 19, 1950, mobilization of the Marine Corps Reserve was authorized. The first reservists arrived at Camp Pendleton and El Toro on July 31, and by utilizing some units and personnel of the 2nd Division and 2nd Wing on the East Coast, the 1st MarDiv and the 1st MAW were able to realize their scheduled mount-out dates of

August 10-15. Because many reservists were combat veterans of WW II, only about 10 percent required any form of basic indoctrination and training. The fact that personnel were well-trained, experienced and seasoned was a key factor, particularly in aviation, since the total time required from commencement of pilot training to operational status is a matter of some two years. The Marine Corps Reserve made the Marine Corps force in readiness a reality of the Korean War.

The sky over the objective area was to be divided between the air units of Joint Task Force Seven of the Navy, and those of X Corps. The command was designated by the 1st MAW as Tactical Air Command, X Corps (TAC X Corps) with principal units VMFS 212 and 312, plus VMF(N)s 513 and 542. The command of X Corps was given to Gen. Cushman who had MAG-33 which was

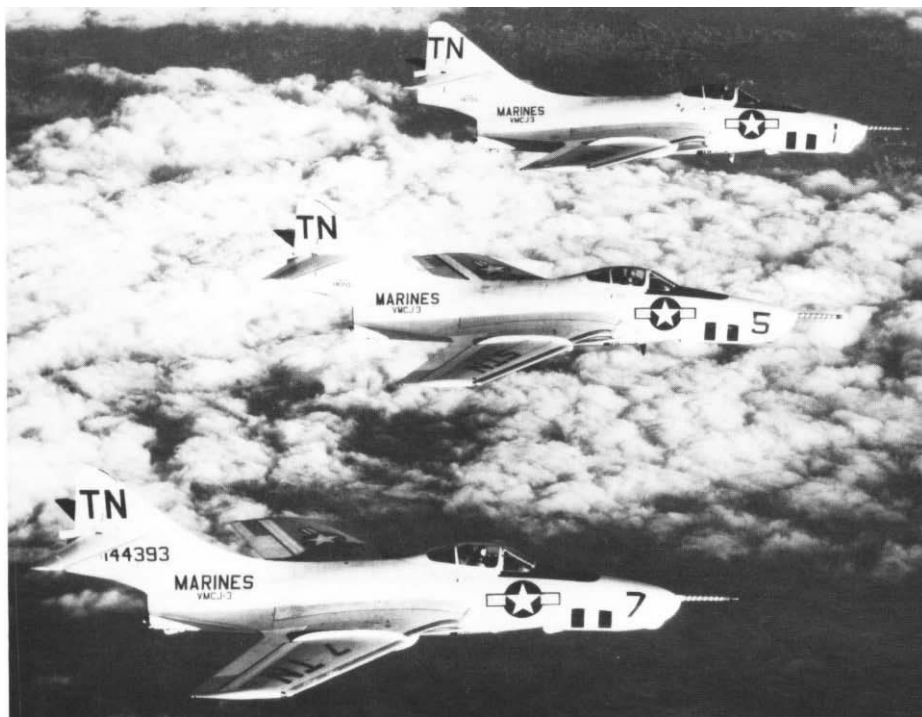
under Colonel Frank Dailey. Close support for the landing was assigned to the task group, including the two small carriers *Sicily* and *Badoeng Strait*, still operating with VMFS 214 and 323.

The 1st MAW designated MTACS-2, which had controlled air support for the brigade, to function in that capacity for the landing and, upon establishment of X Corps ashore, to then continue to patrol for TAC X Corps.

A primary and crucial objective in the Inchon landing was Wolmi-do Island. Preparation of Wolmi-do began on September 10, with attacks by VMFs 214 and 323 with bombs, rockets and napalm. The *Corsairs* literally blackened the entire island with napalm to the extent that, during the second day of attacks, the whole island appeared to be ablaze. During the afternoon of September 15, VMFs 214 and 323, plus three squadrons of Navy *Skyriders*, alternately blasted Inchon, integrating their strikes with naval gunfire from 1430 right up to H-hour. The successful outcome was indeed welcome.

During the advance from the beachhead, which commenced the day following the landing, the air support control system functioned precisely as previously described. One of the key objectives of the assault phase and the advance toward Seoul was the capture of Kimpo airfield. As the objective areas widened and expanded with the advance, however, it was essential to bring in more shore-based aviation to meet the demand quickly on a constantly broadening front. The field was captured and declared secure in the mid-morning of September 18. The first plane to land at Kimpo was an HO3S of VMO-6 which brought Gen. Shepherd and Colonel Krulak.

Gen. Cushman established his headquarters at Kimpo on September 19, and was quickly joined by MTACS-2, Marine Ground Control Intercept Squadron (MGCIS) 1 and VMO-6. The first fighter squadron of MAG-33 to check in was VMF(N)-542 with five F7Fs,



VMCJ-3, with its Grumman F9F-8Ps, was one of three Marine Corps squadrons to provide photoreconnaissance support.

Beech SNBs provided small transport and multiengine training throughout WW II and into the 1970s.



landing late in the afternoon of the 19th. *Corsairs* of VMFs 212 and 312 landed shortly after 542 and also went into action on the 20th. During the transition of the squadrons assigned to MAG-33 from MAG-12 in Japan, the operational burden of Marine air support was handled entirely by the two CVE-based *Corsair* squadrons, VMFs 214 and 323, administratively assigned to MAG-12. Also supporting the move forward of the division-wing team into the Korean peninsula was VMF(N)-513, still operating from Itazuke AFB in Japan. Control of air support had passed from the Amphibious Force Commander to MTACS-2 ashore on D-plus-2, when the Landing Force Commander (1st MarDiv) declared he was ready to assume control.

With Kimp'o in hand, the next major objective became the forced crossing of the Han and the taking of the essential key terrain from which to launch the assault on Seoul properly. MAGs 12 and 33 made their contributions to these endeavors by rapidly increasing their strengths and capabilities at Kimp'o, and through strikes against redeployment and reinforcing moves by the communists attempting to improve the defenses of the city.

From September 19 on, both MAGs 12 and 33 flew "maximum effort" schedules in close support of both the 1st and the 5th Marines in their assaults toward the city. Typical during this period was a flight of five *Corsairs* led by Lieutenant Colonel Lischeid of VMF-214 which effectively broke up a threatened counterattack on Hill 105-S, held by the 1st Battalion, 5th Marines. On the 24th, on the east slopes of Hill 56, VMF-323 dropped 500-pound bombs only 100 yards in front of the attacking Marines, F Company, 2nd Battalion, 5th Marines, enabling them to seize the high ground of their objective.

The supply lines of the North Korean invading forces had been cut totally and the Inchon landing had halted the North Korean army.

During the period of the Inchon-Seoul operation, September 15-October 7, the 1st MarDiv suffered 2,450 battle casualties. The division took 6,492 North Korean prisoners and estimates of total enemy casualties added up to 13,666, most of whom were counted dead on the battlefield. These figures represent a ratio of better than eight to one, a commendable performance considering the speed with which the air-ground team was put together and deployed. It says much for the force-in-readiness concept of the Marine Corps and for the wisdom of maintaining a viable, strong and loyal Marine Corps Reserve, ground and air.

When it became clear that the landing had achieved a total rout of the North

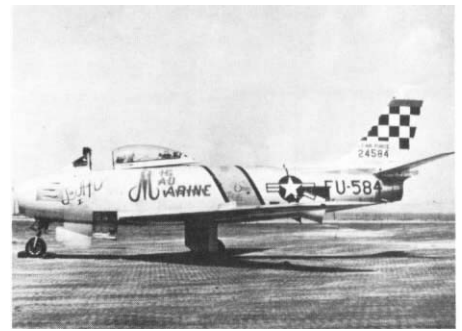
Koreans, Commander in Chief, Far East (CINCFE) made plans for the follow-up. It was decided that the UN command could conduct pursuit operations beyond the 38th parallel into North Korea but the authority for Gen. MacArthur to deploy his forces was burdened with several limitations. Briefly, no force other than those of the Republic of Korea could enter if there was a clear indication of Soviet or Chinese entry. Also, there could be no attack of any type against any portion of Chinese or Soviet territory. Further, only RoK forces would be deployed in those provinces of North Korea bordering on the Soviet Union or Manchuria.

Generally, the plan was for the 8th Army to advance along the axis; the RoK II Corps in the center and the RoK I Corps up the East Coast direct to Wonsan. The 1st Marine Division would make an assault landing at Wonsan and the 7th Army Division would follow ashore in an administrative landing. After establishment ashore at Wonsan, the X Corps would then advance west to join up with 8th Army. The entire force would then advance north to two phase lines; only RoK forces would advance beyond the second phase line, in keeping with the restrictions mentioned above. The 8th Army would cross the parallel on October 15 and the Wonsan landing was set for a D-day of October 20.

The discovery that the harbor and approaches to Wonsan were sown with rather sophisticated Russian mines of all kinds made it impossible for any landing to be made until the harbor was safely swept. The delays entailed in the sweeping, combined with the early taking of Wonsan by the RoK I Corps, reversed the normal order in amphibious operations. When the assault elements of the division finally landed at Wonsan, they were welcomed ashore by the already well-established Marine Aviation units.

On October 13, General Field Harris, commanding the 1st MAW and TAC X Corps, flew into Wonsan and decided to begin operations there immediately. VMF-312 flew in from Kimp'o on the 14th, and wing transports brought in 210 personnel of the headquarters and VMF(N)-513 the same day. Two LSTs sailed from Kobe with MAG-12 equipment and personnel, while some bombs and rockets were flown in on the planes of VMF(N)-513. On the 16th, VMFs 214 and 323, still on board *Sicily* and *Badoeng Strait*, began operations at Wonsan, covering the minesweeping activities until October 27.

With the change from an assault to an administrative landing at Wonsan, the 1st MAW was placed under the control of Far East Air Force, with delegation of control to the 5th AF north of the 38th parallel. This required the daily



An Air Force F-86 flown by John Glenn while on exchange duty in Korea.

operations schedule to be submitted to 5th AF at Seoul by 1800 of the previous day. The distance involved and relatively poor communications made it extremely difficult to get clearance back in time. This was resolved between Gen. Harris and General Partridge, Commanding General 5th AF, with permission for the former to plan and execute missions for X Corps in northeast Korea without waiting for 5th AF clearance.

With the major changes in strategy that accompanied the collapse of the North Koreans, and the rapid advances of 8th Army and the two RoK Army Corps to the north, CINCFE issued some new directions which affected X Corps and the Marines directly. One aspect was an order for the 1st MarDiv to "advance rapidly in zone to the Korean northern border."

Chosin Reservoir

The 1st MarDiv command post was moved to Hungnam on November 4, with the 7th and 5th Marines operating north, closing the "stretch" to less than 60 miles. Wonsan, from the viewpoint of Marine Aviation, was looking like a bypassed Japanese base from WW II. The concentration of the division north of Hungnam, in its march to the Yalu River, made the airfield at Yonpo increasingly attractive to the 1st MAW because it was in the center of the Hungnam-Hamhung area. This meant that response times for close air support would be considerably reduced. On November 6, MAG-33 was ordered to Yonpo from Japan, and was operating there by November 10, in time to receive VMF-212 from Wonsan. On the 15th, VMF-214 was ordered ashore from *Sicily* and set up at Wonsan with MAG-12 supporting the squadron as best it could.

By November 27, the 1st MarDiv was concentrated in the vicinity of the Chosin Reservoir, with the command post at Hagaru, the 7th and 5th Marines at Yudamni, and the 1st Marines along the main supply route with a battalion each at Chinhung-ni, Koto-ri and Hagaru.

On the morning of the 27th, the 1st MarDiv began its attack from Yudam-ni on schedule, but the lead regiment had only advanced about 2,000 yards when it was stopped by stiff resistance. That night, the Chinese communist forces attacked in great strength at all Marine positions from Yudam-ni to Koto-ri. Intelligence reports showed that opposing the Marines and associated troops in the Chosin Reservoir area was the Chinese 9th Army Group, 3rd Field Army. This force, added to the five divisions already identified by the 1st MarDiv, totaled more than 100,000 seasoned Chinese infantry troops. With the disposition of the 1st MarDiv north of Hungnam and Hamhung, plus attacked units of Royal Marines and assorted Army units totaling only 20,500, the balance in the two orders of battle favored the Chinese by better than five to one.

The situation had changed so radically and quickly that, on November 28, Gen. MacArthur called Generals Walker and Almond to Tokyo for a lengthy conference. The result of these deliberations was a change of strategy to abandon the previous plan for North Korea and pull back instead to a more defensible line to the south. General Smith had already decided to start moving without any further delay, and ordered the 5th and 7th Marines to move back to Hagaru from Yudam-ni, the first leg of what would be a 68-mile fight through more than 100,000 fanatical enemy troops.

The 1st MAW command post and attached headquarters and service units, plus five VMFs had moved to Yonpo from Wonsan and Japan by late November. The sixth squadron, VMF-323, was still operating from *Badoeng Strait*. Rounding out the 1st MarDiv combat line-up was VMO-6 with its OYs and HO3S helicopters, operating from Yonpo mainly, but also from wherever else required. The air part of the air-ground team was ready to do its job. The manner in which it performed its task compares with what Marine Aviation did at Guadalcanal.

From the time the decision was made to fight south to the sea, 5th AF had given 1st MAW the sole mission of supporting the 1st MarDiv and the rest of X Corps. Task Force (TF) 77 aircraft provided backup for additional close support while Navy and 5th AF tactical squadrons attacked troop concentrations and interdicted approach routes all along the withdrawal fronts of 8th Army and X Corps.

When reviewing the fighting withdrawal of the Marine air-ground team from the Chosin Reservoir against terrible odds, and assessing the part

Marine Aviation played in the operation, it is important to remember the tactical air control party (TACP) structure of the Marine air control system. Every strike against enemy positions along the route, wherever the column was held up or pinned down, was under the direct control of an experienced Marine pilot on the ground in the column, known to the pilots in the air delivering the attack. Other methods have been tried repeatedly, but there is no substitute for the TACP.

From the start of the 68-mile battle to the sea on December 1, to its completion at Hungnam on December 12, so much happened on a daily basis that only shelves of books could tell the story in detail. The same air support principles in almost every detail were followed in support of the division on its fight up to Hagaru and Yudam-ni, as were applied in supporting its fight back down to the sea.

The air support plan for the operation called for a flight over the key movement of the day at first light. This initial would be assigned to the forward air controller (FAC) of the unit most likely to need close air support first. As that flight was called in, another flight would be assigned to relieve it on station. This meant that response times from request to delivery on target could be reduced to the minimum. If the aircraft on station did not eliminate that target, additional strength would be called in, either from Yonpo or from TF-77. From time to time, any suitable aircraft in the area would be diverted from its assigned mission and called in.

Each night, the column would be defended through unit assignments to key perimeters of defense. During daylight, when *Corsairs* were on station, the Chinese could not mass their troops to mount such attacks because, when they tried, they were immediately subjected to devastating air strikes with napalm, bombs, rockets and overwhelming 20mm strafing. Not one enemy mass attack was delivered against the column during daylight hours.

The first leg of the fight south was from Yudam-ni to Hagaru, a movement which brought the 5th and 7th Marines together with elements of the 1st Marines, 1st MarDiv headquarters and the division command post. It was essential that Hagaru be held because it would give the division its first chance to evacuate the seriously wounded by air. During the period from the first airstrip landing on December 1, to December 6, the Combat

Cargo Command (CCC) C-47s, augmented by every Marine R4D in the area, flew out a total of 4,312 wounded, including 3,150 Marines, 1,137 Army personnel and 25 Royal Marines.

The Yudam-ni to Hagaru leg was completed by the afternoon of December 4. With most of the heavy action taking place on the 1st and 2nd, 1stMAW aircraft flew well over 100 close support sorties both days, in support of the division and the three Army battalions of the 7th Division which were heavily hit east of the reservoir trying to withdraw to Hagaru. On December 4 and 5, 1stMAW aircraft continued the march with almost 300 sorties against enemy positions, vehicles, and troop concentrations throughout the reservoir area. But on December 6, they resumed their primary role over the division as the second leg, Hagaru to Koto-ri, began.

Air planning for the second leg drew heavily on the experience gained during the move from Yudam-ni. The FACs were again spotted along the column and with each flanking battalion, and were augmented with two airborne TACs who flew their *Corsairs* ahead and to each side of the advancing column. A four-engined R5D (C-54) transport, especially configured to carry a complete tactical air direction center (TADC), controlled all support aircraft as they reported on station, and assigned them to the various FACs or TACs, as appropriate for the missions requested. The system worked smoothly and made it possible for the column to keep moving on the road most of the time, even while the support aircraft were eliminating a hot spot.



Napalm bombs and high-velocity aircraft rockets awaiting VMF-214.

By evening of December 7, the division rear guard was inside the perimeter of the 2nd Battalion, 1st Marines at Koto-ri. For the two days, 1st MAW aircraft flew a total of 240 sorties in support of the X Corps withdrawal, with 60 percent in support of the division. Most of the remainder was flown in support of other units in the column. In addition, X Corps was supported by 245 sorties from TF-77 carriers and 83 from the 5th AF. The Navy sorties were almost entirely close support, and the Air Force mostly supply drops. With just one more leg to go, the move was almost completed, but the third leg, Koto-ri to Chinhung-ni, was tough to contemplate. It involved the hazardous passage of a precipitous defile called Funchilin Pass, plus a blown bridge just three miles from Koto-ri that had to be made passable, the test drop of a bridge section at Yonpo (as an experiment), revision of parachutes and rigging, and the successful drops of the necessary material at Koto-ri.

The air and ground plans for the descent to Chinhung-ni involved the same coverage and column movement coordination as had been so successful on the first two legs. The night of December 7 brought a raging blizzard to the area, reducing visibility almost to zero and denying any air operations on most of the 8th. As a result, little progress was made from Koto-ri and installation of the bridge sections was delayed.

The night of the 8th saw the end of the weather problem, and the clear skies and good visibility promised a full day for the 9th. From the break of day, there was complete air coverage over the main

supply route under the direction of the airborne TADC, the TACs and the battalion FACs. The installation of the bridge was covered and, when it was in place, the column began its move down to Chinhung-ni on the plain below. It is interesting to note that the bridge was installed at the base of the penstocks of one of several hydroelectric plants fed by the Reservoir. Eighteen months later, in June 1952, two of these plants were totally destroyed by MAGs 12 and 33 in one attack, Chosin Three by MAG-12 and Chosin Four by MAG-33, the latter in one of the largest mass jet attacks of the war.

The truck movement from Chinhung-ni to Hungnam began early in the morning of December 11. By early afternoon, the last unit cleared the town and the curtain dropped on one of the military classics of all time. The three shore-based fighter squadrons moved to Japan on the 14th and, by the 18th, the last of the 1st MAW equipment was flown out of Yonpo. With the displacement of the 1st MAW, air coverage of the evacuation of Hungnam became the responsibility of the light carriers.

A few summary statistics serve to place in perspective the magnitude of the support 1st MAW rendered to the operation. From October 26 to December 11, 1950, 3,703 sorties in 1,053 missions were controlled by the tactical air control parties of Marine, Army and RoK units. Close air support missions accounted for 599 of the total, with 468 of these going to the 1st MarDiv. The balance of 454 missions was search and attack. On the logistics side, Marine Transport Squadron (VMR) 152, the 1st

MAW transport squadron, averaged a commitment of five R5Ds a day to the Combat Cargo Command during the operation, serving all units across the UN front. With its aircraft not committed to the CCC, from November 1 to the completion of the Hungnam evacuation, 152 planes carried over 5,000,000 pounds of supplies to the front and evacuated over 4,000 casualties.

One other milestone for Marine Aviation was its first jet squadron to see combat when VMF-311, under Lieutenant Colonel Neil McIntyre, operated at Yonpo for the last few days of the breakout movement.

In any historical treatment of this epic fighting withdrawal, it is important to emphasize that there was total control of the air over the entire operation from beginning to end. Without that, not only would the withdrawal have been far more costly, but it might have been impossible.

After the breakout from the Chosin Reservoir area and the evacuation from Hungnam, the Korean War went into a lengthy phase of fierce fighting between the ground forces. There were many moves of both the 1st MarDiv and elements of the 1st MAW. The basic thrust of the wing was to keep its units as close to the zone of action of the division as possible, in order to reduce, to a minimum, the response time to requests for close air support. The Joint Operations Center, manned by the 8th Army and 5th AF, processed all requests

Black Sheep aircraft loaded with variable time-fused bombs prior to a strike in Korea.



for air support, published a daily operations order, approved all emergency requests for air support, and generally controlled all air operations across the entire front.

This was a difficult time for the 1st MAW because whenever a proposal was made for improving wing support of the 1st MarDiv, the attempt ran head-on into the official position that there were 10 or more divisions on the main line of resistance and there was no reason why one should have more air support than the others. From 1951 to mid-1953, there were various agreements between the 1st MAW and 5th AF regarding support of 1st MarDiv. While these were helpful, they never really satisfied the Marine Corps.

The 1st MAW, still tactically composed of MAG-33 at K-3 and K-8 airfields, and MAG-12 newly established at K-6, had more or less settled down to the routine of stabilized warfare. The wing headquarters and Marine Air Control Group were at K-3.

MAG-33 was composed of VMFs 311 and 115, both with F9F *Panthers*, and VMJ-1 equipped with F2H *Banshees* carrying the latest Navy-Marine aerial photographic camera and photo-processing equipment. All were at K-3 with accompanying headquarters and service squadrons. At K-8, on the southwest side of the peninsula, MAG-33 had VMF(N)-513 with F7F-3Ns and F4U-5Ns. In mid-1952, the squadron received F3D *Skyknights* and became the first jet night-fighter unit of the wing, making MAG-33 entirely jet.

MAG-12 was the "prop side of the house" with Marine attack squadrons (VMAs) 212, 312, and 323 equipped with the last of the *Corsairs*, and VMA-121 with AD *Skyraiders*. VMA-312, under the administrative control of MAG-12 and operating for short periods at K-6, maintained the wing leg at sea and was based aboard the escort carrier *Bataan*. The wing was supported on the air transport side by a detachment of VMR-152, plus its own R4Ds. The rear echelon of the wing was at Itami, Japan, where it functioned as a supply base.

While VMO-6 continued its support of the division through 1951-53 with its OYs, OEs and HO3Ss, the big news in helicopters was the arrival of the first transport helicopter squadron, Marine Transport Squadron (HMR) 161, on August 31, 1951. It was attached to the division and administratively supported by the wing in the pattern of VMO-6. Just two weeks later, the squadron executed

the first resupply and casualty evacuation lift in 2.5 hours, moving 19,000 pounds of cargo seven miles to the engaged 2nd Battalion, 1st Marines, and evacuating 74 casualties. It was number one in a long and still growing list of Marine Corps combat lifts. HMR-161 set standards for helicopter operations with troops which are still in active use. The squadron was a leader in night and marginal weather operations of all kinds, and developed many different movements of field equipment in combat.

Another piece of Marine Aviation equipment that was moved into the 1st MarDiv early in 1951 was a radar bombing system that could direct bombing aircraft to their proper release points at night or in bad weather. Designated the MPQ-14, the system was designed to provide close air support around the clock, regardless of the weather. While that

ambitious goal was not attained, the use of the MPQ-14 gear in Korea was a success. It continued to fill the need many years after Korea. The MPQ controller vectored the aircraft to the release point and, at the proper spot, directed release by radio and, in later refinements, automatically. The work that was done with the MPQ gear in Korea established confidence in its use and set procedures in its employment which are still standard practice.

In the spring of 1952, MAG-33 acquired a new and special squadron, VMJ-1. This was a photoreconnaissance unit, equipped with 10 F2H-2P *Banshees* containing the latest Navy-Marine camera configuration that made the aircraft by far the most efficient photorecon system in the entire 5th AF. Totally unarmed, almost all of its missions were flown unescorted at high altitude. But often



Top right, rearmed aircraft being positioned for takeoff at K-3 Korea. Right, the first night jet kill was accomplished with a Douglas F3D Skyknight.

the pilot, in the event of cloud obstruction, descended below the cloud deck to get his target if the area was not too "hot." There was an advantage to unescorted missions: a single *Banshee* at high altitude presented a very low profile to enemy AA radar and radar fighter direction gear. The unescorted missions penetrated all the way up the East Coast to the Soviet border and, at the extreme northeast end of the run, Vladivostok was clearly visible. Other missions took the aircraft the length of the Manchurian border, down the Yalu to the point where the range of the MiG dictated escort.

From November 1951 to July 1953, there was an arrangement between the 5th AF and 1st MAW which provided for a few Marines, after they finished their tours in MAG-33 jets, to experience several weeks of temporary duty with the F-86 squadrons. During

this period, these "visitors" shot down a total of 21 MiG-15 aircraft. At any given time, there was usually only one Marine on duty with each of the two operating F-86 wings. The high scorer and only Marine jet ace of the group was Major John F. Bolt, with six kills, although Major John Glenn, getting three in July 1953, was closing in fast when the cease-fire was announced.

The 1st MAW post-armistice plan, a part of the 5th AF plan, was effective on July 27, 1953. Its basic objective was twofold: to carry out 5th AF responsibilities as assigned, and to maintain a high level of combat readiness in all units.

Because of the uncertain duration of the armistice, it was necessary to deploy additional Fleet Marine Forces to the Far East in order to maintain a posture of amphibious readiness in the area. Late in the summer of 1953, the

3rd MarDiv arrived in Japan accompanied by MAGs 11 and 16. The latter was a helicopter transport group equipped with HRS-2s and based at Hanshin AFB with its two squadrons and service units. MAG-11, comprised of three F9F squadrons, was based at Atsugi, as was VMR-253, an additional transport squadron assigned to the 1st MAW and flying the Fairchild R4Q *Packet*.

V. Technological Development

Both in Korea and Japan, the period was one of intensive training, including landing exercises and joint exercises with the Army and the Air Force, concentrating on bombing and gunnery. One program within the wing was an exchange program between Japan-based and Korean-based squadrons. The objective of the program was to familiarize pilots new to the area with flight conditions in Korea, just in case the cease-fire didn't work out.

In June 1956, the 1st MAW moved its headquarters to NAS Iwakuni, Japan, and control of the wing passed from the 5th AF to Commander in Chief, Pacific Fleet (CinCPac), in Hawaii, thus ending Marine Aviation participation in the Korean police action.

For Marine Aviation, this period between the Korean War and the major involvement of the U.S. in Vietnam in 1965 was characterized mainly by research and development. New aircraft in Marine Aviation reflected the tremendous effects of technological advances during the period leading up to Vietnam.

The types which most advanced Marine Aviation capability during this nine-year period were the jet fighter and attack aircraft, helicopters, and the turboprop transport. It all began in 1947 with the commissioning of HMX-1 at Quantico to develop the use of helicopters, and VMF-122 flying the first jet, the FH-1 *Phantom* at Cherry Point. These were closely followed by VMF-311 at El Toro in 1948, first with TO-1s (F-80Cs), the Lockheed *Shooting Star* for jet indoctrination of experienced pilots, and then late in 1949 operating the F9F *Panther* for normal fighter/attack training. But the aircraft that heralded the rapid advance of technology with the loudest



Marine jet fighters went to sea with the Grumman F9F Panther.

bang, was the F4D-1. This was a short-range, all-weather, high-rate-of-climb (for its time) interceptor, equipped with the Marine Corps' first afterburner. A serviceable and successful carrier fighter, the *Skyray*, came to the Corps in late 1955 and early 1956. It was assigned in rather limited numbers because of its shorter range and because it was rapidly overtaken by additional design advances. The FJ-2 *Fury* came into the inventory at approximately the same time.

With the earlier establishment of the HRS series as the first significant step in building a Marine Corps helicopter transport capability, two additional developments took place in the mid-fifties. The first was a medium helicopter, the HUS series with greatly increased capability. The second was the first design of a heavy helicopter, the HR2S-1. The HUS became the principal vehicle in the rotary-wing lift capability of the Corps, the inventory showing 309 HUSs in the transport squadrons. The HR2S was programmed for a major part of the lift capability but, because of shortfalls in its performance parameters, the overall numbers were cut back. Competitive selection of a new heavy helicopter resulted in a design winner, the CH-46 *Sea Knight* by Boeing-Vertol. This was followed by a series of attempts by the Department of Defense to unify the requirements of all services. However, they were not able to integrate the tri-service requirements into a single vehicle. At this time, Navy competition resulted in a true heavy-lift machine for the Marine Corps, the CH-53 *Sea King* series by Sikorsky.

Following similar developmental procurement, the light observation helicopters, which have not been mentioned previously except for the very early HO3S-1 used in Korea, underwent progressive refinements. Deliveries of the UH-1E, began by 1964. It was a light helicopter by Bell whose basic design had been procured by the Army earlier as the HU-1B, in significant numbers. This made possible the timely replacement of the retiring light helicopters and fixed-wing aircraft then in use by the Marine Corps for observation.

Thus, by the end of this period in 1965, an extraordinary advance in rotary-wing lift had been achieved for the Marine Corps through its efforts with the Navy, in just nine years from redeployment out of Korea.

To ensure that the development of rotary-wing aircraft did not outstrip the design of amphibious ships to carry them and move the troops, the Marine Corps moved into action early. In July



In 1959, VMA-331 was the last Marine Corps AD-equipped squadron to deploy overseas.

1951, General Clifton B. Cates, Commandant of the Marine Corps, stated in a letter to the Chief of Naval Operations:

"Studies and past experience indicate that the most desirable type of assault shipping for such a helicopter-borne force will be ships which can accommodate the necessary embarked troops, the helicopters to land them and the crews to operate and maintain the helicopters. It is becoming increasingly urgent to commence a ship conversion or building program that will parallel the availability of the 36-man helicopter."

This resulted in an active program beginning with the conversion of light carriers to amphibious assault ships (LPHs), and then the development of designs for LPHs from the keel up. The first of the latter, USS *Iwo Jima*, was at sea for trials on September 5, 1961. She was followed by a succession of similar vessels through the sixties, which led to further design developments and improvements.

The transition of attack aircraft to jet propulsion had begun in 1952. Douglas aircraft designed a concept for a new attack machine to perform the types of missions being carried out in the Korean War. The result was the A4D series, an aircraft that developed into the attack stalwart of the Navy and the Marine Corps for all of this period and much of the Vietnam conflict. Various versions of the series were the attack standard aircraft from the mid-fifties on. One of the last versions, the A-4M, was all-weather with the latest systems. It had over twice the gross weight of the original design and carried almost twice the ordnance load.

In late August of 1958, MAG-11 of the 1st MAW, received orders to deploy

immediately from Atsugi, Japan, to Taiwan to augment the air defense of that portion of the 7th Fleet operating in the Formosa Strait. There, a crisis between the Nationalist and Communist Chinese had begun to threaten what peace there was in region. MAG-11 consisted of three combat squadrons, two with F4Ds and one flying FJ-4s. Their principal duties were to fly cover over the night air drop and surface resupply runs to the offshore islands, and augment the air defenses of Taiwan and the 7th Fleet. Although the responsibility for Taiwan air operations was an Air Force function, MAG-11 supplied over 50 percent of both the force on hand and the sorties flown. A cease-fire was declared in October, and MAG-11 returned to Atsugi in early December.

The year 1958 turned out to be a time of deployment when trouble broke out in Lebanon as well. The 2nd Provisional Marine Force landed at Beirut on July 15, 1958, augmented by the reinforced 2nd Battalion, 8th Marines, but it had no Marine Aviation component other than Sub Unit 1 of HMR(L)-262 providing helicopter support. Tactical air support came from the carriers of the 6th Fleet; logistic air support was provided by the Air Force and by four transport squadrons of MAG-35 from Cherry Point, operating through NAS Port Lyautey, Morocco.

On May 27, 1958, one of the finest air weapons ever used by the Navy and Marine Corps had its first flight, the McDonnell Douglas F-4 *Phantom II*. It became operational in late 1960 and early 1961 and, by the end of 1965, 29 Navy and Marine squadrons were flying the *Phantom II*. The primary role of the F-4 was as an interceptor, but it was given the secondary job of



Bell HU-1 helicopters provided assault support.



The Vought F8U-2N was an all-weather fighter.

providing close support and it carried a wide range of external ordnance by the start of Vietnam. This two-man, interceptor-attack aircraft, with its pilot and airborne radar intercept operator and its multiple systems and sub-systems, ushered Marine Aviation into a new and advanced realm of military aviation.

In October 1962, Fleet Marine Force, Atlantic was ordered to assume a posture of increased readiness because of the introduction of nuclear weapons into Cuba by the Soviets. In the ensuing

weeks, nearly all 2nd MarDiv and 2nd MAW units were either deployed to Florida or the Caribbean area, or were aboard ships or the Amphibious Force or carriers of the Atlantic Fleet. While no actual combat took place, the confrontation involved a limited blockade of Cuban waters and continuous high-altitude photoreconnaissance of suspected Cuban missile sites. Much of this photography was accomplished by F8U-2Ps of the 2nd MAW, operating from bases in Florida.

In April 1965, an attempted coup by leftist forces in Santo Domingo threatened the safety of U.S. nationals and the U.S. Embassy requested their evacuation. This was followed by a request for intervention by the existing government. Marine forces were organized into the 4th Marine Expeditionary Brigade and included a Provisional MAG. By the end of May and early in June, Marines were being withdrawn.

In late 1960 and early 1961, one of the most significant acquisitions for Marine Aviation began to come into the inventory, the Lockheed GV-1 *Hercules* transport, which was later given the unified designation of C-130. This was a four-engined turboprop transport with many improvements in speed, range and small field capabilities over anything the Marine Corps had previously operated. The C-130 was extremely flexible and could be quickly reconfigured to carry troops, maximum cargo, casualties, airborne command posts, or to perform one of its prime missions, aerial refueling of the wing jets on long flights.

situation faced by South Vietnam in attempting to counter the determined communist guerrilla moment within its boundaries was deteriorating. Within this scenario, a requirement evolved for an increased commitment of U.S. helicopter capability in country, in order to improve the mobility and responsiveness of Republic of South Vietnam Army (ARVN) troop in executing counteractions against guerrilla attacks. It was decided to deploy a 1st MAW helicopter squadron into the Delta area.

A task unit was quickly formed by the 1st MAW while participating in an exercise in the Philippines, including Medium Transport Helicopter Squadron (HMM) 362, a squadron with 24 UH-34s, augmented by three light observation aircraft, one R4D transport and 50 additional helicopter maintenance personnel; and a sub-unit of Marine Air Base Squadron 16, reinforced. The task unit was code-named "Shufly" and operated in Vietnam with different components and in different Corps areas for the next several years. The force-in-readiness posture and responsiveness of Marine Aviation was again demonstrated, as the task unit was in place at Soc Trang less than two weeks from the date of approval of the deployment.

It was an interesting operation in the light of what was to follow. The entire sub-unit for the operation of the base at Soc Trang was flown from Okinawa by C-130s in less than five days into a field 3,000 feet long with jury-rigged navigational aids. The next day HMM-362 arrived from USS *Princeton*, during an all day procession of lifts, with all its equipment and personnel from about 20 miles off the coast. In the lift from the ship, 362 were assisted by HMM-261, the squadron regularly assigned to *Princeton* as part of the Special Landing Force, 7th Fleet.



Several squadrons were equipped with the Douglas F4D to provide an interceptor capability.

VI. Southeast Asia Involvement

By 1961, the military advisory group in South Vietnam was being built up. The

By the latter half of 1964, the Military Assistance and Advisory Group in Vietnam had grown to about 20,000 U.S. personnel and had a new name, the U.S. Military Assistance Command, Vietnam (USMACV). Marine Aviation was continuously represented in country from 1962 by the helicopter squadron of Task Unit Shufly. Up to 1964, helicopter squadrons of the 1st MAW had been rotated to Shufly about every four or five months. Thus, by the time the escalation of U.S. forces began in early 1965, the 1st MAW had considerable experience in the tactics and operation of helo troop lifts in Vietnam combat.

The commitment of U.S. forces had its beginning in early August 1964. Ships of the 7th Fleet on surveillance missions off the North Vietnam coast were attacked by North Vietnamese torpedo boats on the night of August 2.

With growing harassment of American compounds in Vietnam in the latter months of 1964, retaliatory strikes were

beginning of the Vietnam conflict, although a considerable number of actions against the Viet Cong preceded them in the south.

On March 8, 1965, in response to a decision of President Lyndon Johnson, the 9th Marine Expeditionary Brigade (MEB) landed at Danang to protect the airfield from possible communist attack. By mid-March, the air component of the brigade consisted of two medium transport helicopter squadrons, one light anti-aircraft missile battalion, and a group headquarters, MAG-16. All the aviation units were attached to MAG-16 under Colonel John H. King, Jr. On April 10, additional tactical aircraft arrived at Danang when Marine Fighter-Attack Squadron 531 landed after a nonstop, aerial refueling flight from Atsugi. Ground personnel and equipment were flown in by the KC-130s of the 1st MAW. Also during April, the need arose for electronic warfare aircraft to counter the growing use of surface-to-air missiles. Marine Composite Squadron (VMCJ) 1 at Iwakuni, Japan, has the best aircraft for this mission. The EF-10Bs were soon effectively supporting USAF, Navy and Marine strike groups on their missions. Fortunately, 1st MAW was able to support MAG-16 with a detachment of KC-130s based in Japan.

In May, the 3rd MEB, under Brigadier General Marion E. Carl, landed at Chu Lai about 50 miles south of Danang. The brigade was composed of the 4th Marines and MAG-12, plus Naval Mobile Construction Battalion 10. One of its principal objectives was to select a site and construct a second major jet-capable airfield.

The first step was the installation of a short airfield for tactical support (SATS), a Marine Aviation concept which provided a field complete with carrier deck-type arresting gear, catapult and an aluminum surface of interlocking lightweight metal alloy planking. The concept also included a tactical airfield fuel dispensing system. Much difficulty was encountered with the base of soft sand at Chu Lai in the installation of the SATS but, by the end of the month, 4,000 feet of usable surface was down and the first landing of an A-4 into the gear was made on June 1, by Colonel John D. Noble, C.O. of MAG-12. By mid-afternoon, with the use of jet-assisted takeoff bottles, the first combat mission was launched from Chu Lai, led by Lieutenant Colonel R. W. Baker, C.O. of VMA-225. On May 11, Major General Paul J. Fontana opened 1st MAW headquarters at Danang and the Marine air-ground team was beginning to function in all respects.

By September, more changes had occurred. MAG-36 had deployed from Santa Ana to Chu Lai and was ensconced in a new helicopter field called Ky Ha.

MAG-16 had been relieved of its jet squadrons by the arrival of MAG-11 from Atsugi, and was operating its helicopters from a new base in the immediate area of Danang called Marble Mountain. In the north at Phu Bai, one helo squadron operated in support of the ground units deployed in the vicinity.

After the helicopters moved to Marble Mountain, new construction began on a parallel runway at Danang. The shifting, while building and operating, continued through the year and well into 1966 before the new 10,000-foot runway and taxiway systems were completed.

At Chu Lai, a similar plan of expansion was laid down in mid-1965 which was realized in the fall of 1966 with a 10,000-foot runway just west of the SATS strip. At that time, MAG-13 came in from Iwakuni and occupied a new area on the west side of the field.

Although there were many helicopter bases of varying capacities, as well as some fixed-wing strips, built in the northern part of I Corps Tactical Zone (ICTZ) in the ensuing years, the foregoing represent the main bases of the 1st MAW units from 1965 to 1970.

In mid-1965, there were nine fixed-wing and five helo squadrons deployed in the 1st MAW. In 1968, there were 14 and 14, or half the deployable squadrons of Marine Aviation. It is also significant that no more squadrons of the Marine Corps could be deployed since all the remainder in the U.S. were required to train either individual replacements or were squadrons participating in the unit rotation program for introduction of new aircraft.

During the Korean War, there was a strong element of dissatisfaction at certain times with the idea of all Marine Aviation tactical units being under the operational control of the 5th Air Force. Several years prior to 1965, CinCPac had convened a special board to examine the employment of tactical air and the lessons to be learned from the Korean War. The board was composed of members of the CinCPac staff and each of the component commands, Army, Navy and Air Force, and was headed by Brigadier General McCutcheon, then-Assistant Chief of Staff for Operations, CinCPac.

The board met and drew up guidelines for CinCPac directives promulgated in the Vietnam war years. As a result, an agreement was reached between Commander 7th AF (formerly 2nd Air Division) and Commanding General 1st MAW in August 1965, delineating the levels of control. Essentially, this left operational control of Marine Air under the 3rd Marine Amphibious Force, except that single control authority for purposes of air defense was given to the 7th AF. This remained the basic policy for



The McDonnell FH Phantom was a fighter-attack aircraft with photoreconnaissance capabilities.

ordered against the North. On February 7, carrier strikes from Task Force 77 hit enemy barracks at Dong Hoi and, on the 11th, 99 aircraft from *Ranger*, *Hancock* and *Coral Sea* bombed and strafed the North Vietnamese barracks at Chanhua. On the same day, South Vietnam and U.S. Air Force aircraft also struck Vu Con. These strikes were the start of a bombing operation against North Vietnam called *Rolling Thunder*, designed to increase both in intensity and depth of penetration. *Rolling Thunder* was conducted in conjunction with a similar operation against the panhandle of Laos, in an attempt to inhibit the passage of troops and supplies from North Vietnam to the south. The Laos operation was called *Barrel Roll*. Both of these strike programs against the North marked the

command and control of Marine Aviation in Vietnam until 1968 when the subject arose again.

At the start of the escalation of U.S. deployments to Vietnam, the Marine air control system (MACS) was basically composed of the same elements as in Korea.

In June 1967, MACS-4 arrived in Vietnam, bringing with it a modern semi-automated, computer-oriented TADC which had been developed as a component of the Marine tactical data system (MTDS). MACS-4 was sited on Monkey Mountain, near Danang, a high promontory overlooking the South China Sea. More construction at the site was needed because, in addition to the radars and their antennae, room had to be made in the thick jungle for 16 helicopter-transportable huts for the TADC and for four others that comprised the tactical data communications central (TDCC). It was worth the effort, however, as the TADC gave the wing the ability to handle 250 aircraft tracks, friendly and hostile, simultaneously.

It was recommended that the various service air control systems talk to each other. The TDCC turned out to be the logical link. From the time it was in place, the TADC was operating with the naval tactical data system and the airborne tactical data system units of the 7th Fleet in the Tonkin Gulf, both of which were compatible with MTDS from the development period on. The loop was closed with the Air Force system. Essentially, this allowed the receipt of messages from either Navy, Marine or Air Force systems, the translation of the one received into the other two, and the transmission of the translations to the respective centers where they could be displayed. The net result was that air defense and air control data could be passed from Thailand to Danang to 7th Fleet ships in the Tonkin Gulf, and vice versa.

Much like Korea, Vietnam for Marine Aviation was not an air-to-air show. North Vietnamese aircraft were employed mainly in the Hanoi-Haiphong area and the 1st MAF concentrated on support of the Marine divisions operating in the I Corps. Three kills of MiGs were credited to Marine pilots, two of whom were on exchange tours of duty with the Air Force, and the third with a Marine F-4 squadron operating aboard *America*.

In direct air support missions, including close air support, there were some notable differences in Vietnam from previous operations. With few exceptions, air strikes had to be controlled by an airborne controller, and there had to be a political clearance in addition to the tactical go-ahead to hit the target. Not only was it necessary to know the exact position of the requesting unit



In-flight refueling and transportation of cargo and personnel is provided by the Lockheed C-130 of the VMGR squadrons.

and the target area of the village, but it also was essential to know the location of any friendly villagers or district militia who might be in the environs of the village. This additional clearance requirement sometimes came through the Province Chief, through ARVN channels, or was included in the mission. Needless to say, it was a complicating factor, although essential and understandable. What it did was to minimize the roles of the FAC on the ground and increase the activities of the Forward Air Controllers Airborne.

When the A-6A deployed to Vietnam, all-weather air support capability was measurably improved. The A-6 could deliver weapons at night or in bad

weather with accuracy approaching that achieved by the A-4 in clear weather. Carrying a normal load of 14,000 pounds of ordnance, this A-6 capability was extremely useful in the monsoon season.

Both the F-4 and A-4 were used primarily in direct air support, most of the time in daylight clear weather. The average ordnance loads were 3,000 pounds for the A-4 and 5,000 for the F-4. The F-8 was similarly used from December 1965 to May 1968. VMF-212 embarked in *Oriskany* in 1965 and flew strikes in both North and South Vietnam.

On April 1, 1966, the USMACV was authorized by CinCPac to conduct air strikes in the demilitarized zone (DMZ) and north of it in a strike zone known as



First used in WW II, the Douglas R5D continued its mission of logistic support into the 1960s.



All-weather bombing became a reality with the introduction of the Grumman A-6.

Route Package One. By midsummer, 1st MAW aircraft were assigned to hit targets in this package, most of them artillery and rocket sites. Late in 1966, Marine A-6s began striking targets as far north as Hanoi and Haiphong, and continued until the bombing halt in 1968. Most of this work was done at night and EA-6As provided electronic jamming, with F-4Bs flying escort.

The EA-6A was indeed a welcome arrival at the 1st MAW late in 1966. By that time, the surface-to-air missile strikes had reached serious proportions and it was only a matter of time before Marine aircraft were frequently encountering the threat. Again VM CJ-1 carried out a major portion of the area reconnaissance and electronic warfare mission for USMACV, just as it did for 5th AF in the Korean War with its photographic reconnaissance. VM CJ-1 provided escort for B-52s, support for tactical air strikes, and collection of all forms of electronic intelligence. On the photorecon side, VM CJ-1 was operating in a science which had become much more sophisticated and was now called "imagery intelligence."

Employment of transports was essentially a story of two aircraft, the KC-130 and the ancient and honorable C-117, the old R4D-8. Normally the C-117 was organic to each MAG and only assigned at a level of one per group. The old *Skytrain* was certainly the queen of the three-war group, serving in WW II, Korea and Vietnam. VMGR-152, the 1st MAW's KC-130 squadron kept a four-plane detachment at Danang. It did everything in the air transport line that could be done.

If one had to hang only one characteristic on the Vietnam war to describe it in the Marine Corps experience, it would have to be named a "helicopter war." Marine Aviation deployed seven medium transport

helicopter squadrons and three heavy squadrons out of a total of 12 mediums and six heavies before the war was over. In addition, gunship versions of the UH-1E were introduced and deployed in the VMO squadrons. In 1969, the AH-1G *Sea Cobra* arrived and operated first in the HML units which had come into being during the war to handle the increased number of UH-1Es.

With regard to the transport helos, the UH-34 was the prime vehicle in the 1st MAW at the start of the war and through most of the following year. In midsummer 1965, a detachment of CH-37s was deployed to give a heavy-lift capability to the wing. The obsolescent CH-37 was a valuable addition and stayed in Vietnam until early 1967 when the first echelon of CH-53s arrived. The CH-46 made its first appearance when HMM-164, landed at Marble Mountain from USS *Valley Forge* in March 1966.

There were several technical problems that had an impact on helo employment in Vietnam. First, the high temperature and high humidity reduced payload; second, the sandy and dusty landing zones created engine maintenance problems; and, third, installation of additional armor to protect their vital parts became a requirement in all helos as enemy AA effectiveness increased. Another need was the mounting of door guns and at least one gunner (the crew chief manned a second gun) in the transport helos, further adding to the weight of the machine and reducing its payload.

By the end of 1965, the transport helos were lifting an average of 40,000 passengers and over 2,000 tons of cargo per month, mainly out of the two principal bases at Ky Ha and Marble Mountain. By 1968, this had steadily increased to better than 50,000 passengers and over 6,000 tons per month, the increase in capability coming largely from the

introduction of the CH-46. In the first half of 1970, even though the phase-down of Marine forces had already begun, they were lifting more than 70,000 passengers and 5,000 tons in a single month, thanks to the increasing numbers of CH-53s in the wing.

One of the most hazardous missions was the evacuation of casualties at night or in bad weather. Most of these types of medevacs were requested by troops in close contact with the enemy and there were no aids to help the pilot in finding the zone and landing in it. Flare aircraft were often used to illuminate the zone for night pickups, and gunships or jets provided fire suppression.

It is interesting to compare the Vietnam figures on medevacs with those in the Korean War. Where the latter were measured in the low thousands, including the fixed-wing evacs, in 1968, a peak year in Vietnam, the helos evacuated 67,000 casualties during 42,000-plus sorties. On these evacs, a very large number of the helos received battle damage and crew casualties, with a high percentage of the crews earning the Purple Heart. The double-barreled conclusion adds up to the fact that the helo was one great innovation, and it required lots of staunch pilots to realize its full potential.

At the start of Vietnam, there were only 12 light helos in each VMO squadron of the 1st MAW. Two additional VMOs were soon authorized and, in 1968, a further reorganization established three VMOs and three HMLs. The VMO complement was set at 18 OV-10As and 12 light helos, and the HML complement at 24 light helos. By the latter part of 1968, two of each type of squadron were in the 1st MAW, giving the wing a total of 72 light helicopters, including gunships.

In a war of the complexity reached in Vietnam, an appreciation of the part played by Marine Aviation is achieved through a year-by-year summation of operational statistics. It is important to keep in mind that few movements of troops of III Marine Amphibious Force (MAF) were by ground vehicle. It was truly a helicopter war. All the other elements of the air-ground team were present and fully functional, but the vehicle that characterizes the war for most Marines is unquestionably the helicopter.

For each of the regimental or battalion-size operations, the troops were put in initial position by escorted helolift. Also, fire suppression fighters and attack aircraft kept the landing zone sanitized as much as possible during the landings, and aided in preparation of the landing zone. In addition, close air support aircraft were either on station overhead or were on call when requested. Once the unit landed, of course, casualty evacuation and resupply were both a part

of the operation plan. When the operation was concluded, the helos and their friends were again on hand to extract them.

In 20 months, III MAF had grown from the initial brigade landing at Danang to a two division, reinforced wing air-ground team, totaling almost 60,000 Marines.

During this first 18 months of the war, operations or operation "code names" familiar to many Marines include the following: Starlite, Piranha, Blue Marlin, Hiep Duc, Thach Tru, Golden Fleece, Harvest Moon, Double Eagle, New York, Texas, Indiana, and Ky Lam.

1st MAW sorties during the 18 to 20-month period through December 1966, totaled the following: 61,457 fixed-wing

fighter/attack sorties, with 79 percent in direct support of III MAF, 15 percent against targets in North Vietnam, and the balance of six percent in support of South Vietnamese units; 436,267 helicopter sorties, with 88 percent in support of III MAF, seven percent for South Vietnamese units and five percent for Korean Marine battalions.

At the end of 1967, III MAF had reached a strength of 81,115. This was an increase for the year of 10,737. The statistics for the year were astounding. In 1967, III MAF conducted over 110 major operations of battalion size or larger. There were 356,000 small unit operations. These two types of operations resulted in 17,876 enemy

killed during the year.

Supporting the III MAF ground operations, the 1st MAW flew 63,000 fighter/attack sorties in direct support, and 10,000 more in support of other ground units in country. In addition, there were 11,000 1st MAW strike sorties over North Vietnam. Total ordnance expended by the fighter/attack sorties for the year included 134,000 tons of bombs, 166,000 rockets and 2,100,000 rounds of 20 mm ammunition.

1st MAW helicopters flew a total of 490,000 sorties and lifted a total of 732,000 troops, besides performing evacuation, resupply and a host of other support missions for units in and out of combat.



HMR-161 continued in Vietnam its helo support role which it began in Korea with the CH-46.

1968 was a divided year in the I Corps. The first half was characterized by the greatest combat activity of the war. III MAF, working primarily with South Vietnamese Army units, defeated the North Vietnamese forces as they came across the DMZ, expelled them from Hue, and punished them severely at Khe Sanh. Beginning with the Tet offensive in and around Hue at the end of January, the intensity was maintained into the late spring. At that point, the North Vietnamese effort shifted south against Danang.

Fixed-winged combat sorties by the 1st MAW for the year came to a total of 90,786 and helo sorties reached better than 632,000. Of the fixed-wing sorties, 14,843 were against targets in North Vietnam and the balance of 75,943 were on in-country missions with the great majority being in direct support of III MAF units. The helo sorties equated to a total lift of 939,999 troops and a total cargo lift of 109,621 tons. Total sorties for both fixed-wing and helos approached twice the numbers for 1967. The year had been a loser for the North Vietnamese/Viet Cong generally, and it marked a general shift in strategy back to the guerrilla, small Viet Cong detachment type of harassment of the countryside and the allied base establishments.

The year 1969 marked the start of the withdrawal of III MAF units from the Vietnam war. For the 1st MAW, this began in August with the redeployment of an F-4 squadron to Iwakuni and a CH-46 squadron to Futenma on Okinawa and a *Hawk* anti-aircraft missile battalion which had been in country since February 1965. August also saw the last of the UH-34 squadrons depart Vietnam. It was not a withdrawal as such but was a rotational relief by a CH-53 squadron. These August examples show the pattern for the months to follow as the overall reduction slowly went into gear through 1970.

In 1969, the 1st MAW flew a total of 57,677 fighter/attack, plus other fixed-wing sorties, in direct support of III MAF units in country, and 26,157 on missions against North Vietnamese targets and other out of country objectives. A total of 514,383 helo sorties were logged for the year, lifting 103,747 tons of cargo of all kinds and carrying 788,951 troops.

With the continued unit withdrawals during 1970, the 1st MAW sortie statistics show a marked drop as predicted above. Fixed-wing sorties dropped to 24,353 in country and to 8,083 out of country, almost a two-thirds drop in both cases from the previous year. Helo sorties dropped to 381,712 with the cargo showing an expected drop but the passenger figure actually showing a substantial increase over 1969. These differences undoubtedly reflected the

greatly increased capabilities in country of the added CH-53 units. Cargo for the year hit a total of 64,035 tons and the passenger figure totaled 824,868 troops lifted.

On April 14, Lieutenant General Donn J. Robertson, then Commanding General, III MAF, moved the headquarters to Okinawa. It had been just short of six years in Vietnam. The 1st MarDiv headed for Camp Pendleton and 1st MAW Headquarters for Iwakuni. The latter, however, was without its commanding general, Major General Alan Armstrong, who was staying behind as Commanding General, 3rd Marine Amphibious Brigade, the "clean-up" unit. This brigade was made up of the air, ground and logistic units that were to stay behind as the final phase-down was completed. It totaled 13,600 Marines, with the principal units being the 1st Marines, reinforced, with MAG's 11 and 16 in support. On June 1, Marble Mountain Air Facility was turned over to the U. S. Army, as Danang Air Base MAG-11 facilities had been to the U. S. Air Force the week before. Finally, on June 26, General Armstrong put the last 10 members of the brigade headquarters aboard a C-130 and departed for Okinawa, closing the book on this phase of the Vietnam war. A second phase, however, was in the making in the form of a North Vietnam "Easter Offensive" to come in 1972. Some of the 7th Fleet Marines would be back within a year.

It is important to mention once more the great value of the close relationship between the Navy and the Marine Corps, both air and ground. For example, the 7th Fleet battalion landing team, known as the "BLT afloat," was maintained all during the period of the Vietnam war with its helo lift of one HMM squadron. When the "crunch" was really on any aspect of III MAF operations, both the BLT and its HMM could also be temporarily deployed ashore to reinforce units that were under particular pressure. Another aspect of the benefits of the relationship was the high order commonality between Marine and Naval Aviation. This was exemplified through uncomplicated support rendered by TF-77 carriers to III MAF operations from time to time. It worked in the other direction as well through the flying of a protective barrier combat air patrol by 1st MAW fighters, particularly when TF-77 was striking the Hanoi/Haiphong targets from the extreme northern reaches of the Tonkin Gulf.

It did not take the North Vietnam government long to test the South Vietnamese forces after the departure of

their friends. On March 30, 1972, a major three-pronged attack was launched against the northern tactical zone, against the highlands toward Kontum out of Laos, and against An Loc in the south out of Cambodia.

At sea, by the end of the first week in April, the 9th Marine Amphibious Brigade, under Brigadier General E. J. Miller, was a part of the amphibious force of the 7th Fleet. This time it was composed of four BLTs and two composite helicopter squadrons, and its mission was limited to the provision of helicopter and amphibian tractor support to the embattled Vietnamese Marines.

On April 6, MAG-15, moved into Danang with two F-4J squadrons, VMFA-115 and VMFA-232. A third squadron, VMFA-212, flew in from Kaneohe on the 14th. MAG-15 was to concentrate its efforts in the northern half of South Vietnam and along the Laotian border. A fourth squadron, VMA(AW)-224, was aboard USS *Coral Sea* but most of its work would be against targets in North Vietnam and in Laos.

On May 16, MAG-12, with VMAs 211 and 311, began operations from Bien Hoa near Saigon. MAG-12 efforts were to be concentrated in the southern half of South Vietnam and along the Cambodian border. The strikes of both MAGs in direct support of South Vietnamese troops were invariably under the direction of an airborne controller. Estimates of effectiveness of their support showed that half the enemy tanks destroyed and half of the casualties inflicted on the



A CH-53 provides helo support in Vietnam.

North Vietnamese forces were attributed to tactical air.

By late fall, the situation was somewhat restored. It was a state of equilibrium rather than a successful conclusion that had been achieved. Meanwhile in Paris, the peace talks which had been in progress off-and-on for some years were continuing.

Just before the South Vietnamese counteroffensive began at the end of June, Task Force Delta was reactivated by the Assistant Wing Commander of the 1st MAW. It was sent to Thailand to an air base called Nam Phong in mid-May and, by the middle of June, the camp was ready, the squadrons arrived, and operations began immediately. Although at first the field was completed, nothing else had been finished and the Marines promptly dubbed the place the "Rose Garden." MAG-15 redeployed to Nam Phong from Danang during June.

On January 27, 1973, after four years of "off-and-on" negotiations, the so-called Peace Accords were signed by South Vietnam, North Vietnam, the Viet Cong and the United States. It was to go into effect at midnight on the signing date. The only aspect that meant anything in the way of a gain to the United States was the return of 649 American POWs, 26 of whom were Marines.

Marine Aviation participated in the minesweeping chore with squadrons assigned to 7th Fleet carriers and amphibious shipping, both with fixed-wing fighters and electronic warfare



The OV-10 Bronco took over the observation and light-attack missions.

aircraft, and with many helicopter sorties as well.

April 1975 turned out to be a very big month in the U. S. "retreat" from Southeast Asia, as the situation in Cambodia was on just as steep a deterioration curve as that in South Vietnam. On April 1, the government of President Lon Nol collapsed when he left the country on an "official visit" to Indonesia. On April 12, President Ford gave the order to execute an evacuation plan from the U. S. Embassy in Phnom Penh for U. S. nationals and those foreign nationals who chose to leave. The operation was called *Eagle Pull* and brought 300 Marines into the compound from the 31st Marine Amphibious Unit (MAU) off the coast in 7th Fleet shipping. The Marines came in by CH-53 helos and within two hours had lifted 276 Americans and other nationals to safety aboard ship. The last trip took the embassy guard Marines and the U. S. flag out just as the first Khmer Rouge artillery rounds impacted on the soccer field being used as the evacuation point.

On April 21, the collapse of the South Vietnamese government was imminent with the resignation of President Thieu. Planning for the evacuation of the U.S. Embassy and American nationals began with the visit of an advance party from the 9th Marine Amphibious Brigade on April 20. The 9th MAB was composed of Regimental Landing Team 4, Provisional MAG-39, plus a logistical support group and an amphibious evacuation security force. On April 28, President Ford finally gave the order to execute the plan. The two helo squadrons, HMH-462 and HMH-463, began bringing in BLT 2/4. Three platoons were lifted into the embassy to reinforce the guard there. From Tan Son Nhut, the evacuation proceeded with the

dispatch of 395 Americans and 4,475 Vietnamese to the ships by midnight in CH-53s.

At the embassy in Saigon, things had not been as smooth. The refugees had turned into a mob. The evacuation went on all night, and while plans had called for only 100 Americans to be taken out from that point, before it was ended, 978 Americans had been lifted out and 1,120 foreign nationals and Vietnamese as well. The last 11 Marines were lifted off the roof just before 0800 with the North Vietnamese troops already well into the city.

The Vietnam war was the longest and, in some respects, the biggest war in the history of the Marine Corps. III MAF, including the 1st MAW, at its peak strength in 1968 of 85,755 Marines, represented roughly 16.3 percent of the set troop ceiling in Vietnam. From January 1, 1961, through December 9, 1972, 28.2 percent of the U.S. KIA, 33.5 percent of the U.S. wounded who required hospitalization, 4.7 percent of the U.S. prisoners and 8.0 percent of the U.S. MIA were Marines.

In WW II, 19,733 Marines were killed as compared to the 12,936 in Vietnam, but the wounded total came to 67,207 for WW II compared to the higher total for Vietnam of 88,589. Included among the many explanations for this difference could be such factors as the different general characteristics of the two wars; medical evacuation techniques, the different levels of usage of land mines, booby traps, and trip wires, and a host of other explanatory factors. However, evidence does point strongly to the medical evacuation time difference as one of the most plausible explanations.

Many of the specific lessons derived from the Vietnam conflict for the Marine





AV-8s brought one of the newest techniques for close air support to the Marine Corps.



The F/A-18 Hornet gives the Marine Corps the latest in jet fighter technology.

Corps air-ground team and its combat systems have become doctrine, and have received steady updating since.

With the Vietnam war a matter of history, the Marine Corps turned to the future. General Robert E. Cushman, the twenty-fifth Commandant of the Marine Corps, said: "...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...." In 1972, when Gen. Cushman summarized the direction the Marine Corps would take, the disposition of major units was essentially back to where it was at the start of the war. Reevaluations of old methods and tests of new approaches were part of every maneuver and exercise that could be scheduled, from small unit evolutions to division/wing size and larger.

VII. Pressing on Toward the 1980s

In 1978, to further augment the wholesale test and evaluation effort, Marine Corps Base, Twentynine Palms, Calif., was redesignated as an air-ground combat center. This provided test and evaluation of control systems and methods for all firings of combined arms and direct air support. A major effort was made to schedule both ground and air units through the center as a priority item in their training cycles.

An important development of this period was the establishment of the Marine Air-Ground Task Force (MAGTF) organization structure. There are four major elements which are assigned: the command, ground combat, aviation combat and combat service support. The aviation combat element may range in size from a reinforced helicopter squadron to one or more aircraft wings.

A complementary concept to the MAGTF organizational structure is a prepositioning idea which places equipment and supplies, in ships, in a forward area for future link-up with

MAGTF personnel. It is called the maritime prepositioning ships (MPS) program, and is usually included in planning considerations at the MAB level only. For the marriage of the MAB personnel with the supplies and equipment, a benign area in the crisis region, with a suitable airfield, is a requirement. MPS units have no forcible entry capability whatsoever.

The malaise so prevalent and of such great concern on the campuses of the sixties was gone with the war. In its place, as far as the armed services of the country were concerned, was a refreshing response. A new pride in service in the armed forces had taken control in the early eighties.

From 1975 onward, Marine Aviation buckled down to a more encompassing realization than ever that the next performance improvements were going to be more costly in budget dollars than ever before imagined. One of the first of the "new looks" greeted some of the first Marine units to return from the war in the late spring of 1971. It was the AV-8A, the British-built Hawker-Siddeley *Harrier*, with its vertical take-off and landing capability. The second version, produced largely in the U.S. by McDonnell Douglas, the AV-8B, began to come into the inventory in the mid-eighties. With its advanced capabilities, it could open a whole new approach to operation of higher-powered tactical aircraft from not only small ships in the amphibious force, but also from relatively unprepared and dispersed sites ashore. The AV-8B has twice the range or payload of its predecessor.

One of the upgrade programs eagerly anticipated for the latter eighties is directed toward enhancement of the night attack capabilities of both the AV-8B and A-6E. The AV-8B will be the first to be configured. The A-6E will be upgraded to the A-6F, which will bring to this valuable all-weather attack aircraft increased capability, survivability and extended life.

In the mid-eighties, Marine Aviation began to receive its replacement for the

F-4 series fighter/attack aircraft. It is the reliable and effective F/A-18. This responsive, agile fighter and solid accurate attack weapons platform is currently planned for 12 squadrons. Two of these units will deploy to fleet aircraft carriers in continuance of the interoperability program of the Secretary of the Navy.

Also coming into the Marine Aviation inventory in the mid-eighties is the beginning of a two-year buy of 44 AH-1T attack helicopters. The receipt of this aircraft fills in some long-standing inventory blanks in this category.

In transport helos, the upgrade programs for the CH-46 and CH-53 have extended their capabilities and their inventory lives well into the next century. The CH-53E *Super Stallion*, now in the inventory, is the free world's most capable heavy-lift helicopter. Down the road is the MV-22A *Osprey* tilt-rotor aircraft which promises to exceed by a wide margin the best performance figures of any of the current helicopters. Its predicted speed and range are so improved that it is an advance of technology comparable to the introduction of the jet engine.

All of the planned programs, when added to the superior capability of the already developed upgrades and extended life programs, give Marine Aviation a sound basis indeed as the turn of the century draws closer. That it is sound in training, procedures, tactics and general employment is reflected in the fact that in the mid-eighties Marine Aviation does more, far better, than ever before. It does all this with a continuing, ever-improving safety record and day-in, day-out systems availability that represent the best it has ever achieved in its 75-year history.

Various stages of the programs briefly referred to above were realized by the early eighties when the MAU deployments to Lebanon and Grenada took place. For this depiction of Marine Aviation, it will suffice to say that, in those two operations, the aviation combat element of the MAU performed, with readiness, whatever the combat element of the MAGTF directed. Neither operation could be readily compared with the mount-out and support of the 1st Marine Brigade in the Pusan perimeter in 1950, nor to the birth of III MAF at Danang following the landing of the 9th MAB there in 1965.

The common factor in all of these post-WW II Marine Corps events and the most important one over the years is that, in each case, it was aviation Marines supporting ground Marines. This is the way the founding fathers of Marine Aviation wanted it to turn out. May it never change — in space, or wherever else the Corps is bound. ■

