Clearing away thick vegetation for the cantonment area was an initial task of Marine and Navy engineers. Existing base facilities were insufficient in quality and quantity for the increased number of personnel required to support the expanded Marine Air Group 15.

Within a short time, this tent city was erected to become the billeting area for Headquarters and Maintenance Squadron 15 and Marine Air Base Squadron 15. Looking south, in the foreground are supplies and material being stored in the open for lack of adequate warehousing. The jungle terrain surrounding the base appears to stretch to the horizon.
was reduced by 500 pounds to compensate for extra fuel. Support of operations from Nam Phong required three H&MS-15 detachments to “turn around” aircraft: Detachment Alpha at Da Nang to rearm and refuel, Detachment Bravo at Cubi Point for maintenance work, and Detachment Charlie at Iwakuni for administrative and logistical liaison with 1st MAW. Detachment Alpha started at Da Nang on 3 July, increasing mission and sortie rate. On 8 July, TF Delta aircraft intercepted two Communist MiG-19 Farmers over North Vietnam, the task force’s first air-to-air encounter with the enemy in its new area of operations.

Ground security considerations for the task force were different from those at Da Nang and Bien Hoa. Although Companies L and M, 9th Marines moved into Thailand with MAG-15, Nam Phong’s location removed the immediate threat of ground attack that had existed in South Vietnam. The infantry Marines were formed into the TF Delta security element and designated “Sub Unit (SU1)” of MABS-15. The commanding officer was Major John M. Campanelli, an experienced infantry officer, assisted by Captain Philip F. Reynolds as executive officer and Captain Thomas D. Martin as operations officer. The sub unit consisted of 11 officers and 363 Marines organized along the lines of a small infantry battalion—rifle companies with headquarters and service company support, including communications, 81mm mortars, motor transport, and medical sections. Its mission was to provide base security and military police support to the task force. The Marines were armed with the full range of small arms, but were restricted to using only illumination rounds from their M79 grenade launchers and mortars. With no known external threat, Major Campanelli concentrated his efforts on interior guard and security of vital areas: the fuel and ordnance dumps, the flight line, and maintenance facilities. Guard towers, bunkers, barbed wire, and chain-link security fences were built to control the perimeter and vital areas. The size of the base required more men for guards than SU1 could provide and it was augmented by MABS-15 and the flying squadrons. After the initial 90-day TAD period passed for the “Grunts,” Headquarters Marine Corps assigned infantry replacements directly to 1st MAW. Major Campanelli hired 100 Thai auxiliary security guards from the Special Forces Camp to augment the Marines and, on 30 July, 12 guard dogs arrived.

The Rose Garden Grows

Task Force Delta air operations were of three distinct types: day fighter-cover, day ground-attack, and night ground-attack. These missions in turn were associated with specific geographic areas and targets. Most numerous were daytime flights supporting MACV and the South Vietnamese in MR 1, MR 2, and Route Package 1 during the combat to regain Quang Tri Province. These tasks were conducted with F-4s and A-6s using bombs, rockets, and cannon fire. Sorties normally consisted of two or three aircraft each. Daily the aircraft lined up on Nam Phong’s single runway.
Task Force Delta
Command Relationships

Seventh Air Force

1st Marine Aircraft Wing

TF Delta

MAC Thailand

Headquarters
Task Force Delta

7th Counter Intelligence Team

Det 152

Det 36

Logistics Support Group

MAG-15

H&MS-15

MABS-15

VMFA-115

VMFA-232

VMA(AW)-533

MATCU 62

SECURITY (3/9)

AMPAC

(Civilian Contractor)

Operational Control

Coordination

Scheduling Authority

Adapted from Task Force Delta Material
An essential element of the air effort was the continued upkeep of aircraft systems. The Wonder Arch shelters allowed the 24-hour-a-day support needed to keep the planes flying.

with engines screaming at 100 percent power as the pilots checked engine instruments. Each aircraft then took off in turn and quickly rendezvoused on its climb out to the target area. Many of the Marine flights hit a target, flew to Da Nang to refuel and rearm, and then flew another mission on the return to Nam Phong.

Fighter cover was in support of the ongoing strikes by Seventh Air Force against the North Vietnamese political and economic infrastructure. The strikes, which had begun on 8 May, were part of an extensive naval and air campaign to pressure the North Vietnamese into a negotiated settlement. The campaign included the mining of harbors, attacks against economic targets, the use of precision-guided munitions ("smart bombs"), and a massive increase in the size and durations of strikes with the aim of reducing the flow of supplies into North Vietnam and support to operations in South Vietnam. In contrast to the previous, graduated campaigns, commanders took all necessary steps to ensure target destruction.\footnote{The final analysis of air power in the Linebacker Campaign of 1972 is outside the scope of this study. The U.S. Air Force review of this section questioned whether the difference between Rolling Thunder and Linebacker was one of target destruction or a shift from attacking the economy to disrupting the storage and distribution of supplies (Bernard C. Nalty, Comment on draft ms, 3Jan90 [Vietnam Comment File]).}

Marine F-4s conducted combat air patrols to protect support aircraft from North Vietnamese reaction. This required them to fly a specified orbit point from which to cover tanker, command and control, electronic warfare, and rescue aircraft over Route Packages 4, 5, and 6. From orbit points they could track and engage North Vietnamese interceptors and air defense positions. Marine KC-130s refueled the fighters going

LtGen Louis Metzger of III MAF, right, visits Task Force Delta in late 1972. At left are BGen Robert W. Taylor, commanding Task Force Delta, and Col Aubrey W. Talbert of MAG-15. As the war concluded, there was a continued need to keep combat units in place to help ensure ceasefire compliance by the enemy.

Marine Aircraft Group 15 Command Chronology
in and coming out. These missions witnessed Marine air integrated with the Air Force in air-to-air and deep-penetration flight profiles.86

The interdiction of roads and trails in the Barrel Roll and Steel Tiger areas of Laos were the missions assigned the VMA(AW)-533 crews with their night armed reconnaissance abilities. Lieutenant Colonel Brown wrote that his squadron "... began interdicting convoys on Route Package 1 on 12 August and, like our entire effort, it was relentless. To the enemy, this incessant bludgeoning was crippling ... "81 First Lieutenant Gary W. Dolgin described the aircraft and men engaged in these night flights in 1972:

Aircraft L55707... has a long shadow cast behind her indicating a time late in the afternoon. She sits quietly, fueled, armed, and with power unit attached. In a few hours a crew of one pilot and one bombardier-navigator will walk out to her. The sun will have set since she last was inside North Vietnam terrain following at 420 knots over mountains and down in valleys headed for a target regardless of weather.83

General O'Donnell passed command of Task Force Delta to Brigadier General Robert W. Taylor on 23 August. Three days later, VMFA-232 lost an aircraft to a MiG-21 Fishbed over Laos. Both crewmembers ejected—the intercept officer was recovered and the pilot was missing in action.89 Colonel Aubrey W. "Tal" Talbert, Jr., commanding MAG-15, reported that to support the continued effort, the "... maintenance and supply effort to provide the full system aircraft needed in the hostile skies of North Vietnam has been substantial."84 For maintenance crews, the beginning and end of all efforts was to get their pilots and planes in the air on time, "the primary objective to achieve a Marine aerial victory over enemy aircraft."85 Life in Nam Phong or the "Rose Garden," as it was now popularly known by its Marine occupants, revolved around the cycle of fragging, scheduling, briefing, arming, fueling, launch, and recovery activities that always appeared at odds with the normal routine of living. The routines of day, night, sleep, meals, and the calendar had relatively little meaning in the operational and maintenance cycles of air units at war.

The need for adequate ground security was high-

*A nickname Nam Phong acquired from a contemporary Marine recruiting slogan, "We Don't Promise You A Rose Garden," and a popular song by Lynn Anderson with similar lyrics. General Metzger observed a single scraggly rose bush planted in the middle of the camp, "with typical Marine hump:" (Metzger Comments) lighted by terrorist attacks on Ubon and Udorn Air Bases in October. Concern for base security was at its peak at Nam Phong, recalled First Lieutenant George R. "Ross" Dunham of VMGR-152 Detachment Delta, when the sound of an explosion from the flight line brought cries of "Incoming, hit the bunkers!" from the billeting area. When the smoke had cleared, investigation determined that the accidental discharge of an air-to-ground rocket had occurred in the arming area.88 The ground threats to the safety of TF Delta remained thus self-induced or from the burgeoning local "black market" and other economic enterprises outside the base. Major Kent C. Bateman, the VMA(AW)-533 executive officer, believed that this situation precluded a real sense of involvement by the enlisted Marines. As only the aircrews experienced combat, "there was little sense of urgency by the ground and support personnel."87

When Major Kenneth N. Zike took command of MABS-15's Sub Unit 1 on 26 November, it had expanded to include 200 Thai auxiliaries. Patrolling outside of the perimeter, out to 16 kilometers from the base, was now the responsibility of Thai military forces, because of the reluctance of the Thai Supreme Command to allow the U.S. a ground combat role in Thailand. General Taylor and Royal Thai Air Force Special Colonel Supot, the base commandant, signed a joint base defense plan at the year's end, alleviating the remaining security concerns. This plan tasked SU1 with manning 27 bunkers and towers of the internal defensive position. The Thais manned the remaining 53 positions. Lighting and fencing continued to be installed and improved by the Marines. Two mobile reaction platoons were formed: one established near the combat operations center and the other at the bomb storage area. MABS-15 provided an additional civil disturbance platoon for riot duty.

With the arrival of the fall monsoon weather, conditions for visual delivery of ordnance declined. For the F-4s this meant level bombing using release points obtained from TACAN cuts, LORAN-equipped aircraft, and USAF Combat Skyspot control stations.88 The A-6s continued to operate day and night over the roads and trails of Route Package 1.88 By now, at the political level, offensive operations and successful South Vietnamese resistance brought the North Vietnamese to the negotiating table. Operations continued through the 23 October halt of bombing of North Vietnam above the 20th Parallel. The Seventh Air Force noted in November that VMFA-115 and VMFA-232 had the highest sortie rate of any land-
Fighter aircraft from MAG-15 being used in an attack role dropping general-purpose bombs. Notice the open hatch on the VMFA-115 aircraft above the letter E on the fuselage, indicating the deployment of decoy flares in response to a surface-to-air missile threat.

Combat artist Maj John T. "Jack" Dyer, Jr. sketched Phantoms in Wonder Arch hangars at Nam Phong, as the war continued into another year. The on-again-off-again nature of the deployment caused problems as the intensity of combat declined for the Marines.
based F-4 units in Southeast Asia. The offensive operations resumed with all-out air attacks against the North beginning on 18 December, and continued until combat flights in Vietnam ceased at year's end.

Statistics can only indicate the magnitude of the effort by TF Delta and MAG-15. Figures only imply the human costs and achievements of the aircrews and men who kept them operating; the personnel of Task Force Delta contributed toward the South Vietnamese defense and the U.S. air offensive of 1972. The North Vietnamese Army's transition to mobile warfare made it dependent on the delivery of fuel, ammunition, and other supplies coming by routes that were vulnerable to destruction from the air. In the resulting battle of attrition, airpower had a crushing effect on the enemy. Vice Admiral James B. Stockdale, USN, as a prisoner of war and an eyewitness to American airpower from the North Vietnamese capital in 1972, stated that, "If I learned nothing else during the eight years in wartime Hanoi, it was that Clausewitz is as right today as he was during the Napoleonic Wars; the name of the game in war is to break the enemy's will." This was the stated purpose of airpower. The North Vietnamese relabeled, however, on Ho Chi Minh's rejoinder to the air effort: "Hanoi, Haiphong, and other cities and certain enterprises may be destroyed, but the Vietnamese people will not be intimidated! Nothing is more precious than independence and freedom!"
CHAPTER 12
On Yankee Station

Support to the Navy: Task Force 77—All Weather Attack—More Support to the Navy—VMCJ
Snakes at Sea—Fighters over the North

Support to the Navy: Task Force 77

While Marine aircraft groups were supporting the U.S. Air Force, other air units were with the Seventh Fleet's Attack Carrier Strike Force (Task Force 77) of Vice Admiral Damon W. Cooper in the Tonkin Gulf. At the time of the 1972 Communist offensive, four carrier battle groups were in the Tonkin Gulf rather than the normal two. This increased to six by June and then to seven carrier groups by the end of the year.*

Vice Admiral William P. Mack, commanding Seventh Fleet, and Admiral Cooper, commanding Task Force 77, positioned carrier groups for air strikes from the Tonkin Gulf in response to NVA attacks. Other ships moved to support the increased tempo of carrier operations. Nine to 13 destroyers provided a screen to intercept North Vietnamese aircraft and torpedo boats. Destroyers and amphibious ships operated two northern search and rescue (SAR) stations, two positive identification and radar advisory zones (PIRAZ), a middle SAR station, and a southern SAR station which was later renamed Picket Station Alpha to counter the threat of North Vietnamese missile boats.1

Admiral Cooper concentrated air attacks in Route Packages 1 and 2 with the resumption of naval gunfire and bombing in North Vietnam on 7 April 1972. These struck at troop and logistic targets in the Panhandle, Finger Lake, and Mu Gia Pass regions through low clouds and the heavy fire of antiaircraft defenses. One or more carrier groups remained dedicated to direct air support in South Vietnam, primarily in MR 1, during the critical days of April and May. The Marine squadrons flew the same missions as the Navy fighter and attack squadrons to maintain air superiority, interdict lines of communication, and attack economic targets in support of political goals. Major attacks were flown against Vinh, Thanh Hoa, Haiphong, and Hanoi in 1972 by multiple aircraft employed in self-contained forces which were aimed at single target areas—the carrier-launched “Alpha Strikes.”**

All-Weather Attack

The previous winter, the USS Coral Sea arrived on Yankee Station with VMA(AW)-224 on board as part of Carrier Air Wing (CVW)-15. The “Bengals” were from the 2d Marine Aircraft Wing, Marine Corps Air Station (MCAS), Cherry Point, North Carolina. Their arrival in the Western Pacific Ocean was part of a scheduled six-month cruise. Lieutenant Colonel Billy R. Standley's unit consisted of 44 officers and 290 enlisted men, with eight Grumman A-6A Intruder all-weather bombers, three A-6Bs, and four KA-6D tankers. Initial operations were strikes against Ben Karai and Mu Gai Passes to interdict enemy convoys along the so-called Ho Chi Minh Trail in Laos. During the day the A-6s acted as pathfinders for other carrier flights, dropping impact and delayed-fuze bombs through cloud cover. At night the A-6s operated with the Air Force's “Commando Bolt” system using sensors and on-board moving target indicators to knock out trucks on the numerous feeder roads to the trail. For the NVA soldiers, this continuous attack brought mixed emotions. One recalled:

I could tell when we started to get close to the Vietnam border . . . . We could hear the rumble of bombings in the distance. Everyone stopped to listen to it—a dull continuous roar. A surge of fear went through everyone in the group I was traveling with. I was sick and half-starved and scared to death. But I was near home. It had taken six months to get here . . . .

The Coral Sea and VMA(AW)-224 were at Subic Bay, Philippines, on 30 March when Admiral Mack hurriedly recalled them to the Gulf of Tonkin to help stem the NVA invasion force. Lieutenant Colonel Standley and his squadron found themselves engaged in air strikes ranging the entire length of North Viet-

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*Carrier air wings (CVW) were task-organized mixes of aircraft and facilities on a self-contained floating airfield. Composition of CVW's during this period, as for example CVW-15 on the Coral Sea in 1972, included two squadrons of A-7 Corsairs, two squadrons of F-4 Phantoms, a Marine squadron of A-6s, and detachments of RF-8G Crusaders (photo), EKA-3B (tankers), E-1B (early warning), and SH-3G Sea Kings (rescue). Marine squadrons operated from three carriers in 1972: the USS Coral Sea (CVA 43), the Saratoga (CVA 60), and the America (CVA 66). Units that supported TF 77 included VMA(AW)-224, VMA(AW)-333, HMA-369, and detachments from VMG-1, VMG-2, and H&MS-15.

**An attack was launched in sequence beginning with reconnaissance, missile and antiaircraft artillery suppression, ordnance runs, and post-strike damage assessment aircraft.
The squadron flew Commando Bolt missions at night and attack missions near the DMZ during the day. In one instance, providing close air support to a firebase on 9 April in northern MR 1, Lieutenant Colonel Ralph E. Brubaker observed his “aircraft delivered their ordnance with deadly accuracy...”* When the smoke from the A-6s’ bomb load cleared, the firebase commander radioed the flight that they had “saved his position.”

In addition to these tasks, the Navy air group commander (CAG) assigned the squadron’s A-6s to destroy SAM and radar sites with “Standard Arm” AGM-78 missiles guiding in on radar transmissions from the targets. These flights continued until a new phase of air operations began on 8 May. Unlike previous air operations; targeting was at the theater level rather than the “Commander-in-Chief level.”** Air Force B-52s and naval tactical aircraft were used simultaneously against the same targets.

The new operations called upon VMA(AW)-224 to

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*Lieutenant Colonel Brubaker later commanded the squadron in 1972.

**Under the previous Rolling Thunder campaign, targets were selected for apparent political value within the considerations of “graduated response.” At times, selection and approval of specific missions were from The White House (Air War-Vietnam, pp. 251-252).
Marine Corps squadrons are capable of operating from ship as well as shore, and this is reflected in both training and equipment. An A-6 makes its final approach to a carrier deck under the control of the landing signals officer. The aircraft's tail hook is lowered.

Along the Ho Chi Minh Trail in March 1972, a Chinese-built Type 63 amphibious tank was destroyed by carrier air interdiction missions in the Panhandle region of Laos.

Photo courtesy of Capt Edwin W. Besch, USMC (Ret)
play a role in mining North Vietnamese waterways and harbors. On the direct orders of President Nixon, Operation Pocket Money sealed Haiphong Harbor. Admiral Mack stated that he was required by the President to drop the first mine "within seconds of nine o'clock because the President was going to announce the mining to the American public at that precise moment back in the United States." That bright, sunlit morning, three Marine A-6As and six Navy A-7Es thundered up the defended approach to Haiphong at low level. The aircraft overflew local junks on the sparkling waterway and skirted its shoreline. Air and gunfire strikes silenced Communist missile and antiaircraft positions for air crews who, according to Admiral Mack:

... had to know exactly where they were going and then drop mines in a very narrow channel regardless of fog, rain, or darkness. The drop had to be planned so that several aircraft could pick a point in the harbor area and drop their mines at 200 feet, microseconds apart, while going 300 to 400 knots.*

Captain William D. Cart, Jr., the bombardier-navigator in the lead Marine A-6A, established the critical azimuth for the Haiphong Harbor attack on 9 May. His aircraft dropped the first of 36 MK52-2 mines seconds after 0900 and completed the mission within the hour. For the main channel, 12 miles long and up to 250 feet wide, the U.S. forces used 75 mines over three minefields to block the waterway. Another 700 MK36 destructors were dropped in shallow water to deny passage to local shipping.*

After a three-day grace period before the mines were armed, 26 merchant ships remained trapped in Haiphong harbor. Air-dropped mines also closed the ports of Hon Gai and Cam Pha, north of Haiphong, and the ports of Thanh Hoa, Vinh, Quang Khe, and Dong Hoi to the south. After using more than 8,000 mines in the coastal areas and another 3,000 in inland waterways, the Navy believed it had stopped the flow of material into North Vietnam from the sea. With 80 percent of needed supplies entering the country this way, and the rest by rail, air interdiction was intended to bring both North Vietnam's economy and its military to a standstill.

Relief on Yankee Station came in July with the arrival of the USS America (CV 66). By then, VMFA(AW)-224 had flown 2,800 combat sorties with 4,500 hours of flight time and the loss of four aircraft and crews. With Operation Pocket Money, the Marine A-6s and crews played a crucial role in delivering ... one of the most significant blows to the enemy since the beginning of the Vietnamese conflict."*

More Support to the Navy—VMCJ

In the spring of 1972, with the increase in operations from the Tonkin Gulf, Lieutenant General Louis Metzger, the III MAF commanding general, tasked the 1st MAW commanding general, Major General Robert G. Owens, Jr., to provide electronic warfare support to Seventh Fleet and TF 77. This responded to a Seventh Fleet shortage of the specialized aircraft for this task and exercised the capabilities of 1st MAW's Grumman EA-6A Intruders. The Intruders of the VMCJ-1 "Golden Hawks" were well-enough equipped to allow American pilots to penetrate what was considered the third-heaviest air defense system in the world.** Electronic warfare permitted the interception, recording, and jamming of communications and radar systems used in North Vietnamese air defense. As a "combat-multiplier," the "soft kills" of interception or jamming aided other attack and fighter aircraft to enter defended areas for "hard kills" with ordnance. On 3 April, General Owens ordered the immediate deployment of a six-plane detachment from VMCJ-1 to NAS Cubi Point.*** Major John D. Carlton's detachment began missions in support of TF 77 on 7 April. Later in the month, on 20 April, four "Playboy" EA-6As of Detachment X, VMCJ-2, off the USS Saratoga (CVA 60), arrived as reinforcements.50 The resulting composite detachment of 221 Marines included crews and KC-130s from VMGR-152 and personnel and support equipment from H&MS-15.

Aircraft flew from Cubi Point to Da Nang Air Base for combat missions. Marines at Da Nang serviced the aircraft using fuel, revetments parking, and "ready room" space provided by the Navy's Fleet Air Reconnaissance Squadron (VQ) 1. Routinely, an early morning flight of four EA-6s and a KC-130 with additional flight crews departed the Philippines for Da Nang. Once there, pilots were briefed for morning sorties and the EA-6s were fueled and serviced. After briefings and inspections, the planes launched to support Navy and Air Force strikes over North Vietnam. Morning missions completed, they returned to Da Nang for fuel and replacement crews to fly in the afternoon. After completing these final missions, the aircraft landed

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*Special fuzing on a general-purpose MK82 500-pound aircraft bomb produced the destructor.

**After the Soviet Union and Israel.

***The detachment could still operate from carrier flight decks if required.
Admiral Cooper commented in April 1972 on the effective electronic warfare support TF 77 received from the Marines and their EA-6A aircraft, declaring that on "the five strikes they have supported, SAM guidance has been erratic and no aircraft have been hit." This was critical support in conducting carrier-air operations into Route Packages 2 and 3. Major General Leslie E. Brown, while 1st MAW commander, concluded:

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Operations continued at this pace through the October 1972 bombing halt, when the detachment’s mission shifted to passive surveillance of North Vietnam to obtain an electronic order of battle. The 18 December 1972 resumption of bombings found the detachment engaged again in active support of Navy and Air Force attacks on Hanoi and Haiphong. The NVA commander for air defense of Hanoi, Tran Nhan, recalled that when the bombs fell in December "radar screens for the nine missile batteries around Hanoi remained blank." At the ceasefire, the VMCJ-2 detachment returned to 2d MAW in North Carolina, while the VMCJ-1 detachment remained at Cubi Point supporting the Seventh Fleet. The composite detachment flew 2,496 combat sorties and 5,356 hours, losing one aircraft. Vice Admiral James L. Holloway III, commanding Seventh Fleet when the detachment returned to III MAF control on 18 February 1973, told the departing Marine pilots that their "unique role in electronic warfare provided invaluable support to the U.S. air striking forces which were penetrating a most formidable and sophisticated anti-air warfare environment."

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Another aircraft singular to the inventory of 1st MAW supported the Seventh Fleet, the newly arrived Bell AH-1J Sea Cobras of Marine Helicopter Attack Squadron (HMA) 369. Cobra gunships flew from amphibious ships to locate and destroy North Vietnamese sampans ferrying cargo from merchant ships to landing

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*Excluding KC-130 sorties of 1,440 hours and 568 combat flights.
sites along the coast of North Vietnam and attempting to avoid the mines of Operation Pocket Money.

The squadron was still forming and had just received its AH-1Js when the Spring Offensive occurred. A detachment was sent to the 9th MAB, and on 11 June 1972, Admiral McCain called upon General Metzger to provide gunship support to TF 77. The origin of the Marine Hunter Killer ("MarHuk") operation arose from the desire of Admiral Holloway and Admiral Cooper to ensure that the blockade of North Vietnam's seaward approaches was complete and that not a "grain of rice" made it ashore through the use of small, expendable boats which avoided the normal sea lanes. The use of carrier fixed-wing aircraft for this role diverted them from more critical interdiction missions. The solution rested in a more flexible, low-performance aircraft, the helicopter gunship. With the demise of Navy light attack helicopter squadrons, III MAF had the only immediate source of armed helicopters. General Metzger believed, however, that the value of stopping a sampan and its cargo was not worth the possible loss of a gunship. He also objected to depriving General Miller and the 9th MAB of both amphibious transports and gunships during a critical period. One consequence was the use of U.S. Army Cobras for helicopter escort during the amphibious landings.

Despite official reservations over the mission, General Brown warned the acting squadron commander, Captain Ronald G. Osborne, to be ready to go. As Major Dawson P. "Rusty" Hansen assumed command of the squadron on 15 June, it was loading on board ship to assume its role as the Marine Corps sea-based attack helicopter squadron. At the time, 18 officers, 99 enlisted men, and seven helicopters were squeezed into limited deck and hangar space on board the USS Denver. A troop transport, the ship lacked aircraft support and maintenance facilities. In fact, Admiral Holloway initially wanted a helicopter carrier (LPH) for this mission, but none was available because of 9th MAB combat and ready operations. Major Hansen and his maintenance officer, Captain David L. Caldon, overcame problems related to supply, missile countermeasure modifications, avionics support, ordnance handling, and the acquisition of Zuni 5-inch rockets not normally used by helicopters. Without doctrine or experience to go by, "innovation and imagination were the keys" for the self-styled "Mathuckers."

Major Hansen and Captain David C. Corbett, the operations officer, developed a concept of employment and techniques to accomplish the mission assigned by Seventh Fleet. This had two parts: the surveillance of merchant ships at the Hon La anchorage and the de-
struction of sampans running cargo ashore from these ships.* As the merchant ships were from the People's Republic of China, they were not to be attacked or threatened by the Marines. Rules of engagement kept the Marines at least 500 yards from the merchants and over the water at all times. Task Force 77 controlled daily sorties and coordinated air, gunfire, and rescue support. Over time, tactics evolved from a single morning and afternoon flight to random launches during the day. Finally, continuous night flights were conducted under illumination shells fired by accompanying destroyers. Because the AH-1J lacked radio cryptologic equipment, the use of radio silence was often mandatory to prevent and deceive North Vietnamese monitoring.22 Flying without radio communications at night over the open sea was one measure of the squadron's skills.

The North Vietnamese positioned 23mm, 37mm, and 57mm antiaircraft guns for air defense around the three-sided Hon La anchorage. These weapons and a variety of small arms hit nine helicopters in 140 firing incidents.23 Enemy fire from the anchorage and the beach increased threefold over the six-month period of operations, but "very early the enemy realized that if they fired on the AH-1Js they could expect Cobras, NGF, and/or fixed wing to engage them. This has made the enemy fire short unsustained bursts and thus reduced their volume and accuracy."24 Major Hansen and his relief, Major David L. Ross, believed the Sea Cobra's small profile, maneuverability, and fire power prevented losses.

The AH-1Js fought back with 20mm guns and rockets and also were able to "call for" naval gunfire and tactical air. Two air observers were assigned to the squadron as airborne controllers. Chief Warrant Officers James F. Doner, Jr., and James R. Owens. The two flying "gunners" soon had the squadron pilots trained in airborne spotting and the squadron consequently could hit targets with more than just their on-board weapons, giving the North Vietnamese cause not to arouse the airborne Cobras. During one flight Chief Warrant Officer Doner's Sea Cobra was fired upon by a 12.7mm machine gun. The pilot turned his nose towards the gun position and let loose a 5-inch Zuni...
ON YANKEE STATION

rocket. This was Doner's first experience with the Zuni, and "the pilot didn't tell me he was about to fire it." The rocket enveloped the Cobra with smoke and sparks from it's motor, rattling the aircraft, and had Doner yelling "We've been hit...!" 25

In August, the squadron moved to the USS Cleveland (LPD 7) and continued full-time combat operations. On 17 August, a concerted effort was made to ensure continued "permissive environment" for the gunships using carrier-based A-6s and Vought A-7 Corsairs and the fire support of seven naval gunfire ships, including the Newport News. After this, hostile ground fire slackened. Operating periods alternated with port visits through December, with a final move to the USS Dubuque (LPD 8).

When operations ended on 26 January 1973, HMA-369 had flown 981 combat sorties, destroying or damaging 123 sampans carrying an estimated 5,444 100-pound bags of rice. The merchant ships resorted to dumping cargo into the sea in waterproof containers in an effort to float cargo ashore. 26 A 1973 Center for Naval Analyses study concluded that the employment of HMA-369 released two destroyers and carrier aircraft otherwise required for this mission. 27 The Secretary of the Navy recognized that the squadron maintained a sustained pace of heavy combat operations during all types of weather, "responding gallantly to the almost overwhelming tasks of providing a threefold role of attack, supply movement interdiction, and constant surveillance of the enemy." 28 Major Ross also provided a fitting summary of the period when he stated that the squadron did more than just shoot-up sampans, "...most of all, the last six months of operations have given the AH-1J the opportunity to prove it deserves the designation of an attack helicopter..." 29

*Up to then, 62 strike and 109 combat air patrol missions had been conducted.
heavily defended airspace of the far North. This was their second flight of the day to cover air attacks of targets on the coast north of Haiphong. Both F-4Js were armed with four Sparrow AIM-7E-2 and four Sidewinder AIM-9D missiles, a combination mandated by the different capabilities of the two missiles.2 The tactical air commander and ground control intercept operator controlled the flight from the USS England (CG 22).

The previous day, 10 September, Lasseter and Cummings had been directed to intercept a North Vietnamese MiG aircraft. Contact was made, but lost due to equipment failure. The 11th was different. Launched at 1700, after a delay in link-up because of radio silence, the flight proceeded to meet an airborne KA-6 tanker to top-off with fuel for the mission. "Red One" was filled and "Red Two" was refueling when the strike force they were assigned to protect began its attack. There was not enough time to complete refueling, but Lasseter felt that his wingman had enough fuel for the mission and ordered Dudley to follow him to their assigned combat air patrol station. Prior to reaching the orbit point, Chief Radarman Dutch Schultz on the England gave Lasseter a flight vector to two MiGs 20,000 feet over Phuc Yen Airfield 10 miles northwest of Hanoi. With intermittent radar contact, the F-4s closed to seven miles of a pair of MiG-21 Fishbeds at 1,000 feet altitude. The aircraft sighted each other at about the same time, Lasseter now commenting that "we didn't surprise them." Dudley made the first call, "Tally-Ho! Tally-Ho! Twelve O'Clock. Keep going straight." The MiGs were flying one behind the other when Lasseter and Cummings locked-on to the lead aircraft. "OK, John, go boresight. Boresight now! Are we cleared to shoot?"

Lasseter launched two Sparrows which the silver-colored MiG dodged with an inside turn to gain altitude on "Red One." The second MiG reversed course and flew out of the engagement to the north. During the next four and a half minutes Lasseter and the MiG engaged in subsonic maneuvers below 1,000 feet over the Phuc Yen runway. Cummings stated that "ground fire and SAM warnings were continuous." Lasseter executed a "high yo-yo" to gain altitude and a firing position on his opponent as Dudley

*Because of the number of American aircraft over North Vietnam, visual identification and permission from a control agency was required before missiles could be used.
pressed the MiG. Lasseter launched two Sparrows and two Sidewinders during the melee but the MiG stayed low and evaded the missiles with continued left turns. Four minutes into the fight, Dudley was dangerously low on fuel and ready to disengage. Suddenly the MiG reversed his turn and gave Lasseter a clean shot at it: “Ha! We got him John! OK, splash one MiG-21!” Lasseter said later, “MiG-21 exploded and disintegrated.” Cummings commented that the Sidewinder “really did a job on that MiG. Everything aft of the cockpit was gone and what was left was in an almost-90-degree dive for the ground at about 500 feet.”

“Red One” and “Red Two” joined, and started back to the America when, according to Lasseter, a third MiG “made a run on my wingman.” Lasseter and Cummings fired their remaining Sidewinder, which got the MiG’s “attention and sent him scooting towards home . . . .” By now Dudley was low on fuel as both aircraft slowed and climbed to 14,000 feet to reach the safety of the sea. They also shortened their exit route, flying straight over Haiphong. Electronic countermeasure gear continued to emit SAM and AAA warnings as the North Vietnamese attempted to hit them with a “tremendous amount of groundfire.”

Combat flights over North Vietnam, and Route Package 6 in particular, were subject to the full range of enemy weapons. Antiaircraft artillery included these S-60 57mm antiaircraft guns, used in conjunction with the “Flap Wheel” radar, in batteries of six guns.
In the confusion that followed, "Red One" was damaged by a surface-launched missile. Unable to link up with a tanker and out of fuel, "Red Two" stayed with his leader. Crossing the beach, Lasseter's aircraft was burning and its engine flamed out, forcing him and Cummings to eject "feet wet" into the Tonkin Gulf. Dudley and Brady, now out of fuel, and with possible battle damage to their Phantom, also ejected over the sea. The England launched a Helicopter Combat Support Squadron (HC) 7. "Big Mother" SAR helicopter to pick up Lasseter and Cummings; Dudley and Brady were recovered by the USS Biddle (DLG 21).

This was the only MiG kill of the war by a Marine Corps unit and an engagement with mixed results.* A second section of F-4s was diverted to the MiG fray, some 60 miles from assigned air cover positions on the coast, resulting in no fighter cover for the strike. Another consideration raised later by Captain Cummings was that "...the North Vietnamese used our aggressiveness and desire to bag a MiG to lure us into a trap consisting of AAA, SAMs, and MiGs."33

The air war for VMFA-333 continued to the end of the year, with the squadron flying armed reconnaissance missions during the bombing halt above the 20th Parallel in October 1972. By this time, the winter weather restricted the squadron to instrument-controlled bombing through cloud cover. The America's air commander ordered VMFA-333 to conduct attack missions with the resumption of bombing on 18 December 1972. In this month Major Lasseter took command of the squadron after Lieutenant Colonel Cochrane was shot down and injured, and Major Lasseter brought the squadron home at the end of its tour in March 1973.

As the Marine Corps is the landward extension of the U.S. Navy, Marine air is the landward continuation of naval airpower, demonstrated by the Marine units with the Seventh Fleet during the Spring Offensive. In 1972, these Marine electronic warfare, attack, and fighter aircraft flew their share of Task Force 77's 65,285 sorties flown over North Vietnam and 35,730 sorties over South Vietnam that helped to push the Communists further toward signing a ceasefire agreement.34

*Two other Marines had shot down enemy aircraft during the war, flying as exchange officers with the U.S. Air Force: Captain Doyle D. Baker on 17 December 1967 with the 13th Fighter Squadron and Captain Lawrence G. Richard on 11 August 1972 with the 585th Tactical Fighter Squadron.
CHAPTER 13
Other Marine Activities

Leadership, Morale, and Readiness—Beans, Bullets, and AvGas: Logistics
Thunder from the Sea, Fire from the Sky—War in the Ether

Leadership, Morale, and Readiness

At this time, commanders in FMFPac and III MAF had to address the intangible, as well as the physical, needs of their organizations: concerns related to the leadership, training, and morale of the Marines who made up the tactical units. The conduct of Marines who formed these units, in effect reflected the situation in contemporary American society. In June 1971, this condition was described by military historian and commentator Colonel Robert D. Heinl, Jr., USMC (Ret), as "... the lowest state of military morale in the history of the country."

From his experience as a division- and a corps-level commander, Lieutenant General Louis Metzger recalled, "personnel problems were a major challenge during this period." One squadron executive officer and commander, Major Kent C. Bateman, concluded that "anti-war feelings of the period and the drug culture mindset presented a leadership dilemma that was imponderable." Some officers and noncommissioned officers, faced with this situation, appeared to avoid the career risks of leading these Marines for less demanding assignments. A company-grade officer replied this was not quite accurate, "We were doing the best we could with the people and equipment on hand."

Actually, many of these personnel problems stemmed from the fact that the Marine Corps, unable to call up Reserves, was forced by declining recruitment to take in substandard entrants. Once enlisted, certain of these disadvantaged young men found it difficult to meet military standards and were either unwilling or unable to accept military discipline. Marine historian Allan R. Millet observed that this was accepted by the Marine Corps at the time "as a calculated risk to keep up end strength."

A later study by Headquarters Marine Corps provided the following statistics on Marine manpower at the start of the decade: In 1971, 21 percent of all recruits were discharged prior to completion of the 78-day period of recruit training; 70 percent of enlisted Marines in this period, privates through corporals, were 21 years of age or less, and 49 percent of this group acknowledged some illegal drug usage. Only five percent of the "first termers" eligible to reenlist did so, indicative of service conditions at the time. This lack of quality manpower was also reflected in disciplinary problems which resulted in 587 general courts-martial and 6,655 special courts-martial. In 1971, desertions numbered 11,852 and unauthorized absences, 33,174, or at the rates of 56.1 and 166.6 per 1,000 respectively.* In 1973 alone, 10,043 Marines were discharged prior to completion of obligated service. Recruiting standards were lowered to the point that, by this same year, only 46 percent of incoming recruits held high school diplomas. Within the ranks of the lowest four enlisted grades of private through corporal, high school graduates composed 50 percent of ground combat units, 51 percent of support units, and 65 percent of aviation units. One division commander reported his trooper's average general classification test (GCT) scores as 85, with 100 and above being required for training most technical skills.**

Serving overseas when their country appeared torn by antiwar dissension, Marines went to a bob-tailed division on Okinawa or an air wing spread over the Pacific from Hawaii to Japan. Officers and men served 12-month tours "unaccompanied" by families, on Okinawa alongside more generous U.S. Army and Air Force family policies. Efforts to reconstitute the 3d Marine Division and the 1st Marine Aircraft Wing did not appear to be the highest priority to those on "the Rock," as Okinawa was known. Facilities and equipment there showed the effects of the previous six years of war and the vagaries of the defense budget that sometimes appeared unable to afford basic necessities on a cyclical basis. For some Marines the local culture also seemed strange and unintelligible.

As Marine Corps units departed Vietnam in 1971, those men with less than nine months overseas were reassigned within III MAF to finish their overseas tours. They arrived with an outlook and disdain for garrison living that negated the experience they brought as

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*Rate per 1,000 equals number of incidents divided by average enlisted strength x 1,000. Length of unauthorized absences historically averaged 10 days.

**GCT scores are roughly similar to Intelligence Quotients (IQ): a GCT of 100 is believed to indicate average learning and reasoning ability.
"combat veterans." The resultant high turnover of personnel and the demands of additional duty and fleet augmentation programs adversely influenced combat effectiveness and unit cohesion. Racial conflict, alcohol and drug abuse, and criminal activity that placed demands on the small-unit leaders beyond their capacity were other manifestations of institutional stress.  

As commander of FMF Pacific, Lieutenant General William K. Jones conducted a survey that examined perceptions by Marines of duty assignments, the legal system, racial conflict, drug use, and leadership. It reached a number of conclusions, among them the observation that:

... throughout all these areas of major concern are negative attitudes or indications which appear repeatedly. Principal among these was the distrust of the young Marines for the "establishment"—representing authority, one's superiors, the chain of command, the legal structure.

Leadership was believed to be weakest at the lowest level, the point at which conflicts appeared and where "... the apparent intolerance and insulation of the white SNCOs [represented] the focal point of the generation gap" and the communications breakdown. This was not so much in routine official duties, but rather in the inability to establish personal trust and confidence during informal contacts with the young Marines. A factor in this was the loss of experienced staff noncommissioned officers who had been made temporary officers in the middle-1960s.

The poll went on to conclude that drug use in the lower ranks was abetted by a "no-squeal" syndrome, race relations often broke down in black perceptions of inequities. Article 15 nonjudicial punishment was believed to be imposed arbitrarily, and, in leadership relations, respect did not equate to trust among ranks. General Jones instituted a number of command programs to get at the essence of these social problems and took steps to get the Marine Corps to do the same,
with limited results.* While General Leonard F. Chapman, Jr., then Commandant, approved the FMFPac programs, he "was reluctant to take action since he was soon to leave office and preferred to leave it to his successor," General Robert E. Cushman, Jr. The conflict of legitimate civil rights reforms and disruptive demands for "black power" was lessened as earlier steps taken by the Marine Corps to address this national social issue began to take effect. At Headquarters Marine Corps, the Equal Opportunity Branch and the CMC Advisory Committee for Minority Affairs continued efforts to remove inequities from the system. By late 1971, 1.2 percent of Marine officers and 12.1 percent of Marine enlisted personnel were black Americans. Personnel distribution policies placed

17.97 percent of these Marines in combat arms and 16.18 percent in support and service occupational specialties. It was in the FMF combat and support units that unrest was greatest. Racial incidents continued, but were now being recognized as not isolated but rather symptomatic of something more than poor discipline. In September 1971, the 3d Marine Division targeted disruptive behavior by blacks in the base mess halls by prohibiting "power salutes." This resulted in 34 Marines being charged with violations of the division order. Further efforts were made to suppress provocative posters, banners, and clothing deemed to contain a racial content. The year ended with 116 racial incidents reported to Headquarters Marine Corps, which commented that the apparent increase in assaults and incidents of racial tension was a result of a "more responsive and sensitive" reporting system. By April 1972, racial incident reporting and "salt and pepper" personnel reports (a unit's strength broken down by "race" groupings) were further revised and standardized by Marine Corps order. The human re-

*Note this situation appear unique to the 1971-1973 period, it should be noted that one of General Jones' contributions was an FMFPac newsletter, The Marine Leader, which included previous leadership challenges and solutions featured in his "Base Plate McGuirk" series, first published in the Marine Corps Gazette in the late 1940s.
lations program had begun within III MAF units. Inspection trips by the Commandant’s Advisory Committee for Minority Affairs and the Department of Defense reported that the effort in the Western Pacific was overcoming both discrimination and the resultant black backlash.12

To counter divisive elements, small-unit leaders at all levels had to establish conditions which promoted what FMFPac called “job satisfaction.” Nothing was too insignificant if it impacted adversely on this, particularly in barracks, the mess halls, and enlisted clubs. The commands emphasized unit identity, recognition of abilities and initiative, and an equitable promotion system. Leadership, as always, was a full-time, demanding affair. It was a tough time, particularly in garrison, for small-unit leaders: one second lieutenant recalled that the human relations program, while not a substitute for effective leadership, “was an attempt to allow Marines to better understand one another.”13 Another platoon leader, Second Lieutenant Mark B. Pizzo, remarked that officers and staff noncommissioned officers “were open to constant threats and reprisals.”14 As III MAF soldiered on, one result of the termination of the Vietnam War was the start of a self-conscious internal review of mission, force structure, manpower, and quality.15

Rear Admiral Wycliffe D. Toole, Jr., and Task Force 76 had to resolve “disturbing racial and disciplinary problems both ashore and afloat.” Admiral Toole went on to state that he appreciated the “unifying efforts” of Marines Major General Joseph C. Fegan, Jr., Brigadier General Edward J. Miller, and Brigadier General Paul G. Graham, to resolve these matters: “Without their constant personal attention . . . the situation could have easily escalated into disruptive physical violence.”16

Despite units’ internal turmoils these same Marines and sailors responded automatically to the contingencies of 1972 with the speed and intensity of previous generations of U.S. Marines, particularly during the critical period of April and May. This desire to participate was reflected in shipboard activities and the intense competition to be assigned to any duties contributing to combat efforts. As Marine Lance Corporal Donald L. Samuels of BLT 1/9 expressed it, unit pride gave “us a little something extra and makes us work harder.”17 Samuels’ First Sergeant, Robert S. Ynacay, agreed that morale was highest afloat “when the Marines got to participate in U.S. Navy duties with the members of the crew.”18

On troop transports, jungle-utility-clad Marines appeared on deck with shorn heads, cleaning individual weapons “without being told to.” Aviation crews pulled together as teams to meet the back-breaking demands of wartime sortie rates. Lieutenant Colonel Eddie R. Maag, the MAG-12 logistics officer, maintained that when a private-first-class aircraft mechanic “will spend his own buck on a flashlight, and hold it in his mouth to ready a $15 million Phantom for the next mission, you have to be impressed.”19 The knowledge that there was a war on and Marines had a part to play in it was a major factor in restoring self-image to America’s “first to fight.”20 It helped sustain them while “boring holes in the ocean” as members of the so-called “Tonkin Gulf Yacht Club” and while experiencing the day-to-day sameness of forward-area living. As Thomas Hobbes stated in 1651, “War consisteth not in battle only, or the act of fighting; but in a tract of time, wherein the will to contend by battle is sufficiently known.”21

Individual and unit quality as combat units, rather than as social beings or groupings, was measured in areas such as readiness, as well as in discipline and morale. Throughout this period, III MAF units conducted individual and unit training to ensure readiness for combat and contingency operations. Such training was more than the simple repetition of skills. It included physical and mental conditioning, instilling unit cohesion, sharing doctrine, ensuring material readiness, and providing leadership. Transition from peacetime to combat was not difficult for most naval and aviation units, as their normal duties are demanding in themselves. But even they had something to learn from the experience of rapid deployment to combat with ensuing around-the-clock operations. Observed Lieutenant Colonel James C. Brown, commanding VMA(AW)-533, there were shortfalls “regarding readiness inspection procedures in garrison” that only became apparent in the field.22 For the amphibious units oriented towards ground combat, landing exercises and additional preparations were conducted at the Zambales Training Area, Philippines. Once at sea, readiness preparation was conducted at the small-unit level with what was called on-the-job training (OJT) for anything that could be accomplished within an in-
dividual ship's plan of the day. Most units took advantage of the opportunities made available during operations to accomplish needed improvements in readiness. This included rehearsals for landings, communications exercises, and general quarters drills.

Maintaining combat readiness for 70 separate units, on 20 different ships, with more than 6,000 men for months at a time was especially difficult. Training of ground units on board ship is difficult under the best of conditions; the demands of combat readiness did not make it easier. The aviation units were already geared to a high tempo of operations that did not allow, for them at least, this benefit. The long periods afloat and ashore were tempered by the proximity of fighting in Vietnam. These operations reversed the normal relation of staff to line, with headquarters personnel being more actively involved in the conduct of the war and the riflemen and platoon leaders standing by. First Lieutenant Laurence W. Rush, a HMM-165 pilot, noted that they had to content themselves with monitoring the radios and listening to Air Force and Navy pilots flying "in country." “We listened to strafing and bombing runs, Army chopper strikes, rescue ops and Arc Lights—that was B-52 high-altitude bombing strikes. We listened and thought that soon we were going to get our chance.”

Training had functional and institutional aspects in readiness and discipline. Inspections on ship served as a measure of both physical and psychological preparedness, sharpened by the proximity of the fighting.
The end of the supply pipeline was at the point material was needed for use in the conduct of a unit's mission. At right, SSgt Francis N. Trauffer, the 9th MAB's supply chief, issues camouflage clothing to a Marine replacement on board the USS Blue Ridge.

**Beans, Bullets, and AvGas: Logistics**

Under the existing military assistance programs, direct replacement of "service unique" equipment was authorized to the South Vietnamese. To the U.S. Marine Corps, this meant the reconstitution of equipment and supplies lost in combat, as well as programs to upgrade the VNMC's potential. In addition to advisory personnel, additional material support was provided to the Vietnamese through the Marine Advisory Unit. To Colonel Dorsey, most significant was the emergency air shipment that brought 105mm howitzers, trucks, individual and crew-served weapons, gas masks, and other "combat essential items to Da Nang Air Base less than six days after the initial combat loss report had been received in Washington, D.C." The logistics advisor, Major Stanley G. Pratt, had direct telephone contact to Headquarters Marine Corps by way of the headquarters command center. Supported by the Assistant Commandant of the Marine Corps, General Earl E. Anderson, the Installations and Logistics Division sent timely replacement of unit equipment lost in the spring battles. The close rapport between the Vietnamese Marines and the U.S. Marines paid dividends, as direct flights of replacement stocks were made into Da Nang before the start of the Lam Son counteroffensive.

General Metzger, as III MAF commander, was involved in a number of support activities cutting across the spectrum of the missions of deployed units on land, sea, and air. Units of the 3d Marine Division and 1st Marine Aircraft Wing units also required an extensive logistics support effort. During 1972, this III MAF logistic "tail" stretched from ships in the Tonkin Gulf and depots in the jungles of Thailand back to the Philippines, Taiwan, Japan, and even to the United States. The wing commander, Major General Leslie E. Brown, felt his major achievement during the period was the coordination of the deployment of tactical and support units to combat in Southeast Asia to several far-flung sites. The cost to the 1st MAW alone in terms of maintenance, ordnance, and fuel was significant. The 9th MAB commander, General Miller later wrote that the 3d Marine Division commander, Major General Joseph C. Fegan had "turned his division 'inside-out' in terms of personnel and equipment" to support III MAF.

There was a need to maintain all manner of equipment at workshop (3d echelon) and depot (4th echelon) level at locations where facilities and support agreements did not exist. The continued readiness of the 9th MAB, MAG-12, and MAG-15 depended upon their organic maintenance programs for machines and Marines, not an easy task on a constantly moving amphibious transport or at a remote airfield. Material readiness depended on maintenance of equipment and on the availability of parts for repair, and replacement of items that could not be serviced on ship. Restricted space, diminished facilities, diverse organizations, and constraints due to contingencies also were factors to overcome. General Miller's units with Task Force 76 lacked the extensive facilities in Vietnam that existed prior to 1972. Units at sea were dependent upon Vice Admiral William P. Mack's Underway Replenishment Group for the supply of fuel, oil, lubricants, and food from supply ships. Moreover, combat-essential parts or equipment took up to 14 days to arrive from Okinawa and the Philippines.

When battalions and squadrons arrived in the Vietnam theater in April, they were able to take advantage of the U.S. Army's departure from Vietnam to replace or obtain supplies and equipment informally from stocks being left that would otherwise have gone to the South Vietnamese. While common equipment could be "scrounged" from Navy, Army, and Air Force...