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THE MARINES IN VIETNAM 1954-1973

An Anthology and Annotated Bibliography

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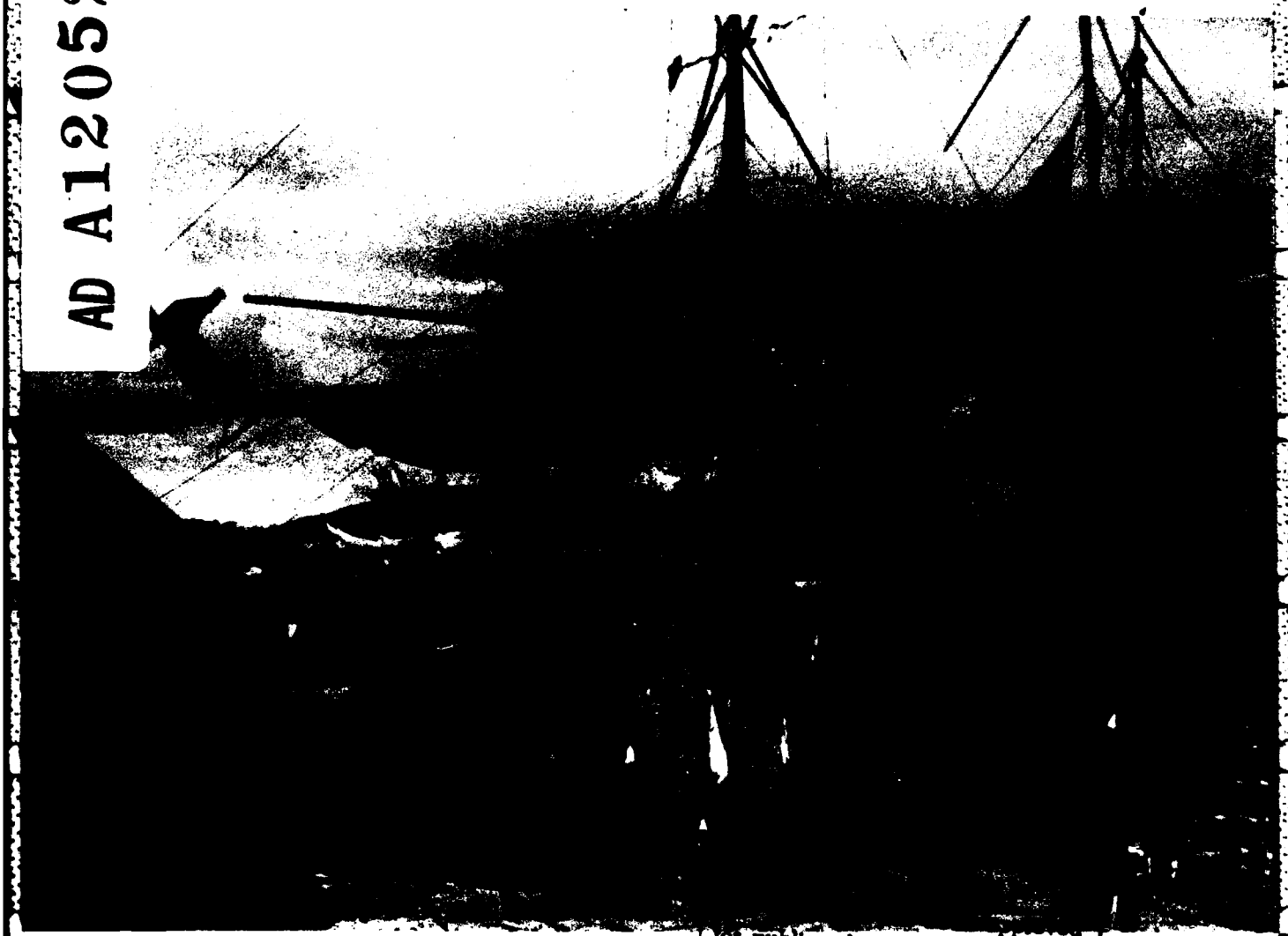

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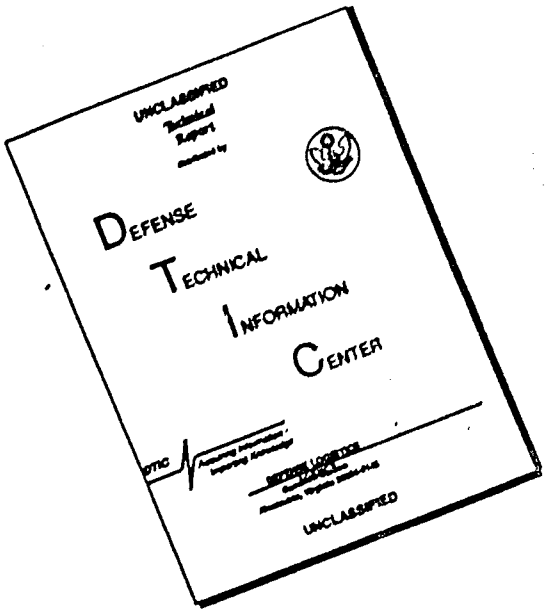

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Cover Photograph: Marine CH-53 helicopter hovers over Outpost Hatchet during Operation Pickens Forest (August 1970). In the foreground are communications antennae and poles bearing the flags of the United States and South Vietnam; the men are American and South Vietnamese Marines.

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HEADQUARTERS, U. S. MARINE CORPS

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DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, D. C. 20380

28 Jan 1974

FOREWORD

The purpose of this anthology of articles from the U. S. Naval Institute Proceedings, Naval Review, and Marine Corps Gazette and the accompanying bibliography is to serve as an interim reference for use within the Marine Corps and for answering inquiries from other government agencies and the general public concerning U. S. Marine activities and operations in Vietnam until the Historical Division completes its own monographs.

The 13 articles composing this anthology provide a general overview of Marine involvement in the Vietnam War. The first six give a relatively chronological development of this participation from one lone Marine advisor in 1954 through the buildup of III Marine Amphibious Force which reached its peak in 1968 to the final withdrawal of most Marine forces in 1971 and the subsequent Easter offensive and counter-offensive of 1972. The second group of articles is arranged topically and concerns aviation, logistics, civil affairs, fire base support, and other subjects of significance to the Marine effort. Also included is an annotated bibliography prepared by the Vietnam writers in the Histories Section covering other Vietnam articles that appeared in these publications from 1954 to mid-1973. Although recognizing that many fine articles pertaining to Vietnam have appeared in many other periodicals, the History and Museums Division because of limitations of time and resources confined its attention to these three aforementioned publications.

I wish to thank the editors of the Proceedings, Review, and Gazette for their support and cooperation in permitting the reproduction of these articles. These publications made a significant contribution to the record of the Marine Corps' participation in the Vietnam War by originally publishing these articles. Reproducing these pieces in our anthology will yield a further dividend to this contribution.

E. H. SIMMONS
Brigadier General, U. S. Marine Corps (Ret.)
Director of Marine Corps History and Museums

Reviewed and approved:

PREFACE

The opening article of this anthology concerns itself with the beginnings of the Marine involvement in Vietnam following the Geneva Accords in July 1954, which ended the French War with the Communist Viet Minh and resulted in the de facto partition of the country at the 17th Parallel. Colonel Victor J. Croizat, who served as the first U. S. Marine advisor to the South Vietnamese Marine Corps, discusses the origins of both the South Vietnamese Navy and Marine Corps. Although authorized in October 1954, the first headquarters of the Marine Corps was not established until the following May. By this time, the French political and military influence throughout South Vietnam was waning and the American influence increasing. Thus Colonel Croizat concludes that the South Vietnamese Marine Corps, unlike the Navy (which had been established by the French in 1952), has been "almost wholly a creation of the United States ....The initial consolidation of Corps units into two battalions, the later formation of a three-battalion regiment, and the eventual evolution of the brigade structure all owe their realization to the U. S. advisory effort." However, he also notes that "...the decisions that have brought them to their present status were made by the Vietnamese themselves."

A new phase of Marine participation began in 1962, six years after Colonel Croizat's departure in 1956. Following President Kennedy's decision in January 1962 to expand the U. S. advisory effort with the establishment of the U. S. Military Assistance Command, Vietnam (MACV), the first Marine tactical unit deployed to Vietnam in April. Marine helicopters belonging to Marine Medium Helicopter Squadron 362 (HMM-362), commanded by Lieutenant Colonel Archie J. Clapp, lifted off the deck of the USS Princeton (LPH-5) and landed at the Soc Trang base located in South Vietnam's Mekong Delta. Organized into a task element code-named SHUFLY, the Marine helicopters provided support to the South Vietnamese units combating the Viet Cong. Lieutenant Colonel Clapp in the second article appearing in this series describes the exercises of his squadron in a counter-insurgency environment.

In the next four articles, Brigadier General Edwin H. Simmons, presently the Director of Marine Corps History and Museums, who served in various Marine command and staff billets during two tours in Vietnam, treats the buildup of Marine forces from the landing at Da Nang of the 9th Marine Expeditionary Brigade in March 1965 to the final withdrawal of Marine forces in 1972.

General Simmons in his first article traces the evolution of the 9th Marine Expeditionary Brigade into the III Marine Amphibious Force (III MAF). Lieutenant General Lewis W. Walt's III MAF by April 1966 consisted of two Marine divisions and a reinforced aircraft wing and was responsible for all U. S.

operations in I Corps Tactical Zone, the five northern provinces of South Vietnam. During this period, the Marine role expanded from a limited defensive mission for the Da Nang Air base in early 1965 to a fully balanced strategy involving base defense, offensive operations, and pacification. General Simmons discusses the resulting developments in command relations and the so-called differences between the "Army" and "Marine" strategies. During 1966 the Marine effort was hampered by two events. The first was the political upheaval caused by the removal of General Nguyen Chanh Thi, the I Corps Tactical Commander. The second event was the infiltration through the Demilitarized Zone (DMZ) dividing the two Vietnams of regular North Vietnamese (NVA) battalions and regiments into northern Quang Tri Province. The 3d Marine Division deployed north into Quang Tri and Thua Thinh Provinces to meet this new challenge in Operations HASTINGS and PRAIRIE while the 1st Marine Division assumed responsibility for the three southern provinces of I Corps (Quang Nam, Quang Tin, and Quang Ngai).

In the second of his four articles, General Simmons continues the narrative of Marine operations through 1967. He discusses the controversies over the "McNamara Wall," the M-16 rifle, and the CH-46 helicopter as well as covering the major operations and the continuing buildup. By the end of the year, Marine strength in Vietnam had risen from approximately 68,000 in January to over 77,000. In his concluding paragraph, General Simmons declares:

> There was reason for optimism as 1967 ended. The enemy had elected to make the northern provinces of I Corps Tactical Zone the main battle area and each time he had attempted to take the offensive he had been badly beaten. With the movement of U. S. Army troops into I Corps, an acceptable troop density had been achieved. Pacification efforts...appeared to be regaining momentum.

Quoting General Westmoreland, General Simmons calls the year 1968 the year of decision. The year opened with the enemy's TET offensive with strong strikes at Da Nang, Hue, and just south of the DMZ. In countering this sudden conflagration, U. S. forces in I Corps reached 52 battalions (24 Marine and 28 U.S. Army). General Simmons comments that Lieutenant General Robert E. Cushman, Jr., General Walt's successor, was commanding the equivalent of a field army. In his article, General Simmons discusses the expansion of Allied forces, command relationships and changes, as well as describing the big battles such as the defense of Khe Sanh. He concludes with the observation that the first half of 1968 was marked by the greatest combat activity of the war but that after August the enemy "gave up on his pursuit of military victory through large-scale attacks and reverted to small-unit attack and harassment with mortar and rocket fire." By the end of the year, the Marines along with their South Vietnamese allies were making

significant progress in pacification and the Marines began reducing some of their forces. The number of Marine infantry battalions declined from 24 to 21 at year's end. III MAF strength was down from a peak of 85,250 in September to approximately 81,000 at the end of December.

In his last article, General Simmons portrays the retraction of Marine forces from Vietnam following 1968. The year 1969 opens with substantial Marine forces still conducting large operations while supporting the South Vietnamese pacification efforts. By the end of June, however, President Nixon had announced the first redeployment of American forces. Beginning with the departure of the 9th Marines, the entire 3d Marine Division was out of Vietnam by the end of the year. Throughout 1970 and early 1971, other Marine units left Vietnam in succeeding increments. On 14 April 1971, III MAF headquarters departed for Okinawa, leaving behind the 3d Marine Amphibious Brigade. Two months later, the brigade was deactivated. Residual Marine forces in Vietnam consisted of approximately 500 Marines, most of whom were performing essentially liaison, advisory, staff, and guard functions. Approximately 60 officers and men were advisors with the Vietnamese Marine Division which played a large role in the defensive actions incidental to the NVA 1972 Easter offensive and in the later South Vietnamese counteroffensive. During this period, Marine helicopters from the 9th Marine Amphibious Brigade on board Seventh Fleet shipping supported the Vietnamese Marines. Two Marine fixed-wing aircraft groups, MAGs-12 and -15, returned to Vietnam and supported the South Vietnamese forces. MAG-12 operated from Bien Hoa and MAG-15 later redeployed to Nam Phong in Thailand.

Lieutenant Colonel Gerald H. Turley and Captain Marshall R. Wells, who both served as advisors to the Vietnamese Marines in 1972, in their article describe how the Vietnamese Marines met the challenge of the North Vietnamese Easter offensive. Vietnamese Marines fought bravely and retreated in good order following the North Vietnamese onslaught against the South Vietnamese defenses in the north beginning on 30 March. By 1 May, the North Vietnamese had captured Quang Tri City and the South Vietnamese had established a new defensive line to the south on the My Chanh River. The South Vietnamese Marine Division manned these defenses and was one of the spearheads in the South Vietnamese counteroffensive on 28 June. On 15 September, Marine forces recaptured Quang Tri City's Citadel and organized resistance within the city collapsed. Lieutenant Colonel Turley and Captain Wells conclude their articles with this apprasial of their Vietnamese counterparts: "Vietnamese Marines, short in stature, rich in courage and full of determination, stood tall in the eyes of all Marines."

In contrast to the chronological organization of the previous series, the next six articles are arranged topically. They touch upon such specialized aspects of the Marine war in

Vietnam as amphibious doctrine, the fire base/tactical concept, Marine civil affairs, logistics, and Marine aviation.

General Keith B. McCutcheon, an outstanding Marine aviator of three wars, covers the entire spectrum of Marine aviation in Vietnam from the introduction of Lieutenant Colonel Clapp's squadron in 1962 to the redeployment of Marine aviation which began in 1969-70. During the Vietnam War, General McCutcheon served as Commanding General, 1st Marine Aircraft Wing in 1965-1966 and returned to Vietnam to command III Marine Amphibious Force in March 1970. He was slated to become Assistant Commandant prior to his illness which caused him to leave Vietnam in December 1971 and to die in July 1972. In this comprehensive article, General McCutcheon describes the buildup of Marine aviation; the building of the Chu Lai SATS (Short Airfield for Tactical Support) field; the introduction of new types of aircraft into the war; and helicopter and fixed-wing operations. He presents an even-handed account of the command and control questions over Marine air which eventually led to the adoption of the "Single Manager Concept." Under this latter concept, the Seventh Air Force became the "single manager" of all U. S. air in South Vietnam although III MAF retained operational control of its aviation assets. General McCutcheon declared:

> The system [single management] worked. Both the Air Force and the Marines saw to that....MACV as a whole received more effective air support, and III MAF continued to receive responsive air support from its own units.

Amphibious doctrine was another sensitive area and required extensive cooperation between the Marines and the other services. Lieutenant Colonel Peter L. Hilgartner, who served with the Seventh Fleet Special Landing Forces as well as on staff positions at Headquarters Marine Corps and the Pacific Fleet, discusses the application of amphibious doctrine to the Vietnam War. He concludes that the doctrine as outlined in NWP-22B/LFM-01, Doctrine for Amphibious Operations, has proved adequate for the Vietnamese situation although requiring certain modifications; the major one being that ComUSMACV was "accorded extensive control and...allowed to prescribe virtually every important aspect of the employment of amphibious forces, from specifying the mission to delineating the characteristics of the amphibious objective area."

Although less controversial than doctrinal questions, logistics was an important factor in the war. Colonel James B. Soper, who served as a logistics officer on the Fleet Marine Force Pacific (FMFPac) staff, discusses the development of the Marine logistic effort in the Western Pacific from the first landing of the 9th Marine Expeditionary Brigade in 1965 to the Expeditionary redeployment of forces in the latter stages of the war. He concludes:

> At the beginning, it was the operational and logistic status of FMFPac that permitted the early employment of its units. In the end, it was the same capabilities that permitted FMFPac to be redeployed at the earliest and to re-establish itself as the country's force in readiness.

Another facet of the Marine war in Vietnam was its pacification effort. Lieutenant Colonel Donald L. Evans, a civil affairs officer in Vietnam who later headed the Civil Affairs Branch at Headquarters Marine Corps, describes the Marine campaign to deny the enemy the vital support of the people. He declares that such tactics as the Combined Action Program, Civic Action, and the I Corps Joint Coordination Council served to extend South Vietnamese governmental control over the populated areas in the heavily populated coastal regions of I Corps.

The Marines also innovated new techniques for combating the enemy's regular forces in the more conventional war along the Demilitarized Zone. Major Robert V. Nicoli, who served with the 3d Engineer Battalion in northern I Corps, describes the introduction the fire support base in the DMZ area of operations during the summer of 1968. The fire base concept of operations provided the 3d Marine Division flexibility and mobility--"Secured by the infantry, built by the engineers, and manned by the artillery, the fire support base stands ready to support the infantry as it expands its operations into enemy territory."

In the last article of this anthology, Commander Frank C. Collins, Jr., USN, who served on the staff of the Naval Support Activity, Da Nang, discusses the role of that agency in furnishing logistic support of Marine forces in I Corps. The Naval Support Activity provided the Marines with common-type support as well as operating all of the ports in the five northern provinces of Vietnam. In addition, its Seabees were responsible for much of the construction effort in support of the Marines. The author notes that the motto of the Naval Support Activity was "They shall not want." The Marines of III MAF did not lack for combat logistic, maritime, and construction support.

The annotated bibliography (Part II of this publication) was prepared by the Vietnam writers in the Histories Section of the Historical Division. Captain Robert H. Whitlow compiled and annotated those entries for the period 1954-1965; Major Gary L. Telfer did the same for the period 1966-68; Major Charles M. Johnson was responsible for the period 1969-73. Mr. Jack Shulimson completed the review and editing of all the entries for format and content. Corporal Isaac C. Moon, Jr., under the supervision of Chief Warrant Officer Joseph R. Fitzgerald completed the difficult and tedius task of typing the entries in their final form. Mr. Henry I. Shaw, Jr., Chief Historian, Colonel Herbert M. Hart, Deputy Director for Marine

Corps History, and Brigadier General Edwin H. Simmons, Director of Marine Corps History and Museums, reviewed the entries before publication.

The History and Museums Division has made no attempt to edit or change the articles that appear in the anthology. For economy's sake, this is a facsimile reproduction; no effort has been made to correct typographical or any other errors that may appear.

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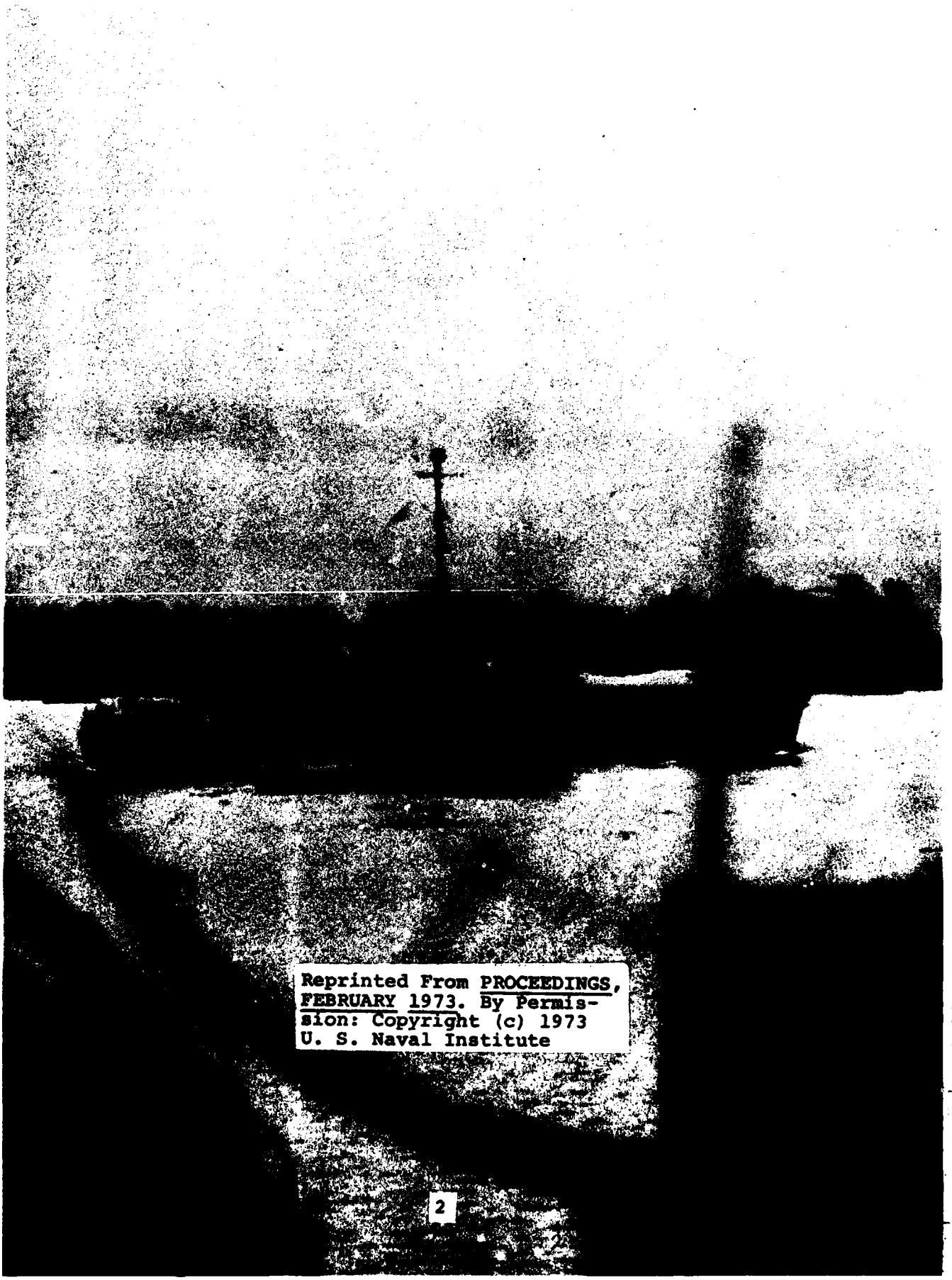

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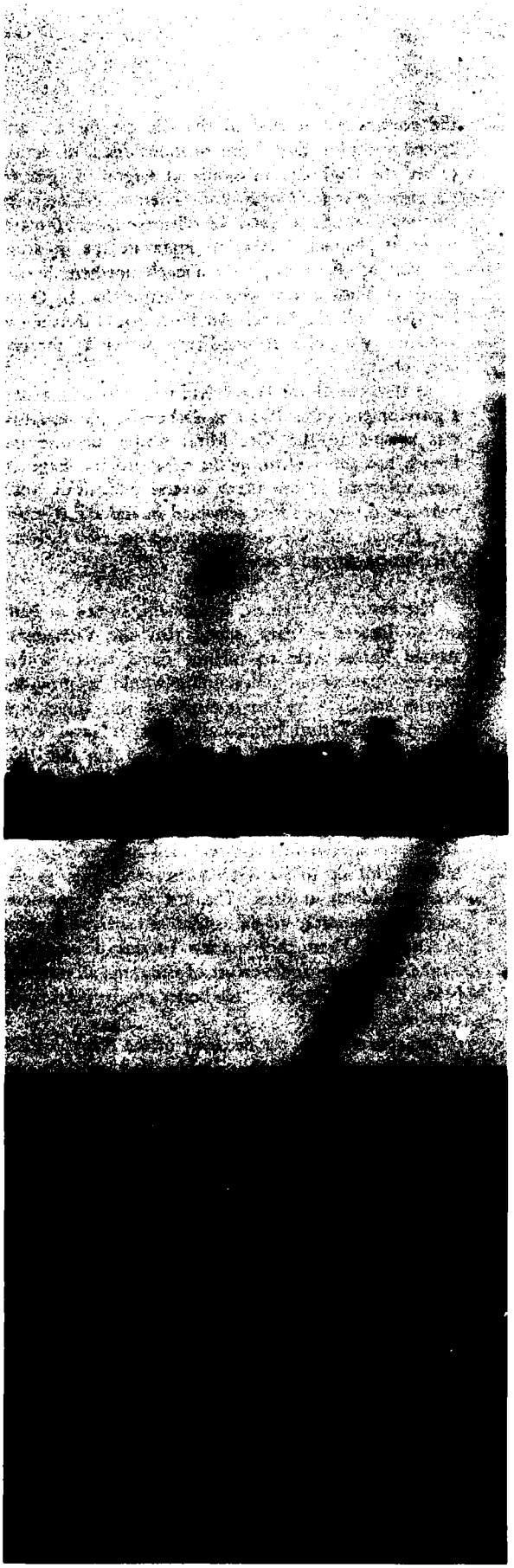


Vietnamese Naval Forces: Origin of the Species

By Colonel Victor J. Croizat,
U. S. Marine Corps (Retired)

Until the end of France's Indochina War in mid-1954, the U. S. Military Assistance and Advisory Group headquartered in Saigon was primarily concerned with providing logistic support to the French Union Forces. Not until mid-1955 did the responsibility for the organization, training, and equipping of the Vietnamese Armed Forces pass from the French to the Americans.

This transition, inherently difficult, was complicated by the massive movement of Union forces and civilian refugees from North to South Vietnam, by the uncertainty in the South Vietnamese military force levels that the United States would support, and by the need to build up, from a zero base, an organic logistic support capability within the Vietnamese Armed Forces.

Because of the dramatic impact of these complexities, historical records of the period focus on major issues. The fortunes of lesser organizations such as the Vietnamese Navy and Marine Corps were determined

When, in 1956, the Vietnamese Navy was at last strong enough to be master in its own house, Vietnamese-commanded LSILs, such as this one seen on the Mekong River, carried out the coastal and inland waterways patrol mission which, until then, had been commanded by French naval personnel.

largely by individual initiatives and were little documented. The article that follows seeks to remedy this deficiency by presenting authoritative data which comes from personal observations and from letters and reports written by the author at the time when he was an active participant in the events described.

The failure of the French in yet another negotiation attempt in early 1947 confirmed that the break occasioned by the Viet Minh attacks against the French in Hanoi the preceding December was final. The French then undertook to parallel their military operations with a political offensive in which the government of Ho Chi Minh would be countered by a new government formed in the South under the former emperor Bao Dai. Ultimately, Vietnam, Cambodia, and Laos would be brought into the French Union as Associated States to enjoy many of the prerogatives of sovereign nations, including their own separate armed forces.

Bao Dai, then living in Hong Kong, was not disposed to accept the French invitation unless the Vietnamese themselves were also to offer some support. But Bao Dai had few adherents; a major pacification effort in the South would be needed to gain him support. At the same time, the French had planned an offensive for late 1947 to destroy the Viet Minh in the Tonkin highlands. An immediate difficulty arose when part of the French forces had to be redeployed to Madagascar. This caused the offensive to be scaled down, and even though four battalions were brought up from the South, the action proved inconclusive. Moreover, the withdrawal of forces from the South aggravated the security situation there.

It was evident, at the beginning of 1948, that an Expeditionary Corps of 108,000 men could not maintain stability in the South and pursue the enemy in the North at the same time. To economize forces, the French began a system of fortified posts in the South, a system that later was repeated and improved upon in the North. In addition, they began to recruit Vietnamese into auxiliary units. These actions eased some of the difficulties.

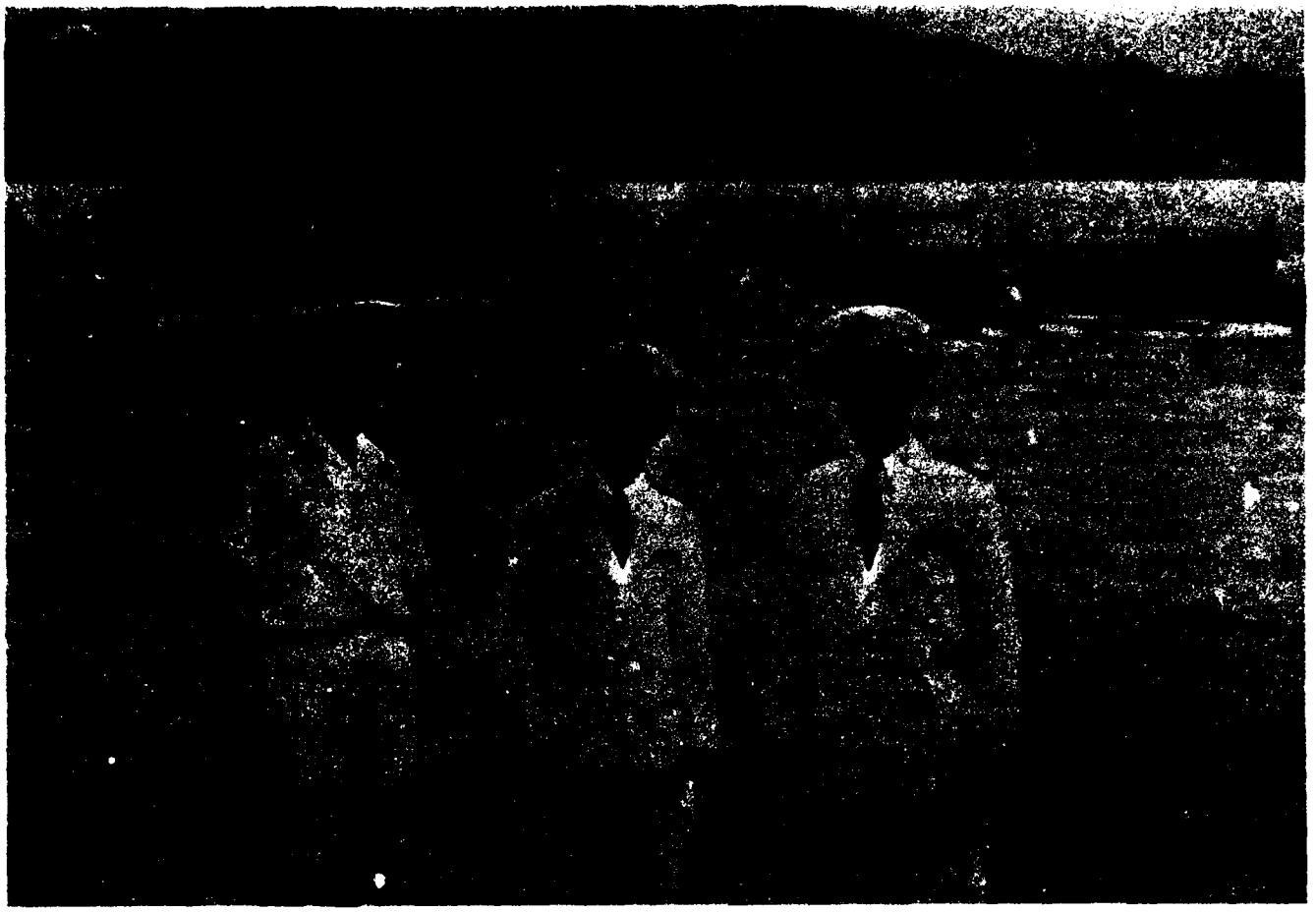
By early 1949, the Expeditionary Corps had reached a strength of 122,000. In the North, however, the situation remained precarious since the Viet Minh still had not been hurt critically. In the South, in contrast, the pacification effort appeared increasingly effective, and arrangements were at last in order to return Bao Dai to Saigon.

Fearful of upsetting these arrangements, the French civil authorities refused to release military forces for an all-out effort to destroy the Viet Minh in the North before they could link up with the Chinese Communist forces then approaching the border. In Paris, however, the government reacted to the Chinese menace and agreed to deploy more forces to Indochina. This action caused the High Commissioner in Saigon to agree to the offensive in the North. But the reinforcements were diverted to the South, and the offensive failed to materialize as planned. Further to aggravate the situation the Viet Minh struck at the French northern border garrisons. Their attacks were so effective that, by October 1949, only the French Air Force could deliver the 500 tons of supplies required each month by the isolated posts.

As 1949 ended, the French had succeeded in creating a government under Bao Dai. Otherwise the initiative was passing to the Viet Minh simply because the French had too few troops to safeguard too large an area, subjected to too many diverse difficulties. Such were the conditions that prevailed in Indochina when the French and Vietnamese agreed to establish the Vietnamese Armed Forces.

The Franco-Vietnamese Agreement, signed in Paris on 30 December 1949, stated that the Vietnamese Armed Forces were to include naval forces whose cadres, organization, and training would be provided by the French Navy. In response to this agreement, Vice Admiral Ortoli, commanding French Naval Forces in the Far East, proposed in April 1950 that the Vietnamese Navy initially include only river units. Meanwhile, the Navy Ministry in Paris was drafting directives on the organization of the Vietnamese Navy. These appeared in July and included authorization for training, for up to six Vietnamese candidates, at the Naval Academy at Brest. The first three Vietnamese, selected haphazardly for the assignment, arrived in Brest in October. There they quickly became disheartened by the wintry seas and weather of Britanny; all resigned before the end of the year. No better progress was made elsewhere in 1950.

In February 1951, the Secretary of the Navy in Paris expressed astonishment that nothing had been done to bring the Vietnamese Navy into being. The Admiralty in Saigon replied that under direction of the High Commissioner, all questions relating to the Vietnamese Navy were the concern of the Permanent Military Committee. This body had yet to meet, and in any event it was charged only with making preliminary studies. Naval headquarters in Paris nevertheless insisted that action be taken. Accordingly, in April 1951, Admiral Ortoli forwarded to Paris a development plan for the Vietnamese Navy. This plan proposed that two naval assault divisions under French command be formed promptly in 1951. It further proposed that the construction of a recruit training center in Vietnam be undertaken that same year; officer and enlisted spe-



When Premier Diem placed Lieutenant Commander Le Quang My (center) in command of Vietnamese Naval Forces, My replaced all French officers—including the Commandant of the Vietnamese Naval Schools, Nhatrang, (right)—with Vietnamese. Thus, Captain Jean Recher (left), the last head of the French naval mission, and his 225 Frenchmen, were relegated to the same "advisory" status as the 120 U. S. MAAG personnel then in the country.

cialist training of Vietnamese was to take place in France. The recruit center was to be opened in 1952. Then, in 1953, a number of river flotillas would be organized. This would be followed in 1954 by the transfer of four YMS-type minesweepers to the Vietnamese, and lastly, in 1955, a squadron of patrol planes would be activated.

In May, the Secretary of the Navy advised that he was prepared to accept these proposals with the stipulation that the time schedule be advanced and provision made to include seagoing forces. To this end he announced the intent to transfer a 600-ton *Chevreuil*-type escort to the Vietnamese in 1952, and to begin construction in France of two second-class escort ships of the E. 50 class (1,250 tons), and four minesweepers of the D1 class (365 tons) for the Vietnamese government. He also instructed the Admiral in Saigon to give the highest priority to the development of a budget for the Vietnamese Navy covering the costs of the recruit training center, the recruitment of Vietnamese cadres, and the necessary initial naval construction.

While this activity was taking place in naval circles, the Permanent Military Committee held its first meeting on 1 May 1951. Beginning with this session, it quickly became evident that the Vietnamese government, under the urging of its French advisors, and in particular that of General de Lattre, looked to the organization of its armed forces as a single entity, inevitably to be dominated by the Army. The Navy, greatly disturbed by this attitude, protested to the Minister of the Associated States, stating that it opposed the idea of a navy being nothing more than a service element of the army.

The French Navy was otherwise divided, since Admiral Ortoli in Saigon disagreed with Paris over the development plans for the Vietnamese Navy. The Admiral insisted that the Vietnamese Navy should begin only with river forces, and the addition of seagoing units should not be considered at least until 1954. This view eventually was to prevail, but the debate was to continue for some time.

On 6 March 1952, the Navy of Vietnam was officially formed and, on 12 July 1952, this young "student sailor" was a member of the first company to undergo recruit training at Nhatrang's boot camp.

On 15 August 1951, the French Naval Mission was accredited to the Vietnamese government, and in November the work on the recruit center began. During this same period the French also organized an officer training course on board one of their gunboats for candidates recruited from among former students of the Hydrography School in Saigon. The Vietnamese Navy was in a fair way to becoming a reality.

Early in 1952 the Commander of the French Naval Forces in the Far East and the High Commissioner agreed upon a modified plan for the organization of the Vietnamese Navy. This plan provided for the opening of the recruit center at Nhatrang in 1952 as previously proposed. The two naval assault divisions that originally were to have been organized in 1951 were to be activated in 1953, when it was also proposed to organize a flotilla of 30 river boats and to effect the transfer of one division of three YMSs. The Vietnamese naval staff was to be organized in 1954; in addition, a coastal patrol flotilla was to be formed by integrating the boats of the customs service into the navy.

While this proposal was being reviewed, Imperial Ordinance No. 2 appeared on 6 March 1952, officially establishing the Navy of Vietnam. Then, on 1 May, the organization of the Vietnamese Armed Forces General Staff caused a reorganization of the French Military Mission. Incident to this reorganization on 20 May, a "Navy Department" was created within the mission charged with "commanding, administering, and managing the units of the Vietnamese Navy and directing its development." In July, Admiral Ortoli presided at the formal opening of the recruit training center at Nhatrang.

One of the most pressing concerns of the Navy Department within the French Mission was to obtain a firm and agreed-upon plan for the development of the Vietnamese Navy. This was becoming ever more difficult as the number of agencies interested in the subject multiplied and the divergent views of Paris and Saigon were not reconciled. To resolve the issue, the Department requested the Franco-Vietnamese High Committee to address the question. But, before the Committee could act, the Secretary of the Navy in Paris outlined a new long-range program that purportedly reflected the views of the Ministries of Defense and of the Associated States in Paris, and of the Admiralty in Saigon. This program provided for the progressive development of the Vietnamese Navy by the organization of units and the acquisition of ships and craft in two phases.

The first phase, beginning in 1953, called for the implementation of the previous Saigon proposal for the organization of two naval assault divisions and one river patrol flotilla of 30 boats, plus the transfer of three YMSs. The year following, two other naval assault divisions were to be formed. The second phase involved the addition of units as follows: 1955—two minesweepers; 1956—two coastal patrol ships; 1957—two coastal patrol ships; 1958—one minesweeper and one escort ship; 1959—two coastal patrol ships, one escort ship, and two amphibian patrol plane squadrons.

As this program was being formulated, the Franco-Vietnamese High Committee met and, at its session of 7 July 1952, agreed that the Vietnamese Navy should be charged with river police and coastal surveillance missions. By coincidence, the development plan prepared by the Committee in conformity to these missions duplicated the Phase I Program announced by the Secretary of the Navy. A plan acceptable to all had finally appeared.

In July 1952, 350 Vietnamese apprentice seamen had been recruited—50 of whom were to become petty officers. Then, in September, nine Vietnamese Navy officers, representing the first group of locally trained personnel, entered the service. This group was followed by a second class of officer candidates which, like the first, was recruited from among former students at the Hydrography School in Saigon. Additionally, five candidates selected by competitive examination were sent to Brest to enter the Naval Academy there in October.

Progress was being made, but the Navy Department within the French Mission suffered from a shortage of French personnel both to serve as cadres for the Viet-

namese Navy and to permit the Department to carry out its many duties—not the least of which was to avoid being absorbed by the Army. The Department managed to carry on its work, however, and, as 1952 ended, the Vietnamese Navy was a reality; nine Vietnamese officers and 150 men were receiving in-service training on board various rivercraft of the French Navy.

The 1952 plan for the development of the Vietnamese Navy, so long in gestation and only recently agreed upon, was once again thrown open to debate in February 1953. That month, the governments of France and Vietnam decided to increase the Vietnamese Army to 57 light infantry battalions to provide added means for offensive operations. Since these operations were to extend into the deltas and along the coastal areas of the country, an increase in the Vietnamese Navy was also deemed necessary. The matter was referred to the Permanent Military Committee which recommended a supplement to the naval program for 1954 to include the activation of three river flotillas (each composed of LCTs, LCMs, LCVPs, sampans, and river patrol boats), and the addition of one LST and four LSSLs. This augmentation, if adopted, would require the Navy to reach a total strength of 2,700 men by the end of the year, with the United States to provide military assistance to make up the material shortages.

The supplementary program was forwarded to the Franco-Vietnamese High Committee where it was discussed throughout the remainder of 1953. Incident to these discussions, the question of whether the Army or the Navy should control the river flotillas was raised for the first time. It was at that time that the new commander of French Naval Forces in the Far East, Vice Admiral Auboyneau, proposed the organization of a Marine Corps.

On 10 April 1953, the first unit of the Vietnamese Navy, still with French cadres but under its own flag, was activated. This was the Cantho Dinassaut (naval assault division) comprising one LCM (command), two LCMs, and two LCVPs. At the end of the same month, the French assigned LSIL-9033, under French flag, to the training center at Nhatrang. Later, in June, the Vinh Long Dinassaut (naval assault division) was activated.

These activations and assignments raised the "flag" question, and debate over this issue became sufficiently lengthy and acrimonious to suspend all transfers of ships and craft, other than rivercraft, to the Vietnamese for the remainder of 1953. Among the French, some wanted Vietnamese ships to fly a "tricolor" jack; others wanted the Vietnamese commission pennant to include the national colors of both countries; and still others wanted to devise a completely new flag for the French Union. The Vietnamese simply held that their ships should fly Vietnamese national flags and commission pennants.

While these arguments waxed and waned, the Navy Department of the French Mission decided that it would be prudent to recruit the additional Vietnamese needed to bring the Navy up to the strength of 2,700 men. The Franco-Vietnamese High Committee had not yet agreed to the supplementary naval program for 1954—nor would it ever—but the Navy Department considered that the training of additional Vietnamese was fully warranted, particularly since enlisted specialists were henceforth to be trained at Nhatrang, where the charter of the recruit training center had recently been expanded.

As 1953 drew to its close, it was painfully evident that the Vietnamese Navy had progressed very little in the course of four years. The upset, early in the year, in what had momentarily appeared as a firm development plan had not been resolved, nor were there any central guidelines to follow. The French Navy staff and the Vietnamese Armed Forces General Staff each had its separate program, and the Vietnamese Navy appeared destined to continue to live a hand-to-mouth existence. A further handicap of the Vietnamese Navy was the joining of all of the Vietnamese military services under a single general staff and single budget in June 1953. This was most serious for the infant Vietnamese Navy, for its strength of only two dinassauts, corresponding to about 1/200th of the strength of the Vietnamese Armed Forces, made it appear so inconsequential that it was largely ignored by the Vietnamese government. As a result, the fortunes of the Vietnamese Navy depended upon actions taken at subordinate echelons—actions which tended to be influenced far more by local events than by any long-range plans. There was, therefore, an urgent need to convince the government that even a small navy could not be organized without a reasonable plan that extended several years into the future and provided the basis for orderly procurement, construction, recruitment, and training of personnel.

The Franco-Vietnamese High Committee eventually acknowledged this need, and, at its session of 15 February 1954, adopted the concept of a five-year naval development plan. The Committee also considered that personnel of the Navy should be designated as Fleet personnel to man seagoing ships, large rivercraft, and service units, and as Marine Corps personnel to man river patrol craft and dinassauts, to form commandos and a one-battalion landing force. The Committee further recommended a substantial development program that by 1958 would have provided the Vietnamese Navy with four dinassauts, nine minesweepers, six escort ships (two of 600 tons and four of 2,000),

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Until Lieutenant Commander My became head of the Navy, it was commanded, for two months in mid-1955, by the Deputy Chief of Staff of the Vietnamese Armed Forces, Brigadier General Tran Van Don, seen here with My and Captain Recher, right. Eight years later, Tran Van Don would be one of the leaders of the coup that overthrew President Diem.

four LSMs, four LSSLs, seven LCTs/LCU's, 16 coastal patrol boats, eight river gunboats (250-ton), five coast patrol ships, and one hydrographic survey ship. This program was concurred in by all agencies concerned and was forwarded to the Vietnamese and French governments in March 1954 for approval.

Shortly before, on 11 February 1954, the flag issue having been resolved, the French transferred three YMSs to the Vietnamese. This was followed in March by the transfer of two LCUs and Dinassaut 22, and in August by the transfer of Dinassaut 25. By the time the Indochina War ended in July of that year, the Vietnamese Navy consisted of four Naval Assault Divisions, three YMSs, two LCUs, the Naval Schools at Nhatrang, and two receiving stations—one in Saigon and the other in Haiphong. The personnel strength also had increased. In January 1954, the Navy mustered 22 officers and 684 men; by July, this had grown to 45 officers and 975 men. On 30 October 1954, the Vietnamese Navy had 131 officers and midshipmen, and 1,353 enlisted men. Of these, 86 midshipmen and 233 enlisted men were in schools in Vietnam and France.

With the end of hostilities and the withdrawal of the French from the North, the Vietnamese general staff considered that the five-year plan submitted in March by the Franco-Vietnamese High Committee had to be modified. Accordingly, Major General Nguyen Van Hinh, Chief of the General Staff, recommended on 27 October that, by the end of 1954, the Vietnamese Navy include a shore establishment comprising a naval headquarters and receiving station in Saigon; the naval schools at Nhatrang; river bases at Mytho, Cantho, Vinh Long, Faifoo (Hoi An), Tam Ky, and Quang Ngai; boat repair facilities at Hue, Mytho, and Cantho; and Marine Corps facilities necessary to the Corps' growth. The operating forces were to include four dinassauts, two escort ships (600-ton), two coastal patrol ships, two LSMs, three YMSs, two LSSLs, four LCUs, 16 coastal patrol boats, and three LCU repair craft. The Marine Corps was to consist of a headquarters, four river companies for duty with the dinassauts, and a one battalion landing force.

General Hinh further recommended that in 1955 the shore establishment be expanded and improved upon as necessary (to include a Navy communications facility), and that three coastal patrol ships, three AMSs, two LSMs, and one hydrographic survey ship be added to the Navy. He also proposed the addition of three commando and six light support companies to the Marine Corps. To meet these programs, he anticipated

that the personnel strength at the end of 1955 would have to reach 160 officers and 3,300 men in the Navy, and 90 officers and 3,730 men in the Marine Corps. The French cadres required for such an establishment were listed as 60 officers and 370 petty officers of the Navy, and 20 officers and 165 NCOs of the Colonial Army.

The Marine Corps appeared in these proposals because there had been a number of specialized formations among the native units organized by the French during the war which, although in the Army, were intended to work with the river and coastal forces of the Navy. This association had been found to be particularly important in the case of river forces and all such units normally had an infantry element attached. The inventory of these special units also included one 420-man "amphibious battalion" equipped with 37 M29Cs (*Weasels*) and 13 *LVTs*.

The formalization of these relationships, an issue of discussion since the preceding year, was achieved on 13 October 1954 when a government decree signed by Ngo Dinh Diem set forth articles as follows:

"ARTICLE 1. Effective 1 October 1954 there is created within the Naval Establishment a corps of infantry specializing in the surveillance of waterways and amphibious operations on coast and rivers, to be designated as:

"The Marine Corps"

"ARTICLE 2. . . . .

"ARTICLE 3. The Marine Corps shall consist of various type units suited to their functions and either already existing in the Army or Naval forces or to be created in accordance with the development plan for the armed forces.

"ARTICLE 4. These units will be of the following types:

River Companies
Landing Battalion
Light Support Companies
Commando
Naval Assault Divisions

"ARTICLE 5. . . . .

The proposal endorsed by General Hinh and collaborated in by the French, like all of its predecessors, was destined to be overtaken by events. It also marked the last time that the future of the Vietnamese Navy would be discussed solely between the French and the Vietnamese. Thenceforth, U. S. officers would enter into the deliberations. Eventually, Americans were to replace the French in advisory functions, but just when and under what circumstances this was to be done remained unclear, since, as General Hinh indicated, French cadres were to be present in numbers in the Vietnamese Navy through 1955.

At the time of the 1954 Geneva Agreements, the United States had 342 military personnel serving in the Military Assistance and Advisory Group, Indochina. This group, whose strength could not be exceeded by virtue of the Agreement, had been primarily concerned with "assistance" to the French in the nature of equipment and supplies. Its "advisory" function had related only to the use of U. S. equipment and had had nothing to do with operations or training. These last domains had been and remained entirely the province of the French. Indeed, Chief, MAAG, had obtained agreement to the assignment of U. S. liaison officers to the French Commander-in-Chief's headquarters in Saigon only in early 1954—but none had yet been assigned when the war ended.

In the final stage of the war the French Expeditionary Corps in Indochina totalled 235,721 men (this figure includes 2,460 female military personnel, 380 of whom were nurses). Of this total, 115,477 were Indochinese serving in either regular or auxiliary units. In addition, there were 257,130 men in the armed forces of the Associated States. The vast majority of the Asian contingents in both cases were Vietnamese. Thus, when the Indochina War ended, the Vietnamese Armed Forces exceeded 200,000 men. Further, while the French were withdrawing some forces from Vietnam, in a process that was accelerated when the Algerian rebellion broke out in November 1954, there was ample evidence that the French intended to retain a presence in the country. This was evident in the expansion of the naval station at Tourane (DaNang), in the great improvement to the air facility at Cap St. Jacques (Vung Tau), and in the construction of an oil storage tank and liaison aircraft strip at Cam Ranh Bay—all of these being developments that took place after the end of the war. Further, the new Commander of French Naval Forces Far East, Vice Admiral Jozan, made the point informally on several occasions that it would be desirable for France to retain military bases in Vietnam in order to better permit it to meet its obligations under the Manila Pact, signed in September, which ushered in the Southeast Asia Treaty Organization.

Ngo Dinh Diem did not encourage these French views. On the contrary, he pressed for the complete independence of South Vietnam and called for an early withdrawal of the French Expeditionary Corps. This was to have a major impact upon the Vietnamese

In November 1955, Lieutenant General John W. O'Daniel, Chief, MAAG, Vietnam, and Colonel Croizat, the author, met with President Ngo Dinh Diem at the Presidential Palace in Saigon.

Armed Forces for they had been receiving their support directly from the French, who in turn were using resources provided by the United States. With the cessation of hostilities, U. S. military assistance to the French in Indochina ceased, and title to material previously provided reverted to the United States. The United States was thus compelled to move in and take an active role in the interests of the Vietnamese military establishment.

In late 1954, the United States announced its willingness to support the Vietnamese Armed Forces at a level of 90,000 men. This offer was strongly opposed in Saigon and, in early 1955, the figure was revised to 100,000. Then, later in the year, when it became evident that the end of the Indochina War had not brought an end to the fighting in the South, the figure was raised to 150,000 where it remained until the expansion of the U. S. support effort in 1961.

U. S. involvement in the support of the Vietnamese Armed Forces inevitably entailed involvement in matters of organization and training that previously had been exclusive French responsibilities. As an initial step toward ensuring the necessary coordination, officers of the U. S. MAAG and of the French Mission were brought together in late 1954 into an Advisory, Training, and Operations Mission (ATOM).

On 15 January 1955, the U. S. member of the Senior Team, ATOM, proposed missions for the Vietnamese Navy and Marine Corps that included limited amphibious operations, river and coastal patrol, minesweeping, fire support, and logistic support for military forces. The force levels in ships and craft recommended, however, were far less than those required for the missions. It was little more than a valiant effort to try and fit the Vietnamese Naval Forces into the 3,000-man ceiling imposed under the overall Vietnamese Armed Forces strength of 100,000 set by the United States at that time.

Shortly after this proposal appeared, an agreement was reached with the French, wherein Lieutenant General O'Daniel, U. S. Army, Chief, MAAG Vietnam, would assume responsibility for the organization and training of the Vietnamese Armed Forces under the overall authority of the French High Commissioner. At that time ATOM was reorganized and redesignated as the Training Relations and Instruction Mission (TRIM). The new organization, whose name was believed to be less likely to recall Hiroshima to sensitive Asians, consisted of 225 French and 120 U. S. personnel. The Navy Division of TRIM, initially composed of three U. S. and two French officers, was headed by a French Navy captain who also commanded the Vietnamese Navy and was the senior naval officer in the French Mission. Under the circumstances, the advisory function of the U. S. officers was scarcely onerous. The Navy Division of TRIM nevertheless prepared a new plan for the development of the Vietnamese Naval Forces which was forwarded by Chief, TRIM, to the Minister of Defense on 28 April 1955. This plan, like its ATOM predecessor, was concerned primarily with meeting the 3,000-man ceiling. The force levels thus continued to be unrealistic in terms of the missions contemplated and did little more than reveal that since the end of the war, the French had transferred to the Vietnamese Navy one LSSL, two LSILs and two LCUs to add to the three YMSs and two LCUs on hand at the end of hostilities. Further, the plan envisaged in the case of the Marine Corps, a crippling cut, to 1,000, from the 2,373-man strength that existed on 31 December 1954. This, admittedly, was in part compensated for by charging the amphibious battalion of 700 men intended for service with the Navy to the Army ceiling, but this could not be accepted as anything like a permanent arrangement.

As these events were happening, the Vietnamese were becoming increasingly anxious to assume full control over their armed forces. The date of 30 June 1956, which the French and Americans agreed would allow time for the organization and staffing of the headquarters and service elements needed by the Vietnamese naval establishment to operate on its own, became too remote for the Vietnamese.

As a first measure, a headquarters for the Marine Corps was established on 1 May 1955. This made it possible to focus the U. S.-inspired effort to bring together the varied units of the Marine Corps into a two-battalion force with the ultimate view of progress-

ing on to a regiment. Chief, TRIM announced that the Vietnamese Navy would become independent on 31 December 1955, but, on 30 June 1955, Premier Diem assigned the Deputy Chief of Staff of the Vietnamese Armed Forces additional duties as the Naval Deputy on the General Staff. This, in fact, made Army Brigadier General Tran Van Don the head of the Vietnamese Navy. The arrangement was short-lived; on 20 August, the Premier appointed Lieutenant Commander Le Quang My as the Naval Deputy and Commander of the Vietnamese Naval Forces. Commander My promptly replaced all French personnel in command assignments in the Vietnamese Naval Forces with Vietnamese personnel. The French retained command only at the naval schools, but this, too, was terminated on 7 November 1955. When this rapid sequence of events ended, the French found themselves with nothing more than advisory functions comparable to those of the U. S. personnel. French personnel released from command assignments moved to TRIM.

This development, harmonizing relations and functions between U. S. and French personnel, came at the time when the support ceiling for the Vietnamese Armed Forces was raised to 150,000 men. This brought the Vietnamese Naval Forces authorized strength to 4,000, of which 1,837 were to be Marines. As a consequence of these events and the accelerated reduction of French naval forces in Vietnam, the expanded Navy Division at TRIM, in collaboration with Vietnamese officers, undertook a detailed review of the whole of the Vietnamese naval establishment. This, together with a survey of the French naval resources remaining in-country that could be transferred to the Vietnamese, provided the basis for the preparation of two plans for the Vietnamese naval forces.

The first of these was a reorganization plan intended to use only in-country resources to provide an immediate capability for carrying on the coastal and inland waterways patrol missions being relinquished by the French. The plan was also to provide the Navy with the essentials of the command, administrative, and logistic support systems needed for it to become truly independent. Additionally, it was envisaged that the Navy should have the means of furnishing limited transport for the Army, and should have a modest amphibious force that eventually would take its place with the Army's parachute regiment as an element of the country's general reserve.

The reorganization plan prepared on the basis of the foregoing considerations provided for a Navy of 2,845 officers and men organized into three components. The Shore Establishment was to include a naval headquarters and service elements; four coastal commands with headquarters at Saigon, Nhatrang, Quinhon, and Tourane (DaNang); the naval schools at Nhatrang; four river force bases at Mytho, Cantho, Long Xuyen, and Vinh Long; and three boat repair facilities at Saigon, Cantho, and Tourane. The second component, the Sea Force, was to consist of five PCs, three YMSs, two LSSLs, two LSMs, and ten coast patrol cutters. The third component, the River Force, was to include five dinassauts, each comprised of six LCMs, four LCVPs, and five outboard motor boats; four LSILs; five LCUs (one a repair craft); and two YTLs. The Marine Corps, totalling 1,835 officers and men, was to be formed into a headquarters and two infantry battalions.

This reorganization plan provided for a naval establishment aggregating 4,680 officers and men or 680 above the authorized ceiling. Moreover, the five PCs in the Sea Force represented an increase of three PCs above the approved force levels. These modest augmentations were considered reasonable in the light of the considerably expanded responsibilities of the Vietnamese Navy and were retained in the plan forwarded to the Chief of Staff of the Vietnamese Armed Forces on 1 November 1955 as a TRIM plan.

Master Sergeant Theem, USMC-trained, and wearing the traditional campaign hat of the Marine drill instructor, squares away a South Vietnamese Marine recruit's M-1 rifle.

On 7 December 1955, Lieutenant General Le Van Ty, the Chief of Staff of the Vietnamese Armed Forces, convened a conference at his headquarters to discuss naval matters. He first gave his approval to the reorganization plan, thereby authorizing the excess of 680 men beyond U. S. support ceilings. His action also constituted agreement for the consolidation of the Marine Corps into a two-battalion force, this being detailed later in a document signed on 21 December 1955 by Lieutenant Commander My.

General Ty then turned the discussion to the future of the naval forces. In response, TRIM officers presented a two-year development plan that had been prepared on the assumption that the reorganization plan would be approved. This development plan called for an expansion of the naval forces to 9,000 men by the end of 1957 in order to provide for a Coastal Patrol Force and a River Force which, together with the required shore facilities, could deny coastal and inland waters to the Viet Minh and to other illicit traffic. In addition, there was to be a Transport Force to provide lift for an army regiment or permit the conduct of amphibious operations at up to regimental level. The Marine Corps was to be increased to a three-battalion regiment to constitute, along with the Parachute Regiment of the Army, a general reserve for the Armed Forces available on immediate call. Finally, the various headquarters and logistic agencies for the operating forces would be expanded or created as necessary.

The development plan concluded that to carry out the missions contemplated, the minimum forces required by the end of 1957 for the Coastal Patrol Force were four DEs, ten PCs, and 27 Motor Patrol Boats (CGUB type); the River Force was to include five dinassauts (each with nine LCMs and eight LCVPs), four LSILs, two LSSLs, and four LCUs, while the Transport Force was to comprise four LSTs and four LSMs. Finally, one squadron of amphibian patrol planes was to be activated.

After considering the development plan that had been outlined to him, General Ty stated that he agreed with it in principle and was prepared to accept a compensatory reduction in Army troop strengths if this became necessary to meet the naval forces requirements under the 150,000-man support ceiling. The future of the Vietnamese Naval Forces at last was assured.

This jointly-prepared development plan marked the final French contribution to the evolution of the Vietnamese naval establishment. From the very first, the French had stressed the importance of the river forces. The naval assault division concept that they had developed and bequeathed to the Vietnamese was perhaps the most important single tactical innovation to emerge from the Indochina War. Of related significance was the insistence of the French that infantry elements should be part of a river force and should normally operate with the boat units. This practice provided the basis for the eventual organization of the Vietnamese Marine Corps. It should also be noted that the French included heavy fire support ships of the LSSL and LSIL types in the River Force, even though each dinassaut had LCMs modified as monitors. Further, the French anticipated the need for a Vietnamese coastal patrol force and undertook to form one as the Vietnamese Navy gained operational competence. From the beginning, the French also advocated the inclusion of a patrol plane squadron in the Vietnamese Navy. This was never done, but the validity of the proposal appears to be confirmed by the U. S. Navy patrol plane mission which has been carried on for several years over South Vietnam coastal areas. Finally, the French emphasis on training and the construction of the naval schools at Nhatrang as the first steps in the creation of a navy were noteworthy attitudes.

The legacy of the French to the Vietnamese Navy is substantial; its organizational structure is essentially French in concept. Since 1956, however, the impact of U. S. operational procedures and practices has served to give to the Vietnamese Navy a dual patrimony. The Vietnamese Marine Corps, in contrast, has been almost wholly a creation of the United States. The French ideas regarding a Vietnamese Marine Corps very clearly did not extend beyond a grouping of diverse, small, infantry units for service with river forces. The "amphibian battalion" previously mentioned was not intended to be duplicated or otherwise to evolve as anything but a specialized unit. The initial consolidation of Corps units into two battalions, the later formation of a three-battalion regiment, and the eventual evolution of the brigade structure all owe their realization to the U. S. advisory effort. It must be acknowledged, however, that, since 20 August 1955, when the Vietnamese Naval Forces passed under Vietnamese command, the decisions that have brought them to their present status were made by the Vietnamese themselves.

Commissioned in the U. S. Marine Corps in 1940, Colonel Croizat has commanded all Marine units from a platoon to a regiment. He commanded the first amphibious tractor unit in combat at Guadalcanal in 1942, and, in 1954, became the first advisor to the Vietnamese Marine Corps. In 1957, he was assigned to observe the employment of helicopter-borne forces in the Algerian War. Between 1958 and 1961, he served, successively, in Haiti (conducting negotiations that led to the establishment of the U. S. Naval Mission there), French West and Equatorial Africa (on a fact-finding mission), and on Okinawa (as Chief of Staff, FMF Seventh Fleet). From 1961 to 1964, he was U. S. Military Advisor's Representative to SEATO Headquarters in Bangkok. He commanded the Fifth Marines in 1964 and, prior to his retirement in 1966, returned to Vietnam to prepare an interim doctrine for the conduct of riverine warfare.

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Naval Institute

Shu-Fly Diary

by Archie J. Clapp, Lieutenant Colonel, U. S. Marine Corps

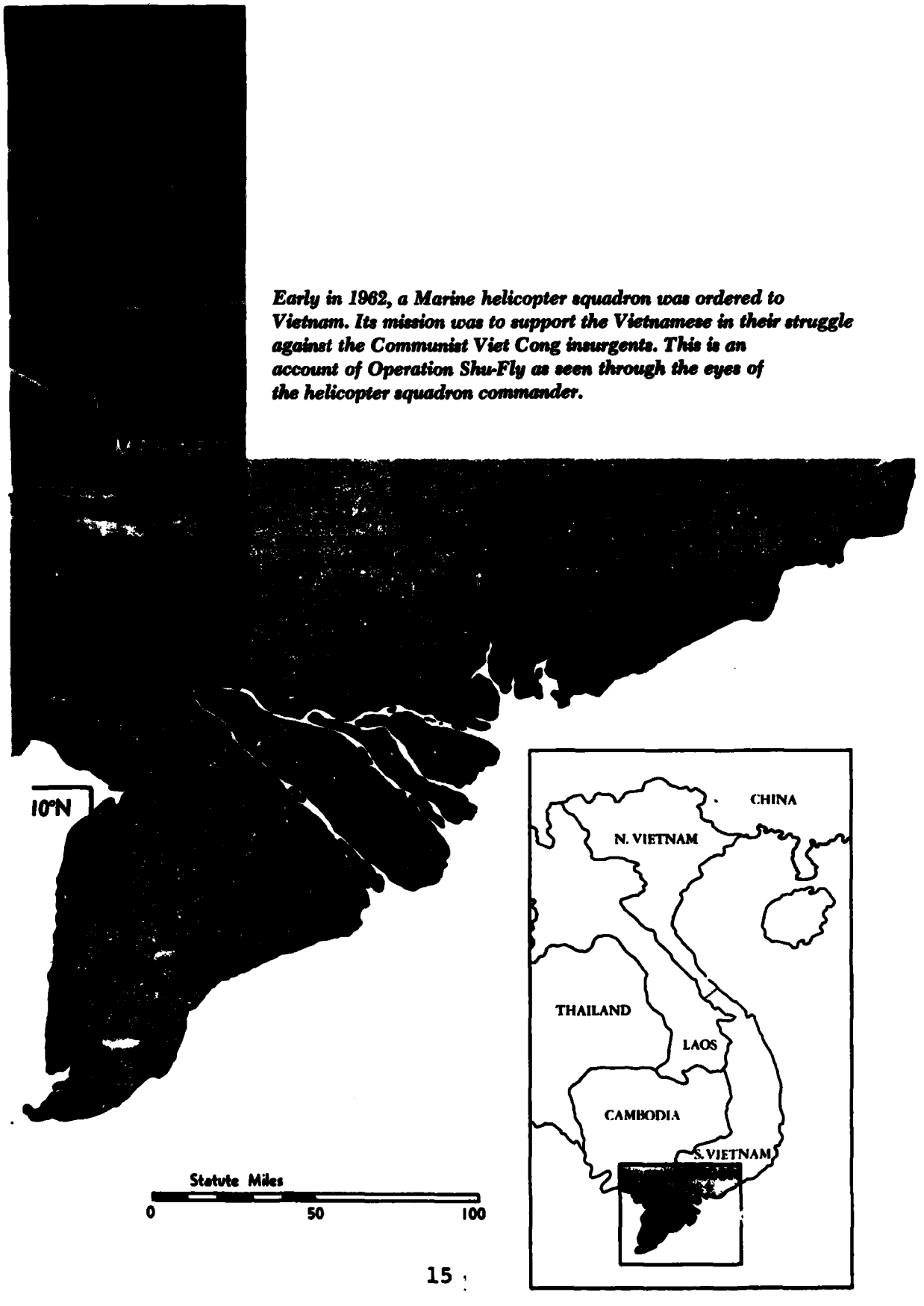
The Commander, First Marine Aircraft Wing, received the execute order in the latter part of March while engaged in SEATO Exercise TULUNGAN in the Philippines. This was fortunate, in a way, because he had the affected elements of his normally far-flung command close at hand. Planning was accomplished in his command post on Mindoro, where all essential details were nailed down in a few days, with no appreciable disruption to TULUNGAN.

The commitment called for the unit to be in place by 15 April 1962. Vietnam was divided into three Corps areas of responsibility, with I Corps in the extreme north, II Corps in the center, and III Corps, which the squadron would support, in the south. This meant that the Marines would be working in the Mekong Delta region, which comprises most of the III Corps area. The former Japanese fighter strip at Soc Trang in Ba Xuyen Province was designated as the Marine base of operations.

Soc Trang lies about 85 miles south-southwest of Saigon, in the heart of what is commonly referred to as "Indian Country." The government has control of a few population centers in that area, but the countryside is dominated by the Viet Cong. Thus, the Marine base would be, in effect, an island in a hostile sea. To discourage the VC from "coming ashore on the island," a Vietnamese infantry battalion, supported by a 4.2 mortar battalion was detailed for perimeter security. Close-in and internal security would be handled by our own cooks, mechanics, and clerks.

Because of the "island" nature of the base,

Early in 1962, a Marine helicopter squadron was ordered to Vietnam. Its mission was to support the Vietnamese in their struggle against the Communist Viet Cong insurgents. This is an account of Operation Shu-Fly as seen through the eyes of the helicopter squadron commander.



the entire deployment would be executed by air—we would go ashore by air and continue to be supported by air. The only items not air-delivered were fuel and water. A civilian contractor risked ambush to deliver aviation fuel by truck and Marine water trucks bustled between the base and the town of Soc Trang, a distance of about three miles.

Our task unit consisted of an operational element and a base-keeping element. The former was my outfit.

The normal 200-man T/O of my unit was augmented by about 50 maintenance personnel. In addition to our H-34D helicopters, we were given 01B observation aircraft and C-117D transport aircraft, the latter were utilized for liaison and ration runs between Soc Trang and Saigon.

The base-keeping element was given about the same number of personnel as the helicopter squadron. In addition to usual camp facilities, it was assigned a TAFDS and a MATCU, the latter equipped with TACAN and GCA. The primary reason these navigation and landing aids were included on the equipment list was so the C-130F transports could get into Soc Trang with essential supplies and gear, regardless of weather conditions. Secondly, of course, the helicopters would make use of them at night and in foul weather.

Exercise TULUNGAN ended on 1 April, and the squadron immediately backloaded to the USS *Princeton* (LPH-5), which had been its home for the preceding six months. The ship then steamed north, stopping first at Subic Bay. There, we went through an around-the-clock process of swapping aircraft with our sister squadron so that we would take the aircraft ashore that had the longest time to run before scheduled overhaul. This completed, the *Princeton* headed still farther north to Okinawa to pick up the remainder of our personnel and gear.

Meanwhile, the task unit headquarters and MABS were making their last minute preparations at Okinawa. Then, on 8 April, they began flying into Soc Trang to start erecting the camp and establishing liaison with the Commander, U. S. Military Assistance Command, Vietnam, (COMUSMACV) and the Vietnamese III Corps Headquarters.

The *Princeton* departed Okinawa on the evening of 10 April and arrived at a position about 20 miles off the mouth of the Mekong River at dawn on 15 April. All personnel and gear were helicopter-lifted ashore by mid-afternoon. The only difficulty encountered was when one 01B made an unscheduled landing back aboard ship because of a rough-running engine; however, it was able to fly ashore later. The helicopter squadron portion of the camp was erected by dark, and the task unit could have started accepting missions the next day. It was a week, though, before III Corps requested the first combat troop lift. The intervening time was spent with briefings, area familiarization flights, and in making the camp more habitable. A few minor missions were also flown.

Our activities in Vietnam can best be viewed in chronological order. Examination of a relatively small number of our missions will be sufficient to determine what lessons were learned on this deployment and to pinpoint procedures that we considered either effective or ineffective.

Wednesday, 18 April: Two helicopters were requested to haul priority supplies from Ca Mau to Binh Hung. Ca Mau is the southernmost town in Vietnam that is under control of the Vietnamese government; Binh Hung is Father Hoa's famed "village that refuses to die." No roads lead to Binh Hung. The tree-lined canals and streams, which are the only surface routes of transportation, are ideal for ambush, and the VC control the surrounding countryside. Therefore, helicopters are the safest means of transportation between Binh Hung and the "outside world." For this reason, Marine helicopters, being based farther south than any other helicopter unit, would fly the Ca Mau-Binh Hung route many times.

Upon their arrival at Binh Hung, the pilots received their first taste of just one of the operational hazards in the area: unpredictable terrain. They landed and shut-down on what appeared to be hard, dry ground. In a couple of minutes, though, they noticed that the landing gear was slowly but steadily sinking. Timbers were quickly shoved under the axles, yet the axles were solid on the timbers before the helicopters could be started and rotors engaged for take-off. After that experience, the helicopters always carried a short length of marston-matting to be placed under the wheels by the crew chief before the

helicopters were shut down in the field.

Friday, 20 April: A practice troop lift was flown with the 21st Division. A problem was highlighted that had not occurred to us before. The small size of the Vietnamese troops (they are about five-footers) made it difficult for them to embark in the helicopters when they were on solid ground, and impossible when they were in mud. The squadron metalsmiths built large jury-rig steps from wood and angle iron to solve the problem.

Sunday, 22 April: The squadron made its first troop lift against opposition today (Easter Sunday). "Operation Lockjaw," as it was called, consisted of landing approximately 340 troops of the Vietnamese 7th Division on one side of a stream-divided village while a U. S. Army helicopter company (from Saigon) landed a like number on the other side. Opposition was light and no aircraft were hit, so the Corps gained some "combat veterans" for a very reasonable price.

Tuesday, 24 April: "Operation Nightingale" entailed landing troops of the 21st Division in eight separate landing sites. Enemy small arms fire was received upon landing in several of the sites, and one helicopter was hit in an oil line. The pilot was able to take off and fly about a mile from the objective before landing in a rice paddy near a Self Defense Corps outpost. We were then able to make use of the "down-bird" procedure we had formulated, but had not yet tried.

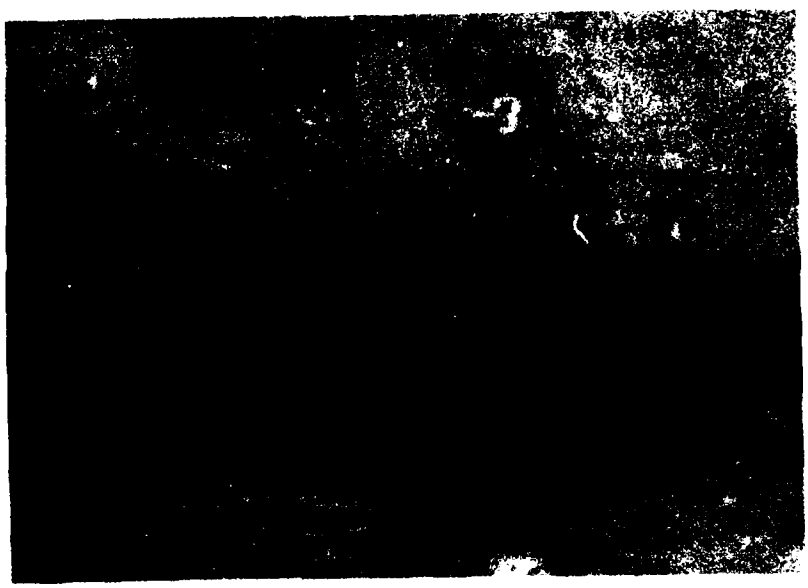
A wingman landed and retrieved the crew, while a division of four helicopters proceeded to the forward loading site where it picked up the repair crew and troops from the reserve to form perimeter security. The repair crew determined what was needed to fix our downed bird; the part was flown in from Soc Trang, immediately installed, and the helicopter was then flown out and returned to base—all within two hours of the time it was hit. The reserve troops were then lifted out of the area.

The ground action went quite well also. The Viet Cong lost 52 troops killed and two captured, against three Vietnamese troops killed and six wounded.

Thursday, 26 April: The squadron went on its first "short-order" mission today. The III Corps briefing officer arrived at Soc Trang shortly after 0700. The crews were briefed, helicopters proceeded to the troop pick-up point, and landing was executed at 0900. Very light opposition was encountered upon landing, and the Vietnamese troops rounded up over 100 VC suspects for questioning. This indicated to us not only that quick-reaction type missions are feasible, but also that the results are more than satisfactory.

Tuesday, 1 May: Twenty-four helicopters and two observation aircraft launched to help the 21st Division "crash" the Communist May Day festivities. Mission successful.

Saturday, 5 May: The Ba Xuyen Province Chief requested helicopter support to help his civil guards raid a VC "fortified village" located about 12 miles southwest of Soc Trang. Because of the proximity of the target, and



The Marines established their base camp adjacent to a former Japanese fighter strip, three miles from the village of Soc Trang. The entire deployment—tents, vehicles, supplies—was made by air.

the obvious problem of maintaining an element of surprise, a tactic new to us was utilized. The helicopter flight rendezvoused over Soc Trang at treetop-level and proceeded to the objective at the same altitude. The flight leader climbed to 1,500 feet and flew slightly to the rear of the flight so that he could keep it in sight. He was thus able to give "steers" to each element of the flight so that they were able to land precisely as planned on sites that encircled the village.

This procedure of "calling the plays from the top of the grandstand" is quite effective when a low-level approach is required and low-oblique checkpoints are limited, as was the case here. Surprise apparently was maintained, too, because the troops reported 60 VC killed, 15 wounded, and 24 captured, with no friendly losses.

Wednesday, 9 May: The village of Cai Ngay is located about 20 miles south of Ca Mau, and is situated in a heavily wooded area where two sizable streams cross. The Viet Cong had made Cai Ngay a well fortified village. We received a mission request to pick up troops from the 21st Division at Ca Mau and land them at Cai Ngay as soon as a preparatory air strike had lifted. According to plan, the Vietnamese "Able Dog" pilot broke off his attack as we came in sight. He had been working the village over for about 20 minutes and several columns of rising smoke indicated that he had done his job well.

The helicopter flight split into six smaller flights to land troops in their encircling positions, and the individual flights commenced their landing approaches simultaneously. Half the flights received small arms fire while they were still in their approaches, and it continued until after they had discharged their troops and departed the area.

Eight of the 22 helicopters, plus the only participating OIB, were hit at least once. One Vietnamese Army man was killed and another wounded while they were airborne. Some automatic rifle fire was observed. All except one of the damaged aircraft were able to get back to Ca Mau before repairs were made. The damaged aircraft had to make an emergency landing a few miles from Cai Ngay for repairs before it could be returned to Ca Mau. The "down-bird" procedure got another workout.

Why, we wanted to know, were we subjected to this heavy opposition when we were landing on the heels of an air strike? We concluded that it was not in spite of, but because of the air strike. When the air strike started, the VC grabbed their guns and headed out of town. They must have made it as far as the ditches and dikes running through the fields that were the intended helicopter landing sites. There the VC took up firing positions.

The VC were doubly lucky in this instance, because they apparently found themselves outside the ring of troops the helicopters placed around the village. When the troops closed on the village, their bag was zero.

We began to have serious reservations about preparatory air strikes in this type operation. Besides the possibility of inflicting casualties on current or potential friends, forfeiture of the element of surprise is a certainty. There did not seem to be enough favorable results to offset these drawbacks.

That is not to say, however, that there is *no* place for air support in counter-guerrilla operations. Some *on-call* support would have been most welcome that day, and would probably have caused some VC casualties. But the language barrier between the attack pilots and helicopter flight leader precluded calling the strike in on target. This mission precipitated our insistence upon being covered by support fighter aircraft flown by English-speaking pilots.

Thursday, 10 May: The squadron returned to the scene of its first combat troop lift today, and the general scheme of maneuver was just about the same as before. This time, however, there was a welcoming committee.

As the flight approached the village, armed men could be seen scurrying out into the fields where they dove into tall weeds and literally disappeared. A few of them, who happened to land in a sparse spot, could be seen lying on their backs firing upward at the helicopters as they passed only a few feet above them. The rest of them were presumably doing the same thing. One helicopter was hit, but was able to make it back to the forward loading site before repairs were made.

This mission pointed up a cardinal principle of counter-guerrilla work: never repeat a previous maneuver. It is a tremendous temptation to repeat something that works

well the first time, but there are few tactics more dangerous (or less effective) when operating helicopters against irregulars.

By the very nature of their doctrine, the Viet Cong is an "army of shadows." They *must* remain dispersed among the population, mass only when they intend to deliver a blow, then very rapidly disperse again. As long as the struggle is classified as an insurgency, they will always be "outweighed" by the government troops. Therefore, if they allow themselves to become cornered, they are dead.

While the government troops are "heavier" and pack more punch, there is no reason why they cannot be just as nimble as the VC, if the helicopters are employed to maximum advantage. There is no point in "telegraphing punches" with elaborate preparations for a massive mission; quick-reaction missions give better results anyway. And it isn't that difficult to vary ground tactics, constantly change flight procedures and routes, and employ various means of deception.

In the instant case, the VC apparently were so sure that the previous successful operation would be duplicated some time in the future that they formulated a counter plan and waited nearly a month to put it into effect. And it paid off for them. Also, when five helicopters were shot down on a single mission early in 1963, it is reported that they were making their *third* landing in the same place.

Saturday, 19 May: The Ba Xuyen Province Chief received intelligence to the effect that a meeting of some Viet Cong leaders would take place in a village about 12 miles southeast of Soc Trang. Troops were brought to Soc Trang for loading and they were landed in "typical" formation (i.e., in four groups at the four corners of the objective village).

The Viet Cong, as usual, started slipping through the thin line of government troops, and headed for a river that lay about a mile away across open rice paddies. Their getaway seemed to be certain.

About the time they reached the mid-point between the village and the river, however, four helicopters that had been circling out of sight came in and landed their troops in a column between the VC and the river. Not all the fleeing VC were captured, but the tactic was successful enough to convince us that we were on the right track by employing an airborne reserve concept.

The principal reason the effort was not more successful was that some of the troops didn't know which way to advance when they debarked from the helicopters. We remedied this situation for future operations by preparing a debarkation diagram. A simple sketch was made of the plan view of the helicopter cabin. The legend, "Direction of Attack," was put on it in both English and Vietnamese. A quantity of them were reproduced and distributed to the pilots. Just before landing, the copilot marked an arrow on a diagram and handed it to the crew chief, who in turn gave it to the heli-team leader.

Wednesday, 23 May: A message was received about 2000 stating that two Vietnamese officers had received severe head wounds in an engagement about 30 miles southwest of Saigon and needed immediate evacuation. The weather was quite poor at the time. A ragged ceiling hung at about 300 feet and rain-hampered visibility was limited to no more than a couple of miles.

Two helicopters launched and navigated the 50 miles to the pick-up point by a combination of dead reckoning and occasional visual checks on larger towns en route. When they reached the vicinity of the site, they were guided to a landing by a bonfire. The casualties were picked up rapidly and taken to a hospital in Saigon.

Judging by the reaction of the 7th Division Commander, in whose sector it took place, this was as important as any mission we flew. He indicated that this was the first night helicopter evacuation they had had, and the effect it would have on the morale and fighting spirit of his troops was immeasurable. Daytime casualty evacuation missions were numerous and routine.

Sunday, 27 May: We were "spending a quiet Sunday at home" when a message was received that a fortified village located about 85 miles north of Soc Trang was under attack. Aircraft were manned and launched immediately and proceeded to a troop pick-up site about 15 miles from the besieged village. The VC broke contact immediately and slipped away into the nearby woods just before the troops were landed.

While the mission produced no scalps, we heard later that this rapid response to a call

for help from the villagers did much toward selling the fortified village concept to the people in that vicinity.

We heard of more than one instance where the VC broke off an attack simply because helicopters appeared overhead, even though the 'copters were headed on another mission and the crews were unaware that the attack was in progress. So the mere presence of airborne helicopters in an area would appear to limit the insurgents' freedom of action.

Saturday, 2 June: An American advisor in an observation aircraft spotted what appeared to be a VC camp on a hilltop in the vicinity of Rach Gia. He reported the sighting to the 21st Division Commander, who immediately requested and received helicopter and fixed-wing air support.

The helicopters were launched from Soc Trang as soon as they could be manned, picked up troops at Can Tho, and proceeded to the objective. When they arrived, a B-26 Vietnamese bomber had the hilltop under rocket attack. The troops were landed in an encircling disposition around the base of the hill. They contracted around its sides and scaled the hill without making VC contact.

This seemed to us to be another case of an air strike serving the purpose of warning the VC, if this had indeed been one of their camps. It strengthened our previously stated conviction that uncontrolled air strikes are of questionable value at best in counter-guerrilla work and probably do more harm than good.

Monday, 4 June: The day started as a routine lift of 7th Division troops in the Plain of Reeds area to the west of Saigon. But it turned out to be our "Longest Day."

When the troops landed on their first objective, a village situated at a stream junction, many armed and uniformed Viet Cong soldiers were flushed from the village. They headed north in the direction of the Cambodian border. This signalled the beginning of a huge checker game all over that sector.

When the helicopters returned to the pick-up point for the second scheduled load, the flight leader hurriedly briefed the Division Commander as to what he had observed. The Division Commander decided to carry through with the second scheduled landing in approximately the same place as the first. He indicated that this was to give him a substantial holding force and he would start hitting from the other direction (i.e., this was to be his "anvil" and he intended to make other "hammer landings" and catch the VC in between).

Five more landings were made with troops from the reserve and from various garrisons in the area, and with security troops "borrowed" from the local province chief. On one of the landings, the VC got the jump on the government troops and slipped outside the "net." The helicopters swung around and made a dummy landing approach to the far side of them, so they turned and ran back into the face of the government troops (an example of deception, as previously mentioned).

On the last landing, we confirmed something we had suspected right along: the aviator's hard hat is not bullet-proof. The flight leader's copilot, was leaning out the window using a submachine gun to spray a group of VC troops who were firing at the flight as it was lifting off. The flight leader heard a bullet hit the aircraft and looked around the cockpit to see if everything was still functioning. He saw a large hole in the back of the copilot's helmet and informed him that the back of his helmet had been nicked. The copilot turned around to face the flight leader, who then spotted a small clean hole in the front of the helmet. The bullet had gone in the front of the helmet and out the back, passing through the half-inch-thick padding between the helmet and his head.

The main lesson gained from this day's flight was the importance of remaining flexible. It is a good idea to plan meticulously for this type combat, just as much so as with any other type. Since targets are nearly always fleeting, however, and unexpected opportunities present themselves and then nearly always evaporate immediately, the commander must be prepared to alter his plans much more rapidly than with most other types of combat. Ideally, an officer with power of decision over commitment or non-commitment of the troops should be airborne over the scene of action.

"Meanwhile back at the fort," (Soc Trang) things were somewhat less than quiet for the few aircraft and crews left there. The Ba Xuyen Province Chief came to the base seeking assistance. He had been unable to

gain communication with his garrison at Vinh Quoi, about 25 miles west of Soc Trang.

Troops were loaded into the only four helicopters remaining at the base, and they proceeded to Vinh Quoi. When they arrived, they found the village in flames, with several hundred pillaging VC still on the scene. The VC decided to flee instead of finishing their job of destruction—probably because they had no way of knowing that the bulk of the choppers were up north and they outnumbered by far any force that could be landed right away.

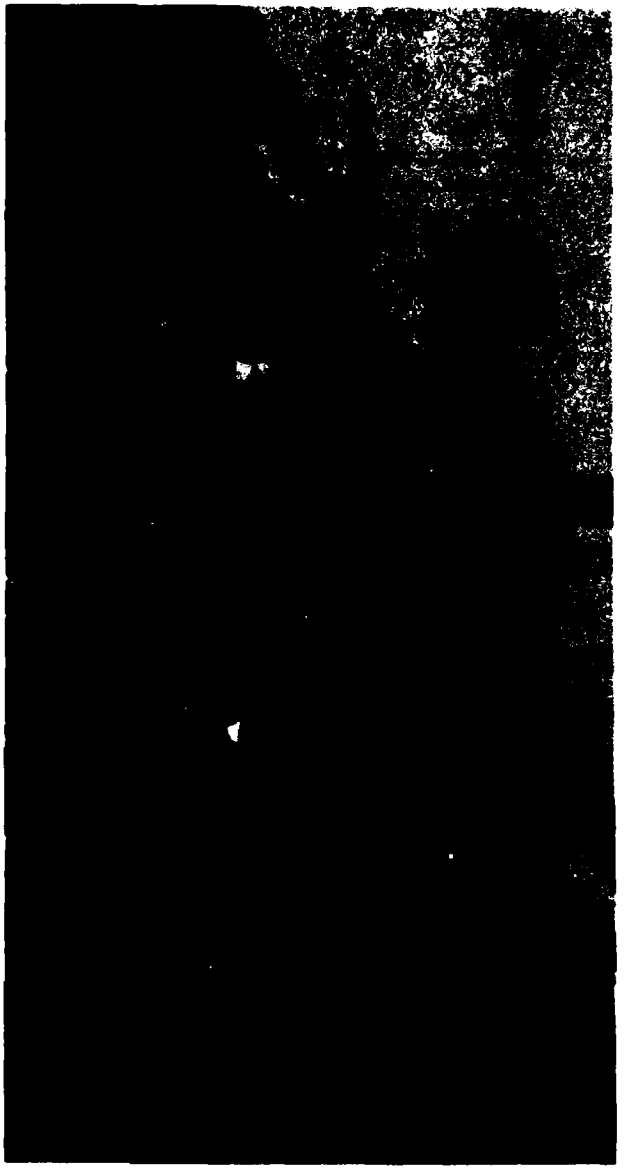
As the VC scurried away from Vinh Quoi in all directions, by boat and on foot, the four helicopters shuttled troops into the ransacked village to set up a defense before dark. On outbound trips, they evacuated the widows, orphans, wounded, and dead.

Thursday, 7 June: On a landing with 21st Division troops today, many people flushed from the objective village while the helicopters were on final approach. There were so many, in fact, that they posed somewhat of a traffic problem in the landing sites. As no weapons were in evidence, it was out of the question to use suppressive fire, both because of the don't-shoot-first policy and the likelihood of hitting innocent people. Nevertheless, two of our helicopters were hit by small arms fire.

This was by no means the only time we were faced with this situation—the VC intermingling with the local population while they fired at us. If there is an answer to this problem, we didn't find it. This is one of the inherent characteristics of counter-guerrilla work that merely has got to be accepted as part of the job.

Friday 8 June: Today we experienced good results with the Eagle Flight (the name given to the airborne reserve). A system of ground-to-air signals was worked out so that the same troops could be retrieved and used over and over again.

As usual, many people started streaming out of the objective village while the main flight of helicopters was landing. The reserve troops were then placed where they could intercept and check a group of them. When they were satisfied that they were "clean," they would signal for pick-up. In the meantime, the helicopter flight cruised around keeping the



The diminutive size of the average Vietnamese made it difficult for him to embark in the helicopters when he was on solid ground, and impossible when he was in the mud.

GCA	Ground Control Approach
MABS	Marine Air Base Squadron
MATCU	Marine Air Traffic Control Unit
SEATO	South East Asia Treaty Organization
TACAN	Tactical Air Navigation
TAFDS	Tactical Aviation Fuel Dispensing System
T/O	Tables of Organization

area under surveillance, and would have another suspicious group spotted by the time the troops were picked up again.

This evolution was repeated several times before they hit pay dirt. A lone, black-clad figure was seen making his way from dike to dike toward a tree-lined canal, his apparent escape route. The troops landed and picked him up, and he was identified as a VC leader. He was carrying a suitcase filled with money and documents.

Thursday, 14 June: The squadron participated in its first jungle mission today, supporting the 5th Division in a landing in Viet Cong "D-Zone." The landing site was a pear-shaped clearing about 35 miles north of Saigon, in which the VC had emplaced sharpened bamboo poles as an anti-helicopter device. While the helicopters could probably have landed among the poles without too much difficulty, it would have been pretty hard on the troops when they debarked. Therefore, the landing was made around the perimeter of the clearing between the poles and the trees.

By restricting us to a landing in this narrow perimeter, the VC had an ideal set-up for a mine or machinegun defense. Fortunately, though, they chose not to defend the site.

We noted several differences between jungle and delta helicopter operations. Whereas we had some degree of selectivity of landing sites for a particular objective in the delta area, there are likely to be no more than a couple, and perhaps only one clearing in the jungle that is usable for a certain objective. This, of course, favors the defender.

Also, it is more difficult to remain oriented over a "sea of trees" than over a patchwork of streams and canals. Generally speaking, though, the degree of accuracy in navigation is greater than in the delta area. Dead reckoning can be employed over the jungle, and when it leads to a clearing, that undoubtedly is the right spot. In the delta, however, most villages are similar enough in appearance that the objective could be any one of several in the immediate vicinity unless pinpoint navigation and accurate map reading is used to single out the proper one.

Although it fortunately did not apply on this mission, the matter of making forced landings and retrieving crews from downed aircraft is considerably more difficult in a jungle area than on the delta.

Saturday, 16 June: The VC ambushed a convoy to the north of Saigon, killed two American officers and several Vietnamese soldiers, and captured a quantity of weapons. The squadron was diverted from another mission to land troops in an attempt to head them off.

The helicopters received small arms fire while landing. As soon as they had discharged their troops and cleared the area, a radio call was received that requested them to land again and move some troops that had been placed in the wrong spot by another outfit. The request was denied.

The only reason this is noted here is to bring out a principle. Although we considered it feasible to land and discharge troops while receiving moderate small arms fire, it is *not* feasible to land and sit on the ground long enough to load troops within range of opposing small arms. Troops can debark in a few seconds, but loading is another matter. Either the troops must group into heli-teams for rapid loading and be vulnerable themselves, or the helicopters must make sitting ducks of themselves while they wait for the troops to get organized and loaded. Therefore, loading must be done in a "secure" area, unless likely loss of troops and/or helicopters is an acceptable risk under the prevailing situation.

Monday, 18 June: Today was the only time we had to delay a mission because of weather. Between the pick-up point and the landing site, rain got so heavy that we could no longer keep visual contact with the ground and the flight elements lost sight of one another. A preconceived plan for such a situation was executed without difficulty. On signal of the flight leader, each flight element reversed course in turn, starting from the rear. After breaking into clear weather, the flight rendezvoused and proceeded to the pick-up point to wait for the squall to pass, then proceeded with the operation again.

Friday, 6 July: We made a second trip to Cai Ngay today. The helicopters received no opposing fire and the troops found the town completely deserted. The state of the refuse and garbage indicated that the mass evacuation had probably taken place the day be-

A Vietnamese infantryman, his AR-15 rifle slung over his shoulder, heads out on a patrol, seemingly unmindful that his country has been engaged in anti-guerrilla warfare against the Viet Cong insurgents for more than nine years.

fore. The most logical explanation was that a security leak alerted the villagers.

Wednesday, 18 July: The largest helicopter lift in Vietnam to date took place today in a landing with 5th Division troops north of Saigon. The Marines led with 18 helicopters, the U. S. Army came next with 12, and the Vietnamese Air Force followed with 11.

In a joint operation like this, with helicopters flown by pilots who do not speak the same language, detailed planning is obviously a must. The foremost drawback, even if the operation is well-planned, is the lack of flexibility brought about by a virtual communication blackout. This particular operation was relatively uneventful and opposition was moderate, so it worked out reasonably well. That is not to say, however, that this should become a commonplace occurrence until some procedure is worked out to overcome the communication barrier.

Friday, 20 July: The first helicopter night troop landing in Vietnam was made today. The helicopters departed Soc Trang at 0425, departed the pick-up point at 0515, and landed the 7th Division troops on their objective in the Plain of Reeds at 0600, which was ten minutes before first light. The reasoning which dictated this selection of time was the desirability of an approach and landing in darkness for surprise, offset by the consideration that while the VC are slippery enough in daylight, in darkness they are even more so. Therefore, it was arranged that the government troops set up their encircling positions in darkness and close with the VC as soon as it was light enough to see.

All navigation would have to be visual, so the route was selected accordingly. The half moon would give enough light to reflect from bodies of water, which decided the checkpoints. Distinctive river/shore contours, lakes, and stream junctions provided the navigation fixes. Helicopter running lights were extinguished before reaching the Initial Point, and thereafter the engine exhaust was used to hold formation. The landing was made with the aid of the exhaust reflecting in the flooded rice paddies to show where the ground was.

The landing was completed without incident. It should be noted, though, that the success of this landing does not automatically make all types of night landings without landing aids a routine matter. The terrain was flat, the moon gave some degree of illumination, and the squadron at this time had been flying together for two years. The conditions were therefore nearly ideal.

Wednesday, 1 August: My squadron was officially relieved by another Marine helicopter squadron at 0001 this morning. All aircraft and gear changed hands at this point, although the actual work involved in the transfer had been going on for over a week. Also, the incoming pilots had been flying on missions in increasing numbers over the same

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period, while my pilots were slowly phased back to Okinawa for return to the States. This created a minimum break in continuity because of the squadron exchange.

All told, my squadron had made some 50 combat troop-lift missions which entailed about 130 landings by flights of helicopters against Viet Cong opposition.

Seventeen of our helicopters and two of the OIBs sustained gunfire damage, most of them more than once. While the VC created considerable work for the metalsmiths and mechs, they fortunately did not manage to do any damage that came under the cognizance of the doctor.

A GRADUATE of the University of Maryland, Lieutenant Colonel Clapp was commissioned a second lieutenant and received the wings of a Naval Aviator upon completion of flight training at Pensacola, Florida, in July 1943. During World War II, he participated in the Iwo Jima and Okinawa campaigns and in the first carrier-based raid on Tokyo. He served in Korea from 1952–1953, where he flew combat support missions as a helicopter pilot and as an attack aircraft pilot. He is presently assigned as executive officer of the Marine Air Reserve Training Detachment, NAS Twin Cities, Minneapolis, Minnesota.

Crew Protection

Before we landed in Vietnam, we exchanged our orange flight suits for tan ones so as not to present quite as attractive a target in the cockpit. We wore standard ground-type body armor over the suits. This type protective gear is not ideal but was all we had. In the high heat and humidity, many of the crewmen developed fairly serious cases of rash from wearing the armor for extended periods of time. Also, the armor leaves too much exposed area and would not stop a direct hit anyway. A camouflaged, fire-retardant flight suit is needed in case the crew has to walk out following a crash landing. And built-in armor plate is needed in the helicopter. Ideally, it should be easily removable so that the additional weight would not have to be carried when it was not needed.

Armament

We decided not to install machine guns on the helicopters as the Army had done. There were several reasons behind this decision, the principal one being that it would tend to block the cabin door. We figured that our best defense was to hold our time on the ground in the landing zone to a bare minimum. The best way to accomplish this is to have the cabin exit door clear and to have the crew chief help the troops debark rather than handle a machine gun. We did, however, carry two "Greasegun" submachine guns in each helicopter. The copilot covered the left side of the helicopter while the crew chief covered the right when we were close to, or on, the ground. They, of course, fired only when they could see a VC soldier firing at us.

Maps

We used 1:250,000 maps for en route navigation and 1:100,000 for terminal guidance in the objective area. This was found to be an adequate system as long as the crew remained oriented. There is no opportunity for reorientation, though, when flying at 100 knots a few feet above the ground.

Vulnerability

The question of helicopter vulnerability seems to be a perennial one, so we will examine our experience in this regard. We had nearly every part of a helicopter hit at one time or another—main rotor blades, tail rotor blades and shaft, engine, transmission housing, tires, structural spars, etc. The only hits that made an immediate landing essential was when an engine oil tank or line was damaged, and the oil was subsequently pumped overboard. Granted, most of the hits were from single-fire weapons; and heavy automatic fire would probably have made it an entirely different ball game. Still, the helicopter does not seem to be as fragile as some people think.

It would be foolhardy in the extreme to try to storm a fortified position in helicopters, or attempt to operate in the vicinity of a machine gun concentration. Likewise, some losses will likely occur when operating in an environment somewhat less formidable than either of those described here. Still, it is not necessary to "sanitize" an area completely

before helicopters can operate in it, if moderate losses are an acceptable factor. Surprise, deception, sound tactics, and a variety of "plays" will go a long way toward keeping losses at a minimum level in the counter-insurgency environment.

Crew Escape

Although relatively slow-flying helicopters are undoubtedly more vulnerable than high-performance, fixed-wing aircraft, when subjected to the same pattern of fire, the helicopters do have an advantageous characteristic. In a counter-insurgency situation, the countryside is "no-man's land" at best, if not totally hostile. If a fixed-wing aircraft goes down, the crew must either evade and walk out, or defend themselves while a helicopter is summoned for pick-up. On the other hand, since helicopters do not normally travel singly over hostile territory, they have inherent escape means in the form of an accompanying helicopter. Also, they are more likely to have a repairable machine after landing, one that can be flown out again.

Escort Aircraft

Helicopters need escort aircraft to call on for suppressive fire. The escorting aircraft must have flight characteristics that permit them to stay close to the helicopters and constantly in a position to initiate an attack. A target is not going to be seen until it is firing at the helicopters, and when this happens, even a short delay is too long.

The armament of the escort aircraft should be anti-personnel in nature. Their sole mission is to make someone stop shooting at the helicopters, and make them stop immediately. When an enemy gunner is no longer a threat to the helicopters, he ceases to be a valid target for the escort aircraft. When the helicopters get out of his range, he should be forgotten unless there are aircraft in the vicinity that are not assigned to the escort that can take him under fire.

It is realized that this is a rather loose and indefinite treatment of the important subject of helicopter escort, but it is purposely so. It is intended merely to give a sketch of the *results* the helicopter flight leader needs in order for him to get his work done (i.e., keep the opposition off his back while he places troops where they are supposed to be). Much work is still needed in developing hardware and doctrine before this result is achieved.

Conclusion

What did Operation Shu-Fly add to the store of knowledge for this type combat? It certainly did *not* produce a group of anti-guerrilla experts who have all the answers. It is believed, however, that most of the participants did come away with a keen awareness of the unique characteristics of this type combat. Along with a very few answers, they undoubtedly have many more questions to which they will try to find solutions. And if an appreciation of the problems inherent in this facet of military operations is all that was gained, then the deployment can still be considered productive.

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"It was obvious that neither the air war, nor the ground war, nor the political war was going well. The original hope, that with Americans securing the major bases, the South Vietnamese could successfully carry the fight to the Viet Cong, was fast fading."

Marine Corps Operations in Vietnam, 1965-1966

Edwin H. Simmons

Brigadier General, U. S. Marine Corps

Da Nang, March 1965. Elements of the 9th Marine Expeditionary Brigade prepare to come ashore at Red Beach Two, beginning the commitment of U. S. ground combat forces in South Vietnam. Small craft, such as the LCU-1476, have been hard-worked ever since, in both amphibious assault and logistic support of the ground and air forces ashore.

On 6 March 1965, the Pentagon announced that two battalions of Marines, some 3,500 men, were being sent to South Vietnam at the request of the government in Saigon, and that they would have the limited mission of strengthening security at Da Nang. The next day, Secretary of State Dean Rusk told a national television and radio audience that the Marines would shoot back if shot at, but that their mission was to put a tight security ring around the Da Nang air base, thus freeing South Vietnamese forces for combat.

These Marines were the first U. S. ground combat forces to be committed to the war. The 23,500 American servicemen already in Vietnam were called "advisers"—although many of them were actually serving in combat support units, such as Marine and Army helicopter elements—but two reinforced Marine infantry battalions, despite restraints placed on their employment, could only be viewed as "participants." It was obvious that there had been a major change in policy. How had it come about?

In February 1965 our aircraft had begun to attack military targets in North Vietnam, not in tit-for-tat response to specific provocations, as in the past, but on a sustained basis. Many of the U. S. Air Force and South Vietnamese fighter-bombers making those attacks were based at Da Nang, whose airfield was vulnerable to retaliation—to the kind of raid, perhaps, that had been made on Bien Hoa on 1 November 1964, when four Americans were killed, and 27 aircraft were destroyed or damaged; or on Pleiku on 7 February 1965, when eight Americans were killed, 80 wounded, and 20 aircraft were destroyed or damaged. The Viet Cong were credited with the capability of doing this and more to Da Nang. Intelligence reports showed 12 battalions—6,000 men, more or less—within striking distance of the air base. Not until the threat to Da Nang was unmistakable did Secretary of Defense Robert S. McNamara recommend to the President that the Marines be landed.

On 7 March, the day Secretary Rusk made his broadcast, the Viet Cong probed the garrison town of Mieu Dong, three miles south of the Da Nang airfield. In Da Nang itself, all was quiet, but there was something of a feeling of being under siege. At sea, the 9th Marine Expeditionary Brigade waited for orders to go in.

DA NANG LANDING

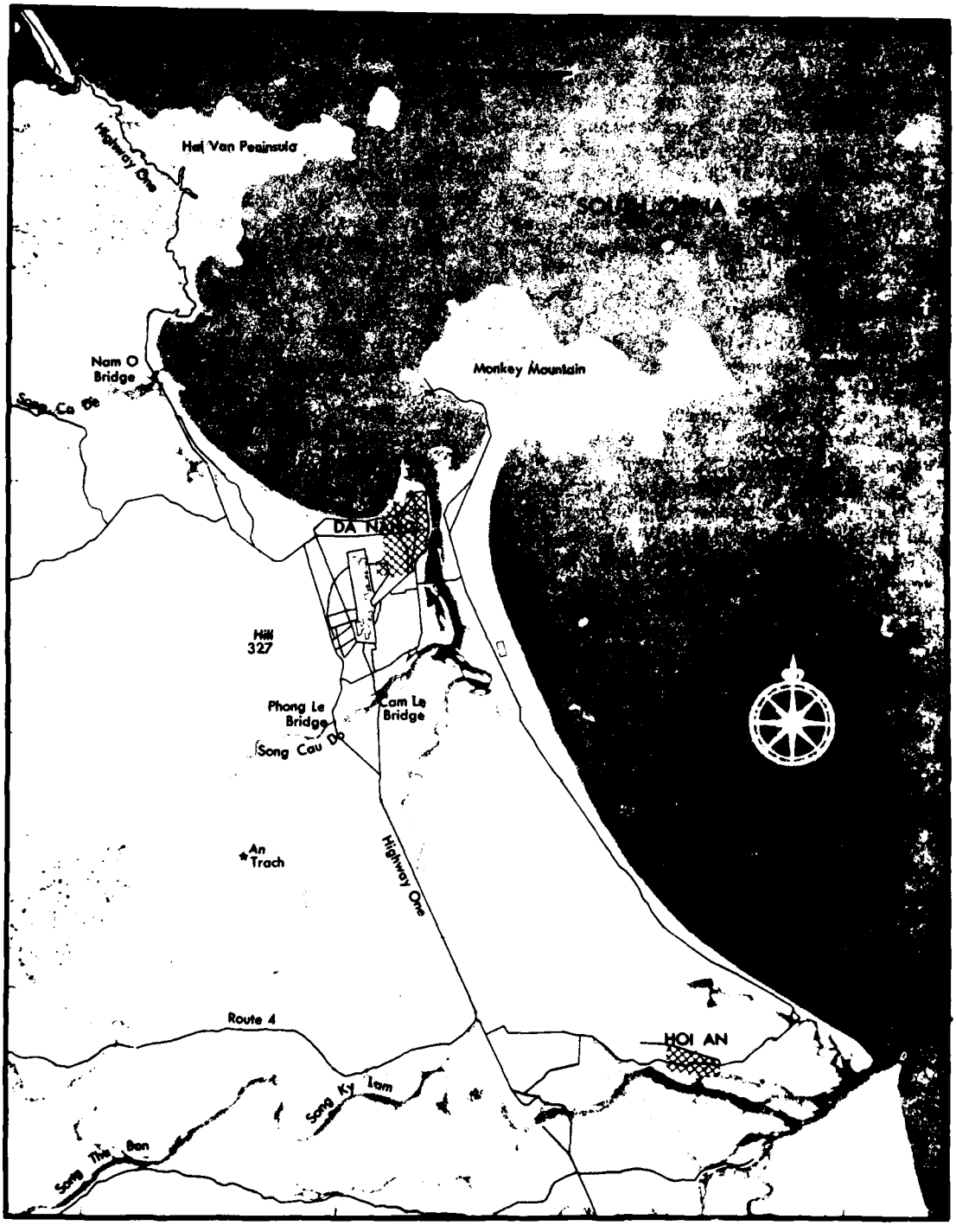
The northern arm of the Bay of Da Nang is formed by the Hai Van Mountains, a spur of the Annamite chain that comes out of the west, then drops precipitously from 1,192 meters down to the water's edge. The southern arm of the bay ends in a bulbous fist made by the 621-meter Mon Ky (or Monkey) Mountain, once an island perhaps, but now an extension of the mainland, connected by a neck of sand. Except during the northeast monsoon, the bay is a good harbor—one of the few protected, deep-water anchorages on the Vietnamese coast—and, even in normal times, Da Nang was second only to Saigon in tonnage handled. It is the old French colonial city of Tourane, and from a distance looks colorful and exotic, but at closer range, you see that it is war-worn, shabby, and swollen with refugees and other newcomers who have doubled its population in the last five years, to its present estimated 200,000.

For some years, Marine Corps contingency plans had taken into account the possibility of Marines being used in this area, but contingency plans are prepared for many places and usually are closely held: not much is heard about them at the junior officer and troop level. However, there was reason for much more broadly-based familiarity with Da Nang, for it was the objective area in Marine Corps Schools' Amphibious Warfare Study XVI. Prescience or coincidence? Perhaps both. Before World War II, from 1936 to 1940, Advanced Base Problems III, VI, and VII had used Palau, Guam, and Saipan as target areas.

The Nam O bridge carries Highway One, which is the old Mandarin Road, and the Trans-Vietnam Railway northwards across the Song Ca De. As recently as the summer of 1964, one could travel by rail, albeit dangerously and with a certain amount of forbearance on the part of the Viet Cong, 380 miles south from Da Nang to Saigon. But by March 1965, the railroad had been badly cut and, southwards from just below Da Nang, all the major bridges were down, and much of the track had been removed. It was still possible, although at some hazard, to go 50 miles north by rail: after crossing the Nam O bridge (which the Viet Cong did not destroy until April 1967), the line goes past the Esso terminal at Lien Chieu, hugs the front of the Hai Van promontory, burrows through many tunnels, comes out on the north side, then hurries across the open flatlands to the imperial city of Hue.

Highway One roughly parallels the railroad, but

The coast and operating area, Da Nang to Hoi An. The coastal area south of Monkey Mountain is low, and sandy areas alternate with rice paddies. Roads are unimpressive. For example, below Marble Mountain the road paralleling the coast is a rutted dirt passage, similar to that shown on page 16, degenerating at times into sand.


Hai Van Peninsula
Highway One
Nam O Bridge
Song Co Do
Monkey Mountain
DA NANG
Hill 327
Phong Le Bridge
Cam Le Bridge
Song Cau Do
An Trach
Highway One
Route 4
HOI AN
Song Ky Lam
Song Thu Bon

chooses to zig-zag up over the Hai Van Mountains, through the pass the French called, with reason, "Col des Nuages" (Pass of the Clouds). At Da Nang, the monsoon season is the reverse of what it is in the rest of South Vietnam: the summer is hot and fairly dry; the winter is warm and wet. By March, the drenching rains have passed, but the prevailing wind is still from the northeast, coming down from China across the South China Sea. There is an endemic condition in the spring months called "le crachin", when the clouds pile up on the mountains and the lowlands are filled with a drizzling mist.

Across the Beach

On the morning of 8 March 1965, the 9th Marine Expeditionary Brigade (Brigadier General Frederick J. Karch) had been at sea for two months. Early that day, Commodore Henry Suerstedt, Commander Task Group 76.7, brought his three ships USS *Union* (AKA-106), USS *Vancouver* (LPD-2), and USS *Henrico* (APA-45) into Da Nang Bay. The ships took station 4,000 yards off Red Beach Two. Commander Amphibious Task Force and CTF 76, Rear Admiral Don W. Wulzen, was on hand in the USS *Mount McKinley* (AGC-7). The beach is a fine, curving strip of sand the color and feel of raw sugar, just north of Da Nang and south of the Nam O bridge. The skies were gray and sullen, and a stiff wind from the northeast was roughening the water. Sea conditions were such that H-hour, scheduled for 0800 local time, had to be delayed an hour.

The surf was still running five feet or more when the first wave of Battalion Landing Team 3/9 (Lieutenant Colonel Charles E. McPartlin, Jr.) crossed the beach at 0902. By 0918, all scheduled waves were ashore, and general unloading began. The area had been thoroughly swept by two Vietnamese battalions, and there was air cover. While 3d Battalion, 9th Marines, did not expect the beach to be defended, neither did they expect quite the reception they received: an elaborate official welcome, including a group of giggling Vietnamese girls who proceeded to decorate the leading edge of the landing force, including General Karch, with garlands of red and yellow flowers.

Battalion Landing Team 3/9 had been the Special Landing Force of the Seventh Fleet. The other BLT of the 9th Marine Expeditionary Brigade, BLT 1/3 (Lieutenant Colonel Herbert J. Bain), was airlifted to Da Nang from Okinawa in Marine KC-130s, and began arriving at 1100 local time. When 60 per cent of the airlifted troops and 25 per cent of their vehicles and equipment had arrived, the field was glutted; it could not accommodate the in-rush of Marines and, at the same time, conduct normal flight operations. ComUSMACV, put a 48-nour hold on the rest of the BLT. The airlift began again on 10 March, and was completed by 1800 on 12 March. In all, the lift went well, without incident except for a little VC small-arms fire while the aircraft were in the approach, and a couple of inconsequential hits on one KC-130.

Marine helicopters had been operating from Da Nang since September 1962. Some weeks before the landings, HMM-163 (Lieutenant Colonel Norman G. Ewers) had relieved HMM-365 and was the squadron in place when BLT 3/9 arrived. HMM-365, now aboard the USS *Princeton* (LPH-5), flew in its Sikorsky UH-34Ds and turned them over to HMM-162 (Lieutenant Colonel Oliver W. Curtis), whose officers and men were arriving from Okinawa by airlift

Also already on the crowded airfield were two Hawk batteries of the 1st Light Anti-Aircraft Missile Battalion (Lieutenant Colonel Bertram E. Cook, Jr.), which had been ordered forward from Okinawa on 7 February. Now, with enough Marine infantry ashore to provide security, better positions for the missiles could be found in the surrounding hills.

Defense of the Airfield

General Westmoreland, ComUSMACV, was emphatic that the overall responsibility for the defense of the Da Nang area should remain with the Vietnamese. The specific mission assigned to 9th MEB was to reinforce the defenses of Da Nang air base and of such other installations agreed upon with General Nguyen Chanh Thi, Commanding General I Corps and I Corps Tactical Zone. (General Thi's rank at this time was actually brigadier general. In the Vietnamese service this carried the insignia of two stars, there being another one-star rank, that of sub-brigadier general. Later Thi was promoted to major general with three stars. Finally, in the winter of 1965 the Vietnamese government brought the titles into consonance with the stars and U. S. practise and Thi became a lieutenant general.)

Besides its shared responsibility for the close-in security of the airfield, 9th MEB was given the task of defending about eight thinly-populated square miles of high ground just west of the field, and the 3d Battalion, 9th Marines, moved toward that area early on 10 March. Company I climbed Hill 327 (327 meters or about 1,073 feet), the dominant terrain feature, named it "the hungry i" after themselves and a San Francisco night

club, and began to dig in. Company K took over Hill 268, which was lower and farther to the north, while, behind them, the engineers began cutting a road. As soon as the road was ready, a Hawk battery was to move up from the airfield to a better firing position.

These moves put the 3d Battalion, 9th Marines, in classic position for defense of the airfield against an attack by a conventional enemy but, unfortunately, contributed little to its defense against the usual Viet Cong pattern of guerrilla action: mortar attack, infiltration, and demolitions. The 1st Battalion, 3d Marines, remained on the airfield to secure it against those forms of attack.

Security

In a few years, the field had grown from a provincial airport to a major air base, a heterogeneous collection of activities—some military, some civilian, some Vietnamese, some American—clustered around a single 10,000-foot concrete runway, oriented just a little west of due north and south. On the east side of the field were Vietnamese and U. S. Air Force operations, most of the hangars and shops, the terminal of Air Vietnam, and the Vietnamese dependents' housing, which blurred into the city of Da Nang. Off the north end of the runway there was a narrow stretch of paddy, then the beach and the bay. On the west side were the Marine helicopter units, headquartered and billeted in a complex of crumbling old French barracks. Mixed in with them were a South Vietnamese armored outfit and bits and pieces of other Army of the Republic of Vietnam (ARVN) units. Just beyond the wire on the west side, where Highway One and the railroad run north and south, there had mushroomed what the Americans called "Dog Patch"—an aggregation of bars, laundries, tailors, photographers, and souvenir shops.

South of the field was the more rural Hoa Vang district, about a mile of it, and then the Song Cau Do River which flows from southwest to northeast. The Phong Le bridge carried the tracks of the railroad and alternate Route One across this river. A mile farther downstream was the Cam Le bridge. Except for a narrow strip along Highway One, the territory south of the river was pure Viet Cong, and aircraft approaching Da Nang had to run a spiteful gauntlet of fire from Viet Cong small arms.

The perimeter enclosing the air base had grown since the time of the French. It consisted of a ring of dilapidated, concrete blockhouses, interspersed with spidery, steel watchtowers, a perimeter lighting system of unreliable performance, and belts of rusting barbed wire hung, here and there, with triangular tin signs marking minefields left by some previous defender. Pressing close to the wire was a rabbit warren of Vietnamese dwellings, some substantial but most made of tin, thatch, and cardboard. Just before the Marines arrived, it was decreed that this warren must be cleared out to a depth of 400 meters, so that a kind of *cordon sanitaire* could be established around the base, but this involved relocating some 7,000 persons and would take months to do.

From this confused, congested field, virtually every kind of tactical and transport aircraft in the U. S. inventory was being operated. With all these tempting, soft-skinned targets available to the VC, it was chilling to the Marine defenders to realize that just beyond the wire and within mortar range, there lived some 250,000 Vietnamese of varying political inclinations.

I CORPS TACTICAL ZONE

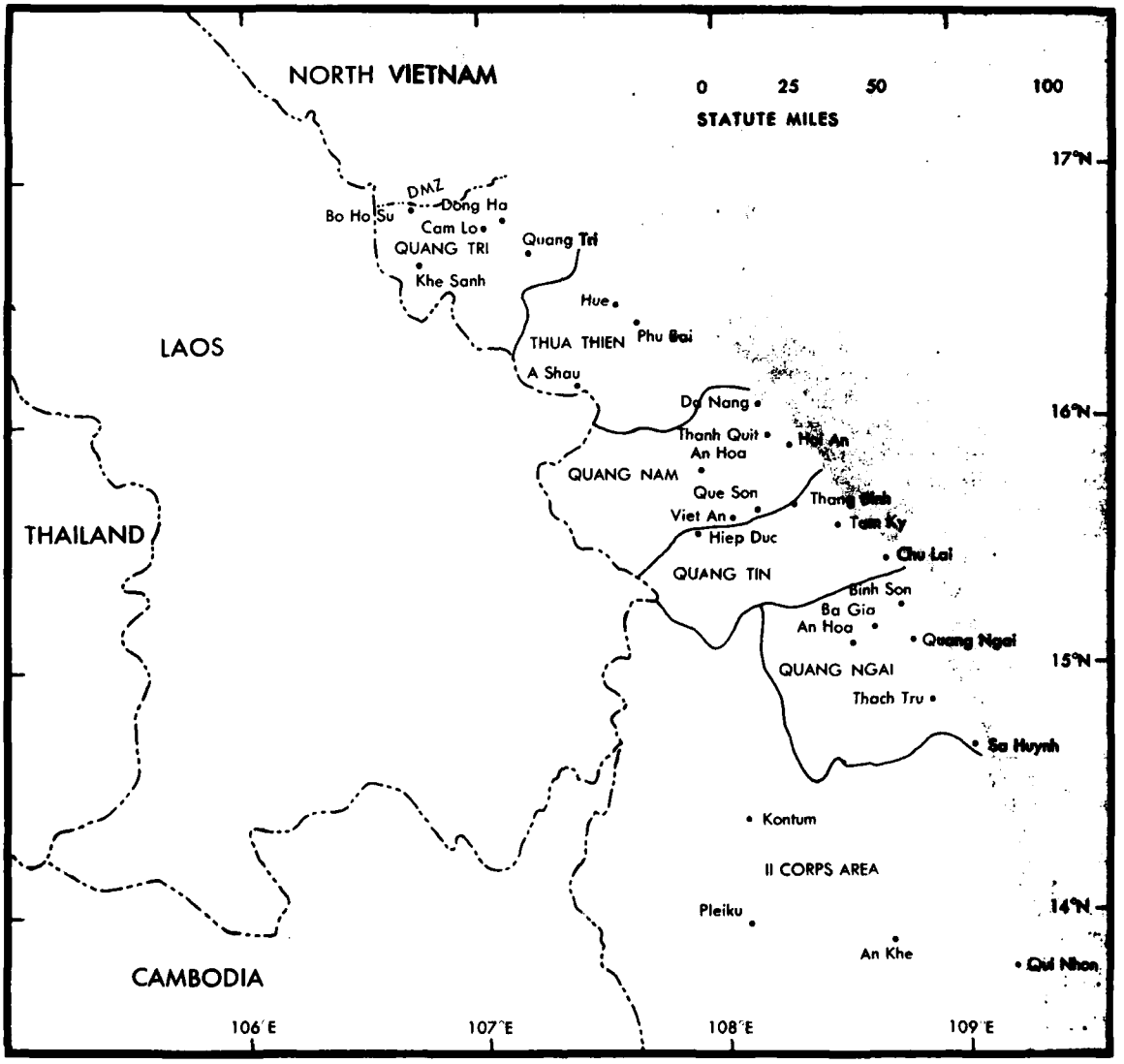
Beyond Da Nang, there was the larger problem of the I Corps Tactical Zone, which is both a military zone and a political region. I Corps is the northernmost of the four Vietnamese corps areas and it includes five provinces—Quang Tri, Thua Thien, Quang Nam, Quang Tin and Quang Ngai. Its northern boundary is the frontier with North Vietnam; the demarcation line, usually given as the 17th parallel, is actually a river, the Song Ben Hai, as far as the hamlet of Bo Ho Su, then, a straight line running west to where the boundaries of Laos, North Vietnam, and South Vietnam come together. The western border, shared with Laos, is the ridgeline of the Annamite Mountains. These mountains run some 750 miles southeastward out of China and average, along this stretch, 5,000 feet, but there are peaks that go up at least 8,500 feet (and some say 10,500 feet). It is these mountains that cause the reversal of the monsoon seasons. To the south, a spur of the Annamites runs down to the sea near Sa Huynh and forms the southern boundary of the I Corps area. From Sa Huynh north to the mouth of the Song Ben Hai is some 225 miles. The country is very slender here, varying from at most 70 miles in width to as little as 30. There are about 10,000 square miles in the I Corps Tactical Zone, something less than one-sixth the total area of South Vietnam.

The coastline is a series of promontories, sandy beaches, and minor deltas formed by the rivers that have their beginnings in the Annamites. The roads leading to the interior follow the valleys of these rivers and the most notable are Route 9, which moves west from

Dong Ha in the north across into Laos; and Route 14, which appears on maps in this book and in those of the Army Engineers as Route 4. Route 14, which begins at Hoi An, below Da Nang, bends west into the mountains, then drops south to Kontum, Pleiku, and beyond.

Not only is the I Corps area physically separated from the rest of South Vietnam, it is also culturally and historically somewhat different. Southwest of the Annamites is old Cochin China. The I Corps area is part of the Central Lowlands and old Annam.

In 1965 it was estimated that 2.6 million persons lived in the I Corps area (as compared to 16.5 million for all of South Vietnam). Up in the hills, there was a scattering of montagnards subsisting mainly on hunting, fishing, and slash farming, and in the towns and cities there were some Chinese, Indians, and others – mostly shopkeepers – but at least 85 per cent of the population was ethnically Vietnamese. Most of them lived along the coast and in the little alluvial valleys tucked between the knuckles of the mountains. The rural Vietnamese



tend to cluster together in hamlets—isolated houses are few, as are large towns—and most of them are either commercial fishermen or rice farmers. Nearly half a million tons of rice are produced annually in the five northern provinces.

Hamlets are the basic community unit. The next larger political unit is the village. (The term "village" is somewhat misleading; it is applied to a community more comparable to a township than to what we think of as a village.) Traditionally, the hamlets and villages have had a large degree of self-government and an old proverb says that the Emperor's law stops at the village gate. The villages are combined into districts, which are comparable to U. S. counties and are about the first level where the central government makes itself felt; districts, in turn, are the major divisions of the provinces.

I Corps' military boundaries followed the political boundaries. The tactical area of the 1st Division consisted of the two northern provinces of Quang Tri and Thua Thien. Its commander was Brigadier General Nguyen Van Chuan, an able and professional soldier, whose headquarters were at Hue. Although these two provinces are closest to the North Vietnamese border, conditions were measurably better in them than in the rest of I Corps area.

The tactical area of the 2d Division consisted of the two southern provinces of Quang Tin and Quang Ngai. This division was commanded by Brigadier General Hoang Xuan Lam, whose headquarters were at Quang Ngai city, and who was to outlast both Thi and Chuan.

By an arrangement formalized in September 1965, Quang Nam, the center province, was treated as a special sector, and garrisoned by the 51st Regiment, under the command of diminutive, dependable Lieutenant Colonel Nguyen Tho Lap, and by a number of separate battalions. Government troops controlled the city of Da Nang, Hoi An, the capital of Quang Nam Province, and very little else except for beleaguered district headquarters, whose garrisons were immobilized because the VC were roaming almost at will throughout the province.

Corps headquarters occupied a handsome French colonial compound just east of the airfield at Da Nang. It took no great imagination to hear the ghostly bugles of the French Expeditionary Corps sounding through the galleried, two-story buildings, freshly painted yellow with red-brown trim.

The Marines' area of responsibility, I Corps Tactical Zone, the northernmost of four corps areas into which South Vietnam is divided. Most of the combat has taken place on the coastal plain.

Besides commanding the I Corps, General Thi, controversial even then, was government representative, that is to say, military governor of the region. In Saigon, they called Thi the "Warlord of the North." Native to the region, having been born near Hue, he was then 42 years old. He had fought for the French in World War II, had been captured by the Japanese, and had escaped. Under Ngo Dinh Diem he had commanded the Airborne Brigade, and his favorite uniform was still the red beret and the purple-and-green camouflaged utilities of the paratroops. A ringleader in the 1960 attempted coup against Diem, he had gotten away to Cambodia, where he remained three years in exile. After Diem's demise he returned eventually to become commanding general of the 1st Division. General Nguyen Khanh was then CG I Corps. After Khanh became premier, Thi moved up to corps commander and, later, was one of the leaders who combined to force Khanh out of the government.

I Corps was authorized about 30,000 ARVN troops—regulars—of whom about 25,000 were present for duty, and 18,500 of the Regional Forces, of whom about 12,000 were present for duty. The latter were lightly armed provincial troops, and, at this time, they had no formation larger than a company. Also on the rolls were some 23,000 of an authorized 29,000 Popular Forces—the local militia, used in squad- and platoon-sized security forces for the hamlets and villages.

Two chains of command extended down from General Thi, one military, the other political. The military chain, of course, passed through his division and special sector commanders. The political chain passed through the provincial chiefs, who were appointed by Saigon, presumably on the recommendation and with the concurrence of Thi. It was not easy to find civilians qualified and willing to serve as chiefs of the provinces; hence, most of the chiefs were military, generally in the rank of lieutenant colonel. Next below the province chiefs were the district chiefs and they, perhaps without exception, were Army officers, usually in the grade of captain, sometimes of lieutenant.

Typically, the district headquarters was the remnant of an old French fort, surrounded by mud and bamboo breastworks, usually triangular or square in outline with a bastion at each corner, reminiscent of Vauban and the seventeenth century. These little forts were garrisoned with, perhaps, a company of Regional Forces, a platoon or so of Popular Forces, and, if they were very fortunate, a section of 105-mm. howitzers with regular

ARVN gunners. Dozens of these outposts were scattered throughout I Corps. Most often each controlled the ground within rifle shot of its fort, but very little more.

MOVE TO PHU BAI

The landing of the 9th MEB had brought the strength of the Marines in the Da Nang area up to about 5,000 men. On 11 April, BLT 2/3 (Lieutenant Colonel David A. Clement) which had been on Jungle Drum III, a combined counterinsurgency exercise in Thailand, off-loaded across Red Beach Two under a blazing sun, in contrast to the conditions when 3/9 had landed the month before.

The next day, a reinforced company from 2d Battalion, 3d Marines, was sent by helo 42 miles north to Phu Bai where, seven miles southeast of Hue, there was an airport and an important communications facility. On 14 April, after BLT 3/4 (Lieutenant Colonel Donald R. Jones) had arrived from Hawaii, the Marines moved into the Hue/Phu Bai area in strength.

Hue, halfway between Da Nang and the demarcation line, has a population of about 100,000, which makes it South Vietnam's third largest city. It is on the River of Perfumes, picturesquely named, but not suitable for
10 oceangoing shipping. It has no industry to speak of, but it has other values. For two centuries Hue was the imperial capital; there are the royal palace, the ancient tombs, the old citadel built by the French. Even the Viet Cong view the city with respect, and it has been remarkably free from physical depredations. There is, however, a mutual antipathy between Hue and Saigon. Hue is Annam, and Saigon is Cochin China. Hue remembers that when it was at the height of its imperial splendor, Saigon was still a fishing village. The militant Buddhists are strong in Hue, which is also the seat of the University, and in recent years the city has often been the starting point for political disaffection.

Meanwhile, on 10 April, VMFA-531 (Lieutenant Colonel William C. McGraw, Jr.) began arriving at Da Nang. Its F-4Bs (McDonnell "Phantom IIs") were the first fixed-wing Marine tactical aircraft to be shore-based in Vietnam.

ACTIVATION OF III MAF

On 3 May, Major General William R. Collins, CG, 3d Marine Divison, arrived at Da Nang with a small advance party. Three days after his arrival, 9th MEB was deactivated and the III Marine Expeditionary Force was established, along with 3d Marine Division (Forward). Ground elements were under 3d Marines (Colonel Edwin B. Wheeler); aviation elements under Marine Aircraft Group 16 (Colonel John H. King, Jr.).

The next day, 7 May, the designation III Marine *Expeditionary* Force was changed to III Marine *Amphibious* Force (III MAF). The change came about in this way: there had been one or two back-page news stories, datelined Saigon, pointing out that the word "Expeditionary" in 9th Marine Expeditionary Brigade was not apt to be popular with the Vietnamese, as it might call up memories of the French Expeditionary Corps. ComUSMACV asked the Joint Chiefs of Staff to give the III Marine Expeditionary Force a more neutral name. The JCS agreed but noted that designation of units was a service prerogative. Accordingly, General Wallace M. Greene, Jr., Commandant of the Marine Corps, looked over a list of possible designations. "III Marine Amphibious Corps" was a popular contender because of its famous World War II antecedents, but it was pointed out that, even though the Vietnamese used the word "Corps" to designate their own units, they might find it offensive as a U. S. designation. Thus, "III Marine Amphibious Force" was chosen.

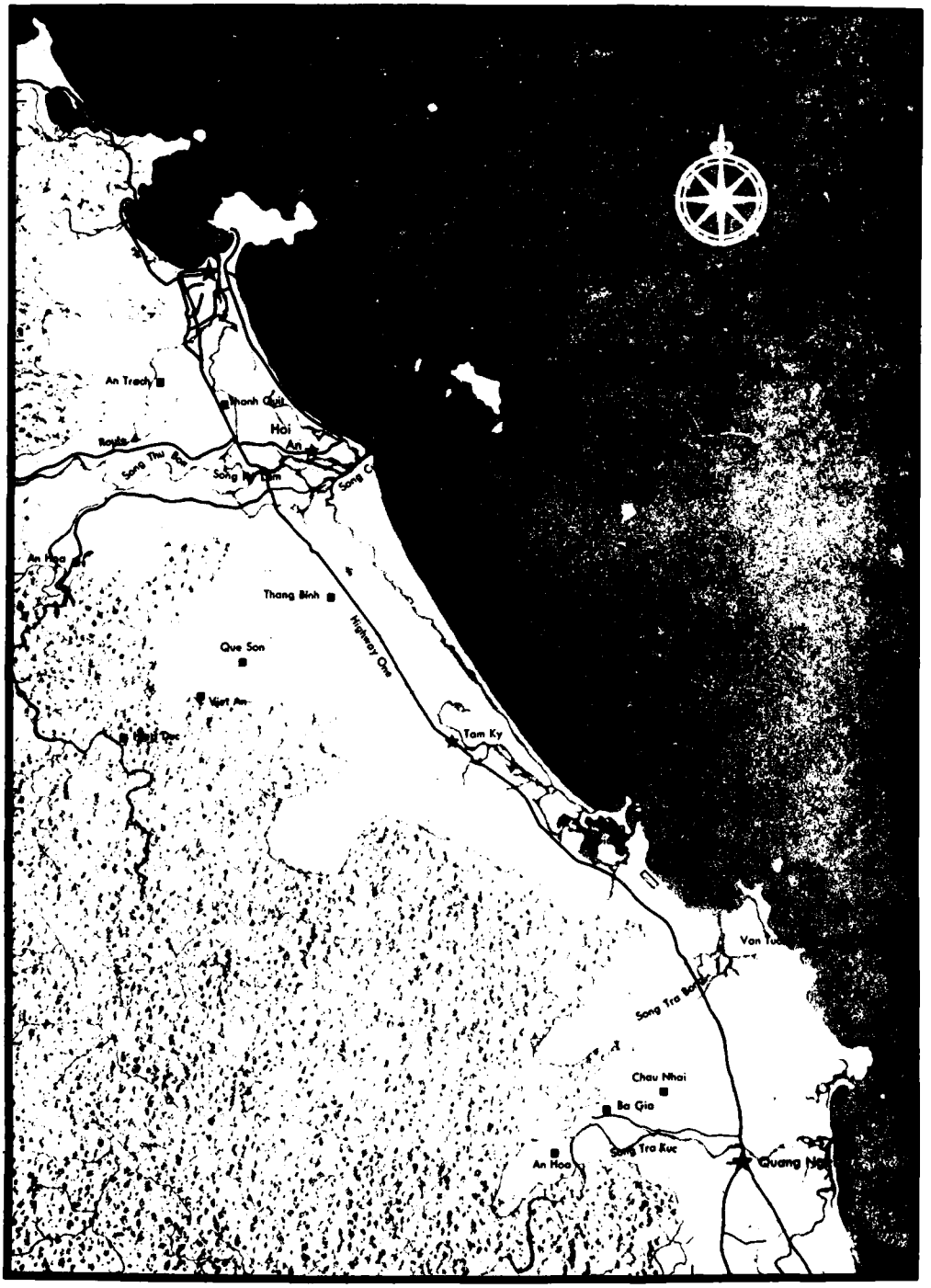
Meanwhile, the 3d Marine Expeditionary Brigade, which equally suddenly had its designation changed to 3d Marine Amphibious Brigade, was approaching the coast of South Vietnam.

Chu Lai Landing

On 10 March, the 6,000-man 1st Marine Brigade, based at Kaneohe and commanded by the Marine Corps' first air ace, Brigadier General Marion E. Carl, began loading out at Pearl Harbor aboard shipping that had arrived in February to lift the Brigade to California where it was to take part in Exercise Silver Lance. The Brigade's participation in the exercise was cancelled and the shipping held over: its destination was not California but Okinawa.

The Brigade, which included the 4th Marines (Colonel Edward P. Dupras, Jr.) and Marine Aircraft Group 13 (Colonel Ralph H. Spanjer), represented about one-third of the 3d Marine Division plus supporting aviation from 1st Marine Aircraft Wing. First elements sailed on 11 March, arriving at Okinawa on 19 March. Mean-

The fighting area, from just north of Da Nang to just south of Quang Ngai. The many scattered villages, divided into tiny hamlets, are where the war against the Viet Cong must be won. Route 4 on the maps in this book, and Route 14, discussed by General Simmons, are identical.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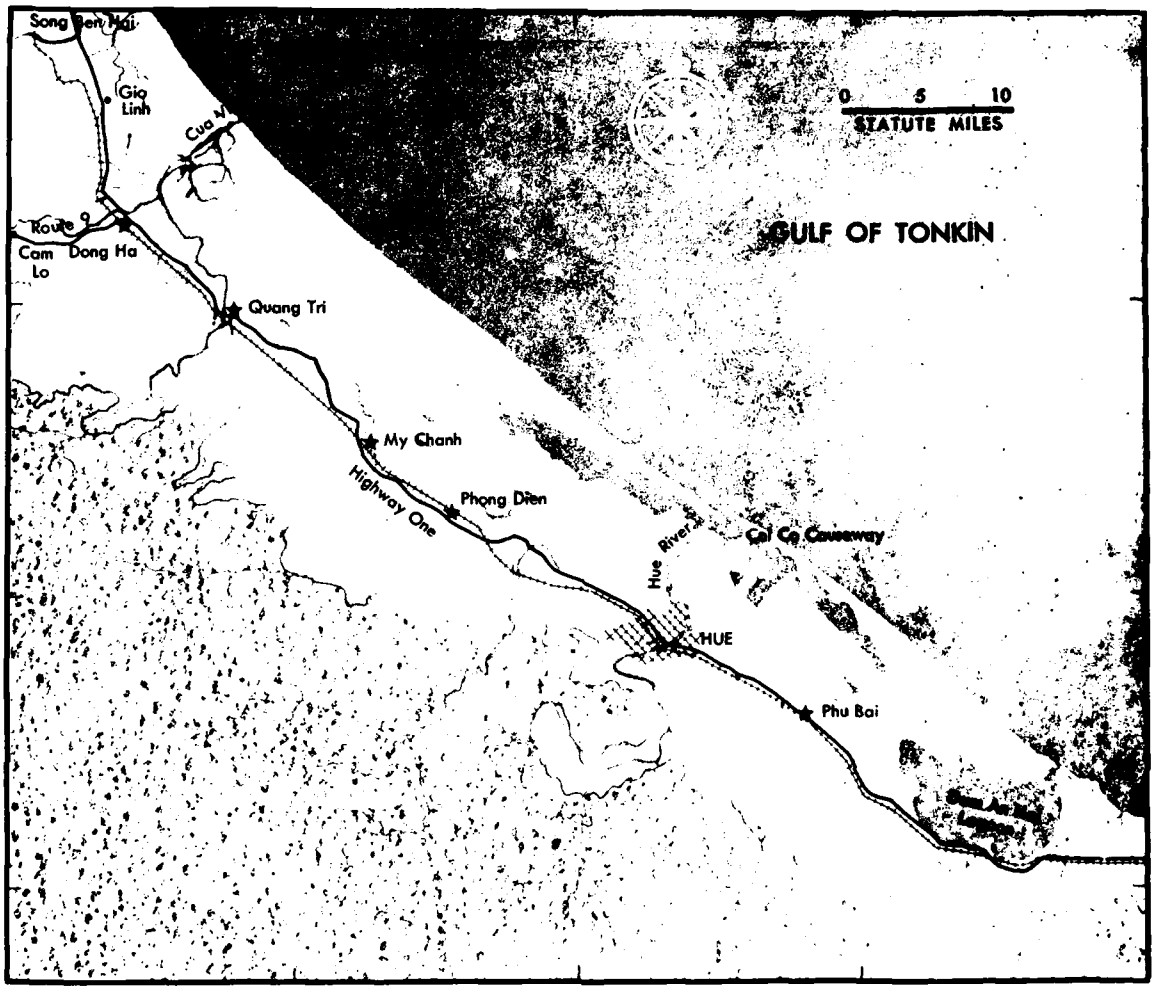

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while, on 14 March, the 3d MEB, General Carl commanding, was activated.

At 0800 local time on 7 May, 3d MEB made an unopposed landing at Chu Lai, a bare stretch of beach 55 miles southeast of Da Nang. The amphibious task force was again under Rear Admiral Wulzen, and the troop list included RLT-4 with BLTs 1/4 and 2/4, and HMM-161 (Lieutenant Colonel Gene W. Morrison). Other air support was provided by MAG-16 based at Da Nang. The troops of the 1st Battalion (Lieutenant Colonel Harold D. Fredericks) and of the 2d Battalion (Lieutenant Colonel Joseph R. Fisher) noted that the sand and pine trees were markedly similar to those on the beaches of North Carolina, but even the August heat of Camp Lejeune's pine barrens could not match the May temperatures of Chu Lai.

On 12 May, a third BLT, built around 3d Battalion, 3d Marines (Lieutenant Colonel William D. Hall) came ashore. This ended the amphibious operation: the 3d Marine Amphibious Brigade was dissolved and its parts were absorbed into III Marine Amphibious Force.

The immediate purpose of the landing was to secure the ground needed for an expeditionary airfield which could relieve some of the congestion at Da Nang. Seabees of NMCB-10 and Marine engineers went to work on the airfield site on 9 May. The deadline for the beginning of flight operations was 1 June. Some, but not all, of the difficulties in putting in a strip at Chu Lai

The fighting area, from just north of Da Nang to the DMZ. Toward the end of 1966, the center of gravity of the fighting in I Corps Tactical Zone moved into this section and ever since, the fighting here has been fierce.

had been foreseen. It was no surprise that the sand was bottomless, but the locally available laterite (a red clay made up of aluminum and iron oxides) did not live up to expectations as a stabilizer.

Nevertheless, the deadline was met. The field was officially opened at 0800 on 1 June when eight A-4 "Skyhawks" arrived from Cubi Point in the Philippines. The first plane was piloted by Colonel John D. Noble, commander of MAG-12, which was to operate from the field. The "Skyhawks" were from VMA-223 (Lieutenant Colonel Robert W. Baker) and VMA-311 (Lieutenant Colonel Bernard J. Stender). At 1329 on the same day, the first combat strike was flown when four A-4s were launched in support of the ARVN against targets seven miles southwest of Chu Lai. A third attack squadron, VMA-214 (Lieutenant Colonel Keith O'Keefe) arrived shortly thereafter.

New Commanders

General Westmoreland visited III MAF on 8 May and, besides seeing what the Marines were doing, he gave Major General Collins his concept of future operations: for the time being, the Marines were to continue with their defensive mission, consolidating and developing their base areas, which were now three—Da Nang, Hue/Phu Bai, and Chu Lai; then, when authorized, III MAF would be permitted to undertake limited offensive operations directly related to the defense of their bases; finally, it could be expected that a stage would be reached where III MAF would engage in more extensive offensive operations, if CG I Corps requested it to do so.

On 11 May Major General Paul J. Fontana arrived from Iwakuni, and established the headquarters of 1st Marine Aircraft Wing (Advanced) at Da Nang.

Something else that happened on 11 May was to have lasting consequences. Three companies of 2d Battalion, 3d Marines, searched and cleared Le My hamlet complex, eight miles northwest of Da Nang air base. Four hundred civilians were liberated from Viet Cong control, and a pilot model civic action program was begun.

Both General Fontana and General Collins were completing their Far East tours. On 24 May Brigadier General Keith B. McCutcheon assumed command of 1st Marine Aircraft Wing (Advanced), and on 30 May Major General Lewis W. Walt arrived to be the new Commanding General, III MAF, and CG, 3d Marine Division. General Collins was relieved officially at 0900, 4 June. Having been promoted on 10 May, just before he left Washington for Vietnam, Walt was the junior major general in the Corps. For the three years immediately before this assignment he had been the Director, Landing Force Development Center, Quantico.

As CG III MAF, General Walt was both a commander of a subordinate command and a component commander. As ComUSMACV, General Westmoreland exercised operational command over all forces assigned or attached to MACV, including III MAF. MACV, in turn, was a subordinate unified command under CinCPac. The commanding general of III MAF was also Naval Component Commander by virtue of *United Actions Armed Forces* (UNAAF), which says: "the Senior officer of each service assigned to a unified command and qualified for command by the regulations of his own service is the commander of the component of his service unless another officer is so designated by competent authority."

In this dual capacity, General Walt's position was comparable to those of General Westmoreland and Lieutenant General Joseph H. Moore. In addition to being ComUSMACV, Westmoreland was the Army Component Commander (Commanding General, U. S. Army Vietnam), while Moore was Commander, 2d Air Division, and Air Force Component Commander. 13

Naval Component Command functions in support of MACV were under the direction of CinCPacFlt. Of greatest pertinence at this time, was the responsibility of the Navy to provide logistic support to U. S. forces operating north of Quang Ngai, that is, in I Corps Tactical Zone. At first, the tasks of operating port facilities, unloading and moving cargo, and operating supply depots were performed by provisional elements of the Seventh Fleet and by III MAF. On 21 July 1965, Naval Support Activity, Da Nang, was established to discharge these responsibilities. Naval construction effort had earlier been consolidated under the 30th Naval Construction Regiment.

(General Walt remained Naval Component Commander until 1 April 1966 when Rear Admiral Norvell G. Ward, until then Chief of the Naval Advisory Group, MACV, was named Commander, U. S. Naval Forces, Vietnam. This expanded responsibility for Admiral Ward represented a consolidation of all Navy activities in Vietnam, including the Naval Advisory Group, Naval Support Activity, 30th Naval Construction Regiment.

and Task Forces 115 (coastal patrol) and 116 (river patrol). The III MAF, however, was specifically exempted from the command of U. S. Naval Forces, Vietnam.)

The III Marine Amphibious Force was, of course, a part of Fleet Marine Force, Pacific; hence military command, other than operational control, remained with CG FMFPac.

General Moore, in addition to being Commander, 2d Air Division (later Seventh Air Force), was also Deputy ComUSMACV for air operations. There was, therefore, a special relationship between General Moore and General McCutcheon, who as CG 1st Marine Aircraft Wing, was also Tactical Air Commander and Deputy CG III MAF.

Two separate air wars were being fought in Vietnam. The "in-country" war, or that limited to South Vietnam, was being directed by General Moore. The Tactical Air Control System (TACS) was almost identical with that used in Korea, except that greater use was being made of airborne Forward Air Controllers (FACs). The system included a joint operations center (JOC) and a joint tactical air control center (TACC), manned by both Americans and Vietnamese, in Saigon, and direct air support centers (DASCs) in each of the Corps areas.

14 Allowance was made for the fact that III MAF operated its own integrated system in support of Marine ground operations, which had first priority. Marine aircraft not needed for these missions were made available for support of other forces and were fitted into the country-wide control system in exactly the same manner as U. S. Air Force aircraft.

Marine aircraft were also made available for the "out-of-country" war. These operations were not controlled by General Westmoreland or General Moore—although they might suggest targets—but by Admiral U. S. Grant Sharp, CinCPac.

EXPANDING MISSIONS

On 30 May, with III MAF barely established, I Corps got its worst beating of the year. It happened along Route 5 which goes west from Quang Ngai parallel to the Song Tra Kuc. The 1st Battalion, 51st ARVN Regiment, was ambushed by the Viet Cong in a little hamlet a short distance from its base at Ba Gia. Of the 400 men in the battalion, only the three U. S. advisers and 65 South Vietnamese soldiers broke through. General Thi committed his last available reserves: one Ranger and one Vietnamese Marine battalion. In the confused fighting that followed, the 39th Rangers lost 108 men. General Thi, estimating his adversaries at five battalions, asked Saigon for two Vietnamese airborne battalions and the help of a U. S. Marine battalion. He got neither of those, but he did get Marine helolift and extensive close air support from VMFA-531. The fighting subsided, and friendly losses were counted at 392 killed, and missing; 446 rifles and carbines, 90 crew-served weapons lost: it was claimed that 556 Viet Cong were killed and 20 weapons captured. A disaster had been averted, but the question had been raised: under what circumstances would U. S. combat troops go to the aid of the South Vietnamese?

By this time, the first week in June, after three months of defensive operations, the Marines had suffered nearly 200 casualties, including 18 killed in action. It had become increasingly apparent that they (and farther south, at Bien Hoa, near Saigon, the newly-arrived 173d Airborne Brigade) were engaged in more than static defense. As early as 28 April, during a visit to Da Nang, the Commandant of the Marine Corps had told the press that the Marines were not in Vietnam "to sit on their ditty boxes," they were there to "kill Viet Cong."

In Washington, the press asked the State Department to redefine the U. S. military role in Vietnam. On 5 June, Robert J. McCloskey, speaking for the State Department, and indicating his statement had the approval of highest departmental officials, said:

"As you know, American troops have been sent to South Vietnam recently with the mission of protecting key installations there. In establishing and patrolling their defense perimeters, they come into contact with the Viet Cong and at times are fired upon. Our troops naturally return the fire

"It should come as no surprise therefore that our troops engage in combat in these and similar circumstances. But let me emphasize that the Vietnamese Government forces are carrying the brunt of combat operations. Those United States forces assigned as advisers to the armed forces of Vietnam remain in that capacity."

At that time, of the 51,000 American servicemen in Vietnam, some 16,500 Marines and 3,500 Army Airborne troopers had "defensive" missions; the rest might be said to be in an "advisory capacity."

Meanwhile, Ambassador Maxwell D. Taylor was in Washington for consultations. His resignation and replacement by Ambassador Henry Cabot Lodge were in prospect, but had not as yet been announced. President Johnson met with Taylor and his top political and military advisers. A meeting of the National Security Council, in itself a rare event, was held. It was obvious

that neither the air war, nor the ground war, nor the political war was going well. The original hope, that with Americans securing the major bases, the South Vietnamese could successfully carry the fight to the Viet Cong, was fast fading. With the coming of the summer monsoon (not in I Corps, but on the other side of the Annamites), various advantages would accrue to the Viet Cong. There was great concern over the Pleiku-Kontum area in the Central Highlands, where there were as yet no U. S. combat troops. There was talk now of the eventual commitment of 300,000, even 500,000, U. S. troops to Vietnam.

On 8 June the State Department issued a statement which was widely construed to mean that, in recent weeks, President Johnson had given General Westmoreland authority to order U. S. ground forces into offensive combat. On 9 June the White House came out with a statement which partially contradicted and partially confirmed the previous day's release. It said in part:

"There has been no change in the mission of United States ground combat units in Vietnam in recent days or weeks. The President has issued no order of any kind in this regard to General Westmoreland recently or at any other time. The primary mission of these troops is to secure and safeguard important military installations like the air base at Da Nang. They have the associated mission of . . . patrolling and securing actions in and near the areas thus safeguarded.

"If help is requested by the appropriate Vietnamese commander, General Westmoreland also has authority within the assigned mission to employ these troops in support of Vietnamese forces faced with aggressive attack when other effective reserves are not available and when, in his judgment, the general military situation urgently requires it."

The above statement was, of course, consistent with the instructions given by General Westmoreland to General Collins, and later repeated to General Walt.

"Army" Versus "Marine" Strategy

By this time, two supposedly conflicting "strategies" were being debated in the press. One strategy emphasized mobile operations: not only should U. S. troops go to the rescue of beleaguered SVN forces, but there should also be U. S. "search and destroy" operations, actively and aggressively seeking out the Viet Cong. The other, labeled the "ink-blot" strategy, held that U. S. forces should establish secure "coastal enclaves," such as Da Nang, and from these gradually reach out, in carefully conducted "clear and hold" operations.

The first strategy became known as the "Army" strategy, and the second as the "Marine" strategy. Each had its vociferous advocates who failed to see that the two strategies were not necessarily mutually exclusive. There were some critics who said that the Marines had become cautious and defensive-minded. It is true that at this time General Walt regarded the defense of Da Nang air base as his first and most important mission since the orders he had received so stated.

On 17 June, 1st Battalion, 9th Marines (Lieutenant Colonel Verle E. Ludwig) landed at Da Nang and assumed responsibility for the close-in security of the air base, relieving 3d Battalion, 9th Marines. Now at the end of its Western Pacific tour under the "transplacement" system then in effect, BLT 3/9 sailed for Okinawa, where its colors and unit designation would be transferred to a new BLT arriving from the States.

Just before dawn on 1 July the almost inevitable happened. A Viet Cong demolitions squad got through the barbed wire and onto the flight line on the east side of the runway and hit the south end of the field with mortar fire. Explosives and 57-mm. recoilless rifle fire destroyed two C-130s and one F-102, and damaged one C-130 and two F-102s. One U. S. Air Force airman was killed, and three Marines wounded.

The raiders had made their approach through the thickly populated area south and east of the field, an area where the ARVN was responsible for security. Up to the time of the 1 July attack, General Thi had been reluctant to permit Marines to operate in heavily populated areas. After it, however, and at least partly as a result of it, it was agreed that the Marine area of responsibility should be expanded southward and eastward. The headquarters of the 9th Marines (Colonel Frank E. Garretson) and 2d Battalion, 9th Marines (Lieutenant Colonel George R. Scharnberg) landed at Da Nang on 6 July and moved immediately to the south of the airfield, giving some depth to the defenses.

In July a Provisional Base Defense Battalion (Lieutenant Colonel William H. Clark) was formed by drawing on the personnel of the support and service units. Admittedly, this was a short-term measure which, if extended too long, would work to the detriment of the parent units, but it did provide manpower for the airfield perimeter. These measures helped, but did not solve all the problems of close-in security for the field.

Landing at Qui Nhon

In II Corps Tactical Zone, the military situation remained tenuous. About the middle of June General

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Westmoreland had asked General Walt to be prepared to deploy two Marine battalions to the Pleiku-Kontum area, if required, but the port of Qui Nhon presented a more immediate problem. There was an airfield there, and a substantial start had been made on creating an Army logistics base. Furthermore, at Qui Nhon, Route 19 strikes off at right angles from Route 1 and goes up through An Khe to Pleiku. Qui Nhon had to be held secure until Army troops could arrive.

On 1 July, the Seventh Fleet's Special Landing Force, then BLT 3/7 (Lieutenant Colonel Charles H. Bodley), supported by HMM-163, went ashore at Qui Nhon. On 7 July, BLT 2/7 (Lieutenant Colonel Leon N. Utter) landed and relieved BLT 3/7 which, the next day, went back aboard its shipping and reconstituted the SLF. Thus, 175 miles south of Da Nang and in II Corps area, a fourth Marine "coastal enclave" was created.

FACT-FINDING AND PRESIDENTIAL DECISIONS

On 8 July President Johnson formally nominated Henry Cabot Lodge to resume his post as Ambassador to Vietnam in place of Maxwell D. Taylor, who had submitted his letter of resignation. Defense Secretary McNamara announced that he and Lodge would leave shortly for Vietnam to meet with Ambassador Taylor and to bring their impressions up to date. This would be McNamara's sixth fact-finding trip to Vietnam. They arrived in Saigon on 16 July, and on 18 July visited I Corps and III MAF. The party included Ambassador Taylor, Deputy Ambassador U. Alexis Johnson, General Earle G. Wheeler, General Westmoreland, Assistant Defense Secretaries John T. McNaughton and Arthur Sylvester, and others of almost equal rank.

OFFICIAL PHOTOGRAPH BY GUNNERY SERGEANT R. F. HALLAHAN

Men of I Company, 3/9, on the road between Da Nang and Hill 327, the day after landing at Da Nang in March 1965. They are passing through "Dogpatch."

"The over-all situation continues to be serious," said McNamara in Saigon before he left for Washington. "In many respects it has deteriorated since 15 months ago, when I was last here."

Six hours after McNamara's return to Washington on 21 July, President Johnson and his chief advisers began a series of discussions designed to hammer out major decisions about U. S. military, political, and economic involvement in Vietnam.

After eight days of intensive review, President Johnson on 28 July outlined his decisions in a nationally televised press conference. U. S. military strength in Vietnam would be increased from 75,000 to 125,000 "almost immediately." (The 1st Cavalry Division (Airmobile) was then in process of loading out from Gulf Coast and southern East Coast ports.) The reserves would not be called up. Instead, the draft would be doubled from 17,000 to 35,000 each month, and voluntary enlistment programs would be intensified. After the build-up reached 125,000, additional forces would be sent to Vietnam as required.

Marine Manpower

Up to this point, the Marine Corps had supported the deployment of 25,000 Marines to Vietnam without increasing its authorized strength. The Corps had begun fiscal year 1965 with 190,000 Marines authorized, and as a step toward a pre-Vietnam goal of 206,000, an increase of 3,100 had been programmed and approved. So, at the time of the President's decisions, its authorized strength was 193,100.

Activation of the Organized Reserve would have given the Marine Corps an almost completely manned and trained 4th Marine Division and 4th Marine Aircraft Wing. But the Reserves were not to be called up. (As Secretary McNamara explained to the House Armed Services Committee, the call-up of the Reserves had been considered but rejected, because it was anticipated that operations in Vietnam would be drawn out and the Reserves would be a wasting asset if called up on a short-term basis under the President's emergency authority.) Further complications were that involuntary extensions of enlistment were limited to four months (and were to be terminated entirely by October 1966),

and that most of the junior officers were Reserves who, on completing their obligated service, went home.

In peacetime, replacements to the Western Pacific were built around a "transplacement" system. This was essentially a rotation, on a 13-month cycle, of infantry battalions and aircraft squadrons between the West Coast and the Western Pacific. It was decided that the transplacement of infantry battalions would cease after the deployment of 3rd Battalion, 5th Marines, in September 1965. Rotation of aircraft squadrons would be limited in the future to squadrons introducing new types of aircraft and the return of squadrons with older aircraft.

Cancelling transplacement made it necessary to "homogenize" the carefully "stabilized" battalions and squadrons. Otherwise, everyone in a unit having the same rotation date would have resulted in unacceptable peaks and valleys of experience. This smoothing-out process, nicknamed Operation Mixmaster, which involved the inter-unit transfer of thousands of Marines, took place over the next several months.

While there would be no more rotation of units between the West Coast and the Western Pacific, there would be a limited rotation of units between Vietnam and the Western Pacific reserve based on Okinawa (and some air units in Japan), and it would be possible to maintain the 13-month tour for individual Marines.

In August 1965, as a direct consequence of the President's decisions, an increase of 30,000 Marines (to 223,100) was authorized. This would provide three new battalions (communications, engineer, and military police) and two helicopter training squadrons. It was hoped that it would also permit the manning levels of deployed units to be brought up to full strength, and a bit to be added to the training base and personnel pipeline. Also authorized were an additional 2,500 spaces for the Organized Reserve (to a total of 48,000).

FOUR REGIMENTS

On 14 August the headquarters of the 7th Marines (Colonel Oscar F. Peatross) and BLT 1/7 (Lieutenant Colonel James P. Kelly) came ashore at Chu Lai. The 7th Marines, a 1st Marine Division regiment which had departed Camp Pendleton on 24 May, was now fully committed to Vietnam. Other 1st Marine Division units were on the way. Battalion Landing Team 2/1 was scheduled to become the SLF. In the middle of July, BLT 1/5 had moved to Kaneohe, where it had become the major ground element of the reconstituted 1st Marine Brigade. On 16 August the headquarters of the 1st Marine Division left Camp Pendleton, and on 24 August Major General Lewis J. Fields, the division commanding general, opened his forward command post at Camp Courtney, Okinawa, assuming also the responsibilities of Commander Task Force 79.

The posture of III MAF's infantry regiments, which would remain essentially unchanged from mid-August until the end of the year, was as follows:

—3d Marines, with its 1st and 2d Battalions, was west and north of Da Nang air base. 3d Marines also had under its operational and administrative command the 3d Battalion, 4th Marines, stationed at Phu Bai.

—9th Marines, with its 2d Battalion, was south of Da Nang, as was part of the 1st Battalion. The rest of the 1st Battalion was on the airfield itself. A new BLT 3/9 (Lieutenant Colonel Robert J. Tunnell), one of the last "transplaced" battalions, arrived at Da Nang on 15 August.

—4th Marines, with its 1st and 2d Battalions, and 3d Battalion, 3d Marines, was at Chu Lai.

—7th Marines, with its 1st Battalion, was also at Chu Lai. Its 2d Battalion was at Qui Nhon (now under operational control of Army's Task Force Alpha) and the 3d Battalion was at sea as the SLF.

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FOUR MARINE AIRCRAFT GROUPS

MAG-16, the veteran helicopter group, was at Da Nang air base, getting ready to move across the Tourane River to the new helicopter and light plane facility, originally called Da Nang East but later renamed, more solemnly, Marble Mountain Air Facility. One medium squadron was kept at Phu Bai in support of 3d Battalion, 4th Marines.

MAG-11 had come into country on 7 July and had taken over the fighter-bomber squadrons operating from Da Nang.

MAG-12 with its attack squadrons was at Chu Lai.

MAG-36, another helicopter group, was scheduled to come into Chu Lai on 1 September. One squadron was with 2d Battalion, 7th Marines, in Qui Nhon.

COORDINATING WITH I CORPS

On 30 July General Westmoreland paid General Walt a visit of more than routine interest. CG III MAF, said ComUSMACV, was to have operational control of all U. S. ground elements in the I Corps Tactical Zone; most notably, he would have operational control of the I Corps Advisory Group. This would provide an effective bridge between U. S. combat forces and the

advisory effort. General Westmoreland also told General Walt that he had a "free hand" in the conduct of operations in ICTZ, and he expected Walt, in coordination with General Thi, to undertake larger offensive operations at greater distances from base areas.

General Walt reminded ComUSMACV that III MAF was still bound by the letter of instruction issued early in May; that the restraints were such that operations beyond base areas were essentially limited to "reserve /reaction" forces, a kind of rescue operation to be conducted if and when South Vietnamese forces were in serious trouble. General Westmoreland said these restraints were no longer realistic, and invited General Walt to rewrite the instructions, working into them the authority he thought he needed, and promised his approval.

On 3 August, General Walt, by formal message, advised General Westmoreland that III MAF stood ready to undertake offensive operations. On 6 August, ComUSMACV granted authority for such undertakings, and designated General Walt as Senior Adviser, I Corps.

Colonel Howard B. St. Clair, U. S. Army, was redesignated Deputy Senior Adviser and continued as Commanding Officer, I Corps Advisory Group. This group was essentially a U. S. Army unit, although there were some 60 U. S. Marines and about an equal number of Australians serving as advisers.

Guidelines provided by General Westmoreland emphasized integration of Vietnamese and U. S. effort. A prime problem, however, was that there was no jointure of U. S. and Vietnamese command at any level. Without some kind of unity of command, how could two separate, distinct military structures, each of corps size, operate in the same corps area? Part of the answer was the designation of Tactical Areas of Responsibility (TAOR). In these TAORs, which radiated out from Marine bases, III MAF had primary (but not absolute) tactical responsibility and could conduct operations with a minimum of coordination with I Corps.

Various factors affected extension of these TAORs:

First, General Thi and I Corps had to permit the expansion. Initially, as mentioned earlier, he had been reluctant to allow Marines to operate in populated areas. This had been overcome, but still each increase in the size of a TAOR had to be carefully negotiated so as to be of greatest mutual benefit.

Second, growth of the TAORs was limited by the strength of III MAF; as the Force grew so could TAORs be expanded.

Third, the limits of a TAOR could not be the forward edge of the Marine positions. There had to be adequate room out front for reconnaissance, maneuver, and the use of supporting arms. (This requirement sometimes caused problems. Uninformed observers tended to regard everything enclosed by a TAOR as being under firm Marine control, which often was far from the case.)

Fourth, there had to be a judgment as to the capability of the Vietnamese to fill in behind the advancing Marines, and to pacify what had been cleared.

In August the 4th Marines (Colonel James F. McClanahan), in company with elements of the 2d ARVN Division, tried a number of small-scale offensive operations west of Chu Lai. As field exercises against negligible resistance, they were moderately successful, but they showed conclusively that, without unity of command, operations could best be described as "coordinated," not as "combined." Several things could be done to help make this coordination work.

First, the problems of coordination could be simplified by giving the Americans and the Vietnamese separate and distinct zones of action for their maneuver elements.

Second, fire support had to be coordinated by a single agency, so there was agreement on a single Fire Support Coordination Center.

Third, American advisers with Vietnamese units had to act not only as advisers but also as III MAF combat liaison officers.

Operations Starlite and Piranha

For some time there had been reports of an enemy concentration south of Chu Lai. On 15 August, III MAF developed hard intelligence indicating that the 1st Viet Cong Regiment, some 2,000 strong, had moved into prepared positions on Van Tuong Peninsula, 15 miles south of Chu Lai airstrip. This information, plus the fortuitous circumstance that RLT-7 with its 1st Battalion had just arrived at Chu Lai, and the Special Landing Force (BLT 3/7) was close by, made possible Operation Starlite, the first regimental-sized U. S. battle since the Korean War. On 17 August, 2d Battalion, 4th Marines (Lieutenant Colonel Joseph R. Fisher) and 3d Battalion, 3d Marines (Lieutenant Colonel Joseph E. Muir) were assigned to RLT-7.

On 18 August Operation Starlite was launched. It was a converging movement, using a river crossing in LVTs from the north, a helicopter-borne assault on the west or inland side, and an amphibious landing with lift provided by Task Force 76 on the southeast beach of the

Van Tuong Peninsula. By 24 August, at least 964 VC had been killed, an attack against Chu Lai had probably been frustrated, and the 1st Viet Cong Regiment had been rendered combat ineffective. A more lasting result was that the Viet Cong were disabused of any illusion that they could defeat the Marines in a stand-up battle. Moreover, this and later amphibious operations by the Marines forced the Viet Cong away from the coastal peninsulas where they had previously found sanctuary from their enemies.

Operation Piranha came close on the heels of Starlite—it began on 7 September. This time the target was Batangan Peninsula, eight miles southeast of Van Tuong, where a build-up, possibly remnants of the 1st VC Regiment, was reported to be taking place, and which was reputed to be a place of entry for the seaborne infiltration of supplies for the Viet Cong. Operation Piranha was a coordinated operation; sizable elements of the 2d ARVN Division and some Vietnamese Marines participated. It took longer to plan than did Starlite; the intelligence was not quite so good; results not so spectacular. Nevertheless, in the three-day fight the Marines—RLT-7 again—counted 183 Viet Cong killed in action, 66 of them in a single cave. The South Vietnamese scored an additional 66 VC kills.

Base Defense Coordination

While these heartening battles were going on south of Chu Lai, progress of sorts was also being made in the defense of Da Nang.

There had been another setback on 5 August when the VC raided the Esso storage terminal at Lien Chieu, destroyed two JP-4 storage tanks and damaged three other tanks, resulting in a loss of nearly two million gallons of fuel. Lien Chieu is inside Da Nang Harbor, on the south shore of Hai Van Peninsula. There are good hydrographic reasons for the terminal being there, but at this time it was outside the Marine TAOR, and its defense had been entrusted to two understrength Regional Force companies. To protect it adequately, it would have been necessary to bring the entire Hai Van promontory into the Marine TAOR. This would have taken at least a reinforced rifle company, and that many men could not be spared at the time. However, subsequent to the attack, a Marine platoon was moved to the Nam O bridge, which crossed the Song Ca De about one mile down the road from Lien Chieu. The five-span steel structure was a much threatened target of the Viet Cong.

On the Da Nang airfield there were the Provisional Base Defense Battalion and part of the 1st Battalion, 9th Marines. About half of the 1st Battalion had been siphoned off by the increased involvement of the 9th Marines south of the Song Cau Do. On 16 August the newly arrived 3d Battalion, 9th Marines, relieved the 1st Battalion on the airfield.

Lack of unity of command continued to be a major barrier to effective security. As early as 29 May, COMUSMACV had named CG III MAF as the Special Area Coordinator for Da Nang. This assignment included responsibility for coordinating physical security, but the terms of reference were geared to an earlier situation: advisory and noncombatant. If General Walt was expected to carry out his mission of defending the airfield, he needed clear-cut authority over not only his own forces but, as far as security was concerned, over the other tenants. However, as base commander, Lieutenant Colonel Hung, Commanding Officer, 41st Tactical Wing, VNAF, had over-all responsibility for defense of the field and he could not have relinquished it, even if he were so inclined.

Once again, "coordination" had to be substituted for "command." Lieutenant Colonel Clark, who commanded the Provisional Base Defense Battalion that was formed in July, was named Base Defense Coordinator, and was later relieved by Colonel George W. Carrington, Jr. Defense of the airfield was divided into two parts: III MAF assumed responsibility for tactical defense of the field, which involved the continued assignment of an infantry battalion to man perimeter positions and to patrol outwards: the other part of the defense was internal security and, in accordance with accepted military practice, each tenant unit was charged with its own internal security. A Joint Defense Communication Center was established to keep the tenants in contact with one another.

This new arrangement got its first testing as soon as it was activated. There was a series of minor probings the night of 17 August. The system seemed to work, for the VC did not get through the wire.

On 21 August operational control of 3d Battalion, 9th Marines, as Air Base Defense Battalion, was passed directly to III MAF, and on the 22nd, the Provisional Base Defense Battalion was dissolved and its members returned to parent units. From then until the following spring, battalions of the 9th Marines were rotated to serve six-week or two-month tours as Air Base Defense Battalion—an assignment that was less dangerous, but in many ways more tedious and exacting, than combing the rice paddies south of the river.

Raid on Marble Mountain and Chu Lai

China Beach, across the Tourane River and east of Da Nang proper, curves in a gentle arc from Monkey Mountain seven miles south to Marble Mountain. The 1st Battalion, 9th Marines, was operating in the vicinity of the latter eminence, an authentic monolith of black-veined, gray marble. (A moribund tourist trade revived with the arrival of the Marines and a brisk traffic in marble ash trays ensued.) Between Marble Mountain and Monkey Mountain, China Beach was filling up with support facilities: Seabee battalion camps, the Naval Hospital, and the Marble Mountain Air Facility, now occupied by MAG-16 (Colonel Thomas J. O'Connor) and its helicopter squadrons.

On the night of 27 October, a Viet Cong raiding force quietly assembled in a village northwest of MAG-16 and adjacent to a Seabee camp. Apparently, it came by boat, although whether downstream along the river or south across Da Nang Bay is not clear. Under cover of 60-mm. mortar fire which engaged the Seabees heavily, at least four demolitions teams moved out to attack the airfield and the hospital. Forty-one VC were killed, but six armed with bangalore torpedoes and bundles of grenades got onto the MAG-16 parking mat, where they destroyed 24 helicopters and damaged 23. Raiders also got into the nearly completed hospital across the road and did considerable damage. Three Americans were killed, and 91 wounded; fortunately, most of the wounds were minor.

The same night, about 15 raiders slipped through the lines onto Chu Lai airstrip. Most of them were killed or captured before they reached MAG-12's flight line, but two VC did get to the A-4s with satchel charges, destroying two and damaging six before they were cut down.

It was a bad night at Marble Mountain and at Chu Lai but, when morning came, it appeared that a larger attack against Da Nang itself had been averted. During the night a Viet Cong battalion 18 kilometers west of Da Nang was brought under artillery fire and dispersed. About the same time, eight miles south of Da Nang, near Thanh Quit, a VC company stumbled into a Marine squad-sized ambush, ran into a sheet of fire, and fell back, leaving 15 dead on the trail.

MONSOON

Expected to begin in September in I Corps, the monsoon season did not come on in force until October. By November the rain was averaging an inch a day. The largest problems were logistic. The roads, optimistically surfaced with laterite, dissolved into thin red soup. Storage areas flooded. The northeast winds roughened the sea and made unloading at Da Nang and Chu Lai increasingly difficult. Construction schedules fell behind as engineers and Seabees were forced to switch to repair and maintenance.

The Korean Division had arrived at Qui Nhon. Amphibious shipping was going to lift BLT 2/7 out of Qui Nhon in the first week of November; the battalion was to be released from army control and taken to Chu Lai to rejoin its parent regiment. Then it was planned to move 3d Battalion, 3d Marines, to Da Nang in the same shipping.

Blue Marlin

It seemed logical to combine the above moves into a two-phase amphibious operation. Thus, Operation Blue Marlin got under way on 7 November, when BLT 2/7 loaded out at Qui Nhon in the shipping of Task Group 76.3 (Captain William J. Maddocks). At Chu Lai, TG 76.3 took aboard the 3d Battalion, Vietnamese Marine Brigade, then proceeded north. On 10 November, the Marine Corps' birthday, they landed northeast of Tam Ky, about 18 miles north of Chu Lai and a third of the way between Chu Lai and Da Nang. Sea conditions were marginal. Both the *Paul Revere* (APA-248) and the *Windham County* (LST-1170) parted their anchor chains. The Marines went ashore in LVTs and LCMs. The surf was rough but there was no opposition other than the elements. Moving inland, the force turned southward astride Highway One, and joined a motorized column sent up to Tam Ky from Chu Lai. Resistance was negligible, but the coastal area from the water's edge west to Highway One and from Tam Ky, capital of Quang Tin province, south to Chu Lai at least had had the benefit of a thorough sweep.

Phase I of Operation Blue Marlin achieved an historic first: the Vietnamese Marines participated in their first combined amphibious landing with the U. S. Marines. Along with the Vietnamese Airborne Brigade, the Marine Brigade was classed as having the best fighting battalions in the South Vietnamese service. It had been much used as a mobile strategic reserve, so much so, in fact, that its amphibious potential had not been fully developed. The Vietnamese Marines were formed after the departure of the French in 1954, with the advice and assistance of the U. S. Marines. Originally a

Two Marines of M Company, 3/7, entering a cave about 25 miles southwest of Da Nang during a search and destroy mission 22 December 1966.

river-type landing force, it had grown to a brigade of five infantry battalions, an artillery battalion, and an amphibious support battalion.

Phase II of Blue Marlin began with the loading-out of 3d Battalion, 3d Marines (Lieutenant Colonel William H. Lanagan, Jr.) from Chu Lai. They landed on 16 November south of Hoi An, 25 miles below Da Nang, and were joined by two Ranger battalions and two special ARVN "strike" companies. This area, south of the Song Gua Dai, mostly fishing villages, was known to be heavily infested by the Viet Cong and to be the source of much harassment against Hoi An, capital of Quang Nam province (and site of ancient Fai Fo, where the Portuguese in the 16th century had established a trading station). In the three-day operation that ensued 25 VC were killed, 15 captured.

Hiep Duc

On the night of 16/17 November, while Blue Marlin was in progress, the Viet Cong attacked and overran Hiep Duc, a district capital, 25 miles west of Tam Ky. Hiep Duc is in the valley of the Song Tranh: to the north, Nui Chom Mountain goes up to 944 meters, to the south, Nui Da Cao goes to 670 meters. The monsoon fills the valley with rain, and even when Da Nang and Chu Lai are fairly clear, the clouds driven in from the sea hang on the mountains. There were no good radio contacts with the survivors of Hiep Duc, but there were reports that the attackers were from the 1st Viet Cong Regiment; that this regiment after Starlite had withdrawn to the mountains of western Quang Tin province, had refilled its ranks, and was emerging under cover of the monsoon to do battle once again.

I Corps counterattacked with two battalions of the 5th ARVN Regiment, which were helilifted into the area in one of the most difficult of such operations yet attempted. The weather was bad and the enemy were using heavy antiaircraft machine guns—the first time these had been encountered in any numbers. On 17 November MAG-16 and MAG-36 lifted in 788 ARVN troops. Twenty

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OFFICIAL PHOTOGRAPH BY LANCE CORPORAL J. L. MCCLORY

of the participating 30 helicopters were hit by ground fire. Covering air support flown by MAG-11's F-4s and MAG-12's A-4s dropped 14 tons of bombs and fired 512 rockets and 1,532 rounds of 20-mm. The next day, 463 more ARVN troopers were lifted in.

Hiep Duc was retaken, but there was a sad and all-too-frequent epilogue. General Thi estimated that a garrison of at least a battalion would be needed to hold the town. He could not spare it. The 5th Regiment was returned to Quang Ngai. Hiep Duc was abandoned.

Throughout I Corps, other garrisons and outposts were being hit. Some held and some did not. The outlines of the VC monsoon strategy were clear. Against the South Vietnamese forces, that strategy was to concentrate on the destruction of isolated outposts: to strike with locally superior forces, holding out a reserve with which to ambush would-be rescuers. Outlying district headquarters, with their Popular Force and Regional Force garrisons, were to be eaten up, one by one, and then perhaps a move would be made against the provincial capitals. The aim was not to seize and hold terrain, but to inflict as much damage and embarrassment as possible; to wear down the ARVN as they marched in a dozen directions to counter VC moves.

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Against the Americans, the VC strategy was to avoid the risk of a stand-up battle. There would be no large-scale attacks against major bases, but if small units—fire teams, squads, even platoons and companies—were unwary, they would be surprised and struck. And to show that the American defenses were not impervious, carefully prepared and skillfully executed commando raids would be made against rewarding targets—raids such as those already executed against Lien Chieu, Marble Mountain, and Chu Lai.

Thach Tru

On 22 November the triangular fort at Thach Tru, on Highway One, 29 kilometers south of Quang Ngai, was hit. This time, however, the enemy overstepped himself. The fort was not manned by an underarmed Popular Force or Regional Force contingent. The headquarters and one company of a Ranger battalion were in the fort itself, another company was on a nearby commanding hill, and a third company was in the village. In a brutal fight that began in the last hours of darkness and lasted until mid-morning, the enemy succeeded in getting through the belts of barbed wire and over the palisade into the fort.

Fortunately, the USS *O'Brien* (DD-725) (Commander Charles S. Christensen) was within range when the firefight started and, at noon, she was joined by the USS *Bache* (DD-470) (Commander Arthur R. Hasler, Jr.). The battalion commander of the Rangers credited naval gunfire with breaking the back of the attack. (In 26 hours, the *O'Brien* fired 48 tons of ammunition, a total of 1,392 rounds of 5-inch at an average rate of one round every 66 seconds.)

Marine air came on station in the morning, and, in spite of abysmal flying weather, hammered at the enemy, who had taken up defenses in the hills west of Thach Tru. The 3d Battalion, 7th Marines, which had been standing by, ready to go into Hiep Duc, if necessary, began arriving by helo in mid-afternoon, while the 2d ARVN Division started a mechanized column down the road from Quang Ngai. The Seventh Fleet moved the Special Landing Force into position offshore, ready to land on two hours' notice. At nightfall, the USS *Fletcher* (DD-445) (Commander Robert L. Morgan) relieved the *Bache*.

Seventy-one of the defenders of Thach Tru were killed, 74 wounded, and 2 missing. But the attackers paid a much higher price: 175 dead, 3 prisoners, and an unusually large bag of weapons—5 75-mm. recoilless rifles, 9 machine guns, 6 60-mm. mortars, 2 submachine guns, and 114 rifles.

Next morning, 23 November, 3d Battalion, 7th Marines, attacked to the west, driving a holding force out of the first line of hills, killing three, for sure, and capturing eight weapons including a machine gun. From captured weapons and prisoners, it became evident that the force attacked was not Viet Cong, but a PAVN formation from North Vietnam. Later, it was decided that it was the 95th Regiment of the 325th Alpha Division.

REASSESSMENT BY McNAMARA

On the afternoon of 28 November, Defense Secretary McNamara arrived once again in Saigon. With him, as before, were the JCS Chairman, General Wheeler, and Assistant Secretaries McNaughton and Sylvester. At a brief news conference, McNamara told the press that accelerating infiltration by North Vietnamese regulars would clearly require counteraction. He then had a five-hour meeting with Admiral Sharp, General Westmoreland, and MACV's principal staff officers and subordinate commanders, including General Walt. The core of the discussion was the entrance of PAVN formations into overt combat, the rate of infiltration of these units from the north, and the corresponding increase in U. S. forces which would be required to counter it. It was

accepted that there were seven PAVN regiments in the country; the presence of an eighth was considered "probable," and of a ninth "possible."

The fight at Thach Tru had solidly established the presence of elements of the 325th Alpha Division in lower Quang Ngai province. With less certainty, it was believed that there was at least one PAVN regiment operating south of the DMZ in Quang Tri province, and, perhaps, elements west of Hue in Thua Thien province.

The next day, 29 November, McNamara spent some two hours in further discussion, then he and his party made a quick tour of Vo Dat, An Khe (this was shortly after the Cavalry's first big victory at Iadrang Valley), and Camranh Bay, before departing for Guam and an inspection of the B-52s based there.

Five Tasks for III MAF

General Walt had recommended to ComUSMACV that the number of Marine infantry battalions be increased from 12 to at least 18, and the supporting fighter-attack squadrons to eight. He based these recommendations not so much on the threat of North Vietnamese formations, as on estimates of what was required to pursue effectively a balanced strategy in I Corps. As III MAF saw it, this strategy involved five fundamental tasks:

First, to defend and continue to develop secure base areas.

Second, to support the operations of the Vietnamese I Corps.

Third, to conduct offensive operations against the Viet Cong.

Fourth, to be prepared to provide forces to support contingencies elsewhere in South Vietnam.

The fifth task, less military, but every bit as important, involved what, for the moment, was being called "rural construction." Successive euphemisms have served as formal substitutes for the word "pacification." "Revolutionary development" succeeded "rural construction." Informally, many Vietnamese and Americans continued to use "pacification."

If there was a fundamental difference at this time between Army and Marine thinking on how the war should be prosecuted, it lay probably in differences of opinion as to just how large a role U. S. forces should play in pacification. The Marine Corps was more sanguine about the chances of American success in this role; it had gotten off to an earlier start, and had developed a number of procedures and techniques that showed promise.

(It should be remembered that up to this time, most of the Army's combat operations had been in the thinly populated highlands against Main Force and North Vietnamese formations. Later, when the Army operated in more heavily populated areas their methods pretty much paralleled those of the Marines. Conversely, as will be shown later, when the North Vietnamese crossed the DMZ into I Corps in strength, an increasing percentage of Marine forces had to be deployed against them, to the detriment of the pacification effort.)

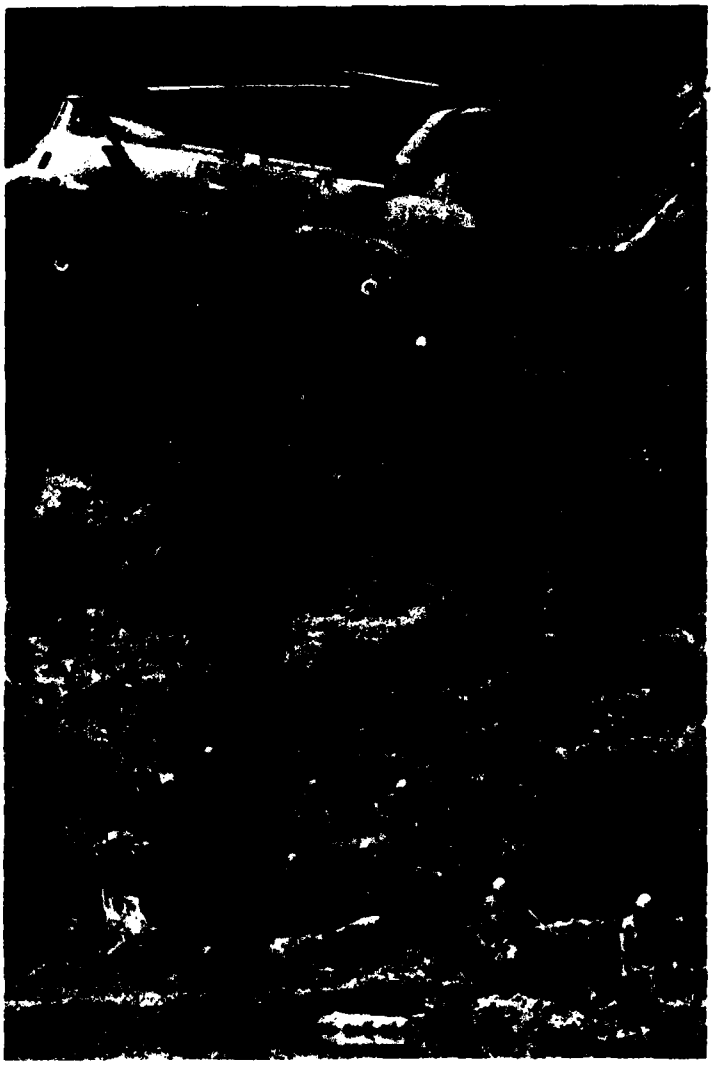
Pacification, Marine Style

Some of III MAF's optimism stemmed from early successes at Le My. On 19 June 1965, for example, some 350 rice farmers from farther up the Song Ca De Valley had voluntarily come into the protected hamlet. Le My rapidly developed into a modest showplace. On their tour of Le My, visitors to Da Nang (and there were many; everyone—political, military, theatrical, journalistic, business, and international personages—found reason to visit Da Nang) got a sand-table orientation, met the village officials, saw the dispensary, the school, and the new market place.

For a while, pacification appeared remarkably simple: you liberated a hamlet or village from VC domination, provided it with a shield of security, and nurtured and encouraged the renascence of governmental control and institutions with a sincere and carefully thought-out program of civic action. While this seemed to work well in the thinly populated, generally pro-government area west of Da Nang, which was the 3d Marines' zone of action, it did not work so well, or at least the results were not so dramatically apparent, south of Da Nang in the 9th Marines' zone of action. The spinal cord of the latter zone was Highway One running south. Fifteen miles below Da Nang, it crosses the Cua Dia (or Thu Bon or Ky Lam, the river changes its name every few kilometers). There, Route 14, which starts at Hoi An, runs along the north bank of the river, intersects Highway One, and then continues inland. A thin belt of territory along the highway and the eastern section of Route 14 was under government control; all the rest of the zone—rich ricelands, where two crops a year are harvested—was dominated by the Viet Cong. The area, eventually assigned to the 9th Marines, is heavily populated, having some quarter of a million people.

Golden Fleece

From 1 September until mid-October, when the rains



OFFICIAL PHOTOGRAPH BY SERGEANT RICHARD GROSCOST

CH-46 helicopter of squadron HMM-265 hovers over Marine riflemen during an operation near An Hoa in Quang Nam Province on 2 December 1966. Notice how steep the mountain slope is.

began in earnest, the 9th Marines conducted Operation Golden Fleece, designed to save the rice harvest from the exactions of the Viet Cong. Golden Fleece consisted of high-density, small-unit patrolling, many night ambushes, and cordons of Marines to protect the rice harvesters. A sizable part of the harvest was saved from deflection to the enemy. The term "Golden Fleece" became a generic one; it was applied to subsequent operations by III MAF for protection of the rice harvest.

By October, the 9th Marines had cleared one-third of the way to Hoi An—the half of Hoa Vang district that lay south of the Song Cau Do, nine villages in all. Then came the real test: the pacification of that area.

By the end of the month, the chief of Quang Nam province—at that time, the vigorous and brilliant Lieutenant Colonel Tung—had completed his planning for the two-phase Ngu Hanh Son program (also called the Five Mountain program, or the Nine Village program). A trained government cadre of 350 men, enough for five villages, was available. Phase I, which was to be completed by the first of the year, would be the pacification of the five villages west of Highway One. Phase II would be the pacification of the four villages east of the highway. Popular Forces would be recruited, trained, and organized for the security of the district. In accordance with the formula of one squad for each hamlet and one platoon for each village, nearly 1,000 men would be required; less than 100 were available. Until the Popular Forces were ready, security would be provided by the 59th Regional Force Battalion, specially formed of five companies, one for each of the villages of Phase I. The program began on 1 November 1965.

As III MAF saw it, the Marines' job was to provide the environment, the circumstances, the outer shield of tactical defense, and some of the material resources needed to make the program work.

Staff Reorganization

To improve its coordination of civic action efforts, III MAF underwent a fairly radical revision of staff responsibilities. By doctrine, "civil affairs" were the responsibility of G-1; "psychological operations," the responsibility of G-3. But in Vietnam, four-fifths of "psychological operations" were concerned with relations with the populace, not with tactical operations, and "civic action" meant a much more direct contact with the local people than did the traditional "civil affairs."

Therefore, III MAF created a new general staff section, G-5, to coordinate all civic action programs, except medical assistance, which remained the province of the Force Surgeon. The 3d Marine Division followed suit and established a Division G-5, and the regiments and battalions, whose civil affairs and psychological warfare functions had been assigned to officers as additional duties, moved toward having full-time S-5s. Sev-

eral young platoon leaders, having completed their Vietnam tours, voluntarily extended to fill these challenging civic action billets.

To improve coordination with other U. S. agencies supporting pacification in I Corps, the Joint Coordinating Council had been formed on 30 August. Among the members were the Deputy Senior Adviser, I Corps; the Regional Director, USOM: the Refugee Representative, USOM; the Senior Field Representative, JUSPAO; and the G-5, III MAF. On 28 October, General Thi appointed a personal representative to sit with the Council. Later, General McCutcheon, as Deputy CG III MAF, was named permanent chairman. In addition to the parent council, there were a number of supporting committees: Public Health, Public Safety, Agriculture and Fisheries, Education, and so on, with both U. S. and Vietnamese membership.

Security of the Hamlets

It was recognized that, in spite of all these arrangements, pacification would not work without adequate security; the Viet Cong would see that it did not, by assassinating and kidnapping village and hamlet officials, burning schools, and tearing down, both psychologically and physically, whatever the government of South Vietnam, with the help of the Americans, attempted to build.

The III MAF had recognized early that the key to the kind of security that was needed was an effective, grassroots gendarmerie--self-defense at the hamlet and village level. This was no great revelation. Established doctrine for the Popular Forces was sound. So was the rule-of-thumb formula: a squad of PF for each hamlet, a platoon for each village. The difficulty was that the PF program wasn't working out the way it was intended.

At the root of that failure was the fact that the Popular Forces were at the bottom of the priorities list in the Vietnamese armed forces. For example, no one who was eligible for service in the Army of Vietnam could enroll in the Popular Forces. Furthermore, pay was low—1,200 piasters or less than ten dollars a month; weapons were scarce, usually limited to carbines and grenades; uniforms were often promised, but seldom delivered. (Many of the Popular Forces had the dismaying but unavoidable habit of wearing the peasant's traditional black pajamas, the uniform usually worn by the Viet Cong. Recognition of the PF under these conditions was sometimes fatally difficult. In desperation, officers sometimes briefed patrol leaders and pilots in words to this effect: "If you can see them, they are Popular Forces; if you can't see them, they are Viet Cong.")

Under these circumstances, it is no wonder that the Popular Forces tended to become urbanized rather than rural—it was much safer and more comfortable in Da Nang; that many of the units became the personal bodyguards of the village or district chiefs, and offered little or no protection to the constituents; and that some units and individuals existed on the pay rolls but could not be found on the ground.

The surprising thing was that certain Popular Force units were as good as they were. Throughout the summer and fall they had shown that, properly trained and properly led, they could fight well and bravely. Their combat losses attested to this.

Combined Action Companies

At Phu Bai, the base from which 3d Battalion, 4th Marines (Lieutenant Colonel William W. Taylor), was operating, an effective rapport with the surrounding hamlets had been established. During the summer, a "Joint Action Company" was established (later the name was changed to the more accurate "Combined Action Company" or "CAC"). A provisional platoon of hand-picked Marine volunteers, under Lieutenant Paul R. Ek, who spoke Vietnamese, was formed and given intensive training, not only in advanced counter-insurgency techniques, but also in Vietnamese language, history, customs, and military and governmental organization. One Marine squad, with a Navy corpsman attached, was then assigned to each of five Popular Force platoons.

These Marines entered into the life of the village where they were assigned, and became an integral part of its defenses. To the Popular Force platoons they could offer training in weaponry and tactics, and effective communications—vital for supporting fires or reinforcements; and to the communities involved, they offered a very real Marine-to-the-people civic action program, including medical aid.

At Phu Bai the Combined Action Company worked because the circumstances there were right for it, and General Chuan, CG of the 1st ARVN Division, gave it his interested and active support.

While informal reciprocal arrangements were being worked out elsewhere, the first full-fledged expansion of the Combined Action Company concept took place at Da Nang in January 1966. The 3d Battalion, 9th Marines, now commanded by Lieutenant Colonel Taylor, who had been transferred from Phu Bai, was the Air Base Defense Battalion. Drawing on his Phu Bai

experience, Taylor organized a second Combined Action Company. This new company paired off a Marine squad with each of seven Popular Force platoons located in the area roughly surrounding the air base. The quality of patrolling out to the limits of mortar range around the airfield improved immediately.

Harvest Moon

After the Vietnamese government forces withdrew from Hiep Duc in late November, the Viet Cong moved eastward into the Phuoc Valley, and the government garrisons at Viet An and Que Son came under pressure. To remove this pressure and, hopefully, to entrap the enemy, suspected of being the 1st Viet Cong Regiment reinforced with North Vietnamese heavy weapons units, a coordinated operation, Harvest Moon, was planned.

The scheme of maneuver was for an ARVN column to move into the Phuoc Valley from Thang Binh, a town on Highway One, about midway between Da Nang and Chu Lai. A lateral road going along the valley floor and linking Thang Binh, Que Son, Viet An, and Hiep Duc was to be the axis of advance. After the ARVN had developed a contact, two U. S. Marine battalions would be helilifted to the rear of the enemy. A third Marine battalion would be held in reserve.

Headquarters of the 5th ARVN Regiment, with its own 1st Battalion on the left of the road, and the 11th Ranger Battalion on the right, moved out on the morning of 8 December, and marched six kilometers without incident. There was a halt for lunch; the march was resumed; and at about 1330, the 11th Rangers found themselves semi-encircled and under heavy, close-in attack. The battalion commander went down, badly wounded, and was hit a second time as he was carried out on the back of the American adviser. In half-an-hour, the 11th Rangers were out of action and moving to the rear. The 1st Battalion, 5th ARVN, did a right face but could not get across the road. At 1434 Marine helicopters lifted 1st Battalion, 6th ARVN, into the Rangers' position, and the Viet Cong broke contact.

Next morning, 1st Battalion, 5th ARVN, south of the road, was hit hard by the VC; the regimental commander, who, the previous month, had bravely fought his way back into Hiep Duc, was killed, and the battalion was driven south and east.

At this point, the Marine battalions entered the battle. The 2d Battalion, 7th Marines (Lieutenant Colonel Leon N. Utter), landed seven kilometers west of the line of contact, and the 3d Battalion, 3d Marines (Lieutenant Colonel Joshua W. Dorsey, III), was helilifted southeast of the original battle area to take the pressure off 1st Battalion, 5th ARVN. Next day, 10 December, 2d Battalion, 1st Marines (Lieutenant Colonel Robert T. Hanifin, Jr.)—which was the Special Landing Force—came in by helicopter against heavy resistance, and landed about midway between the two Marine battalions already committed.

Control headquarters for the operation was Task Force Delta (commanded, first, by Brigadier General Melvin D. Henderson, and later by Brigadier General Jonas M. Platt), which had set up its command post, along with a bobtailed artillery battalion, at Que Son. General Lam, CG of the 2d ARVN Division, a figure familiar to the Marines in his black beret with silver badges, tanker's jacket, and swagger stick, first established his field headquarters at Thang Binh, but later moved in side-by-side with General Platt.

The Marines started moving against the southern rim of the valley, while the ARVN moved to the northern rim. Between the 12th and 14th of December, B-52s made four strikes, the first in direct support of Marine operations, and the Marines were much impressed by the precision of the bombing patterns and their neutralizing effect.

By 16 December, VC resistance had faded away, and the 3d Battalion, 3d Marines, started marching out to the northeast. By 18 December, it was out of the valley. The 2d Battalion, 1st Marines, followed in trace, and was out by 19 December. Meanwhile, 2d Battalion, 7th Marines, a Chu Lai battalion, marched 23 miles to the east and at Ky Phu, west of Tam Ky, ran into an attempted ambush. The VC got the worst of it, with 105 counted dead. The Chu Lai Marines continued on and were also out on Highway One by 19 December. At dusk, the Viet Cong tried a small ambush, were promptly eliminated, and the operation was over. The tally was 407 VC dead, and 13 crew-served weapons, 95 individual weapons, and many stores (including an amazing amount of paper and uniform cloth) taken from a base area uncovered on the reverse slope of the ridge south of Que Son.

The Special Landing Force (2d Battalion, 1st Marines, and Medium Helicopter Squadron 261) reembarked. It had had three busy months. Before being landed in Harvest Moon, it had made amphibious raids against the coast at Vung Mu, Ben Goi, Tam Quan, Lang Ke Ga, and Phu Thu. On 20 December, the force went on up to Phu Bai and relieved 3d Battalion, 4th Marines, which rotated back to Okinawa.

NEW YEAR

Harvest Moon was over before the Christmas holiday. The Viet Cong said they would observe a 12-hour truce from 1900 Christmas Eve until 0700 Christmas Day. The United States and South Vietnam improved on this; they said they would observe a 30-hour truce from 1800 on the 24th until midnight on the 25th. The Marines were unenthusiastic about the truce and distrustful of Viet Cong observance. There were three small-scale attacks in the Da Nang and Chu Lai TAORs, and it wasn't clear whether or not the VC were observing the longer truce period. The Marines had hoped to signal the end of the truce with a maximum artillery barrage at 1201, 26 December. In this they were disappointed; the barrage had to be cancelled because, at the last minute, the truce was extended, for reasons not clear to the Marines, until later on the morning of the 26th.

As 1965 ended, there were 180,000 U. S. troops in South Vietnam, and 38,000 of them were Marines.

There was another truce in January, at the time of the lunar New Year—"Tet" as it is called in Vietnam—a holiday to be taken more seriously than Christian Christmas. This time the Viet Cong said they would undertake no offensive operations from midnight 19 January until midnight 23 January. Saigon's counterproposal was for a truce from noon 20 January until 1800 on 23 January. The Year of the Snake was ending and the Year of the Horse was beginning, by tradition a good year for martial enterprise. An old man, asked for his thoughts on the subject, stroked his beard and said, "There will be a lot of fighting and killing."

Better observed than the Christmas truce, the Tet truce was not seriously violated in I Corps, but close on the heels of the holiday, shortly after midnight on 25 January, there was a shelling of Da Nang air base and Marble Mountain Air Facility by 81-mm. and 120-mm. mortars. No aircraft were hit, but two Americans and two Vietnamese were killed and a number wounded. The disturbing thing was the use of the 120-mm. mortar. This caliber of weapon had been encountered in I Corps only once before, in an attack against Khe Sanh Special Forces camp, near the Laotian border.

First Marine Division

As a result of Secretary McNamara's November visit and subsequent, more detailed conferences held at CinCPac in January, the introduction of the 1st Marine Division into Vietnam was approved. The 7th Marines were already there, as were the 1st and 2d Battalions, 1st Marines. The remainder of the 1st Regiment and the 5th Marines were scheduled to arrive at the rate of about one BLT per month through June.

In March, with two-thirds of the 1st Marine Division in place, Major General Lewis J. Fields would move his flag forward to Chu Lai. The zone of action assigned to the 1st Marine Division coincided with that of the 2d ARVN Division: the southern two provinces of I Corps, Quang Tin and Quang Ngai.

Double Eagle

Another Task Force Delta operation began on 28 January 1966. This was Double Eagle, the most ambitious yet tried, and coordinated not only with I Corps but with II Corps and the U. S. Army's Field Force Victor. The target was the 325A PAVN Division, believed to be straddling the border between the provinces of Quang Ngai and Binh Dinh.

The 3d Battalion, 1st Marines (Lieutenant Colonel James R. Young), and 2d Battalion, 4th Marines (Lieutenant Colonel Rodolpho L. Trevina), came across the beach, 20 miles south of the town of Quang Ngai and close to Thach Tru, scene of the November fight with the PAVN, in the largest amphibious operation of the war up to that time. Commodore Maddocks was Commander, Amphibious Task Force. His flagship was the USS *Paul Revere* (APA-248), and there were two other attack transports, an attack cargo ship, three LSTs, two LSDs, an LPH, a cruiser, a destroyer, and two auxiliaries.

The Special Landing Force—now 2d Battalion, 3d Marines (Lieutenant Colonel William K. Horn), and HMM-363 (Lieutenant Colonel James Aldworth)—was in floating reserve, aboard the USS *Valley Forge* (LPH-8), the *Monticello* (LSD-35), and the *Montrose* (APA-212). On D plus One, 2d Battalion, 3d Marines, was helilifted from the Amphibious Ready Group to an objective area five miles west of the landing beaches.

On D plus Four, 2d Battalion, 9th Marines (Lieutenant Colonel William F. Donahue, Jr.), moved from a ready position at Quang Ngai airstrip into the mountains northwest of the beach, in exploitation of the first of three B-52 strikes.

It was a hopscotch kind of battle; contacts were intermittent and seldom solid. It soon became apparent that most of the North Vietnamese had moved south into Binh Dinh province. There—in an operation known first as Masher and, later, to sound less bellicose, as Operation White Wing—the 1st Air Cavalry Division and II Corps troops fought a larger battle north of Bong Son and on into An Lao Valley.

There were reports that the enemy was concentrating west of Tam Ky, north of Chu Lai. Phase I of Double Eagle ended (VC body count 312) on 19 February, and Task Force Delta moved by helicopter and truck to the new battle area to begin Phase II, which lasted until 1 March; the body count was 125 VC.

HONOLULU CONFERENCE

The Honolulu Conference, the meeting between President Johnson and Premier Ky, held from 6 to 8 February 1966, ended with a declaration which emphasized winning the war through a combination of military action and expanded civic reforms. The joint communique issued at the end of the conference included the statement:

"The leaders of the two governments received comprehensive reports on the intensified program of rural construction. The Government of Vietnam set forth a plan for efforts of particular strength and intensity in areas of high priority, and the President gave directions to insure full and prompt support by all agencies of the U. S. Government."

Two of the points agreed upon as essential for rapid progress were:

"Continued emphasis by both Vietnamese and all forces on the effort to build democracy in the rural areas —an effort as important as the military battle itself."

"Concentration of resources—both Vietnamese and American—in selected priority areas which are properly related to military plans so that the work of rural construction can be protected against disruption by the enemy."

Ngu Hanh Son Program

Hoa Vang district, south of Da Nang, was a "selected priority area," and the Ngu Hanh Son program planned in October was consistent with the principles enunciated in the Declaration of Honolulu. But a combination of factors had made progress in the first five villages disappointingly slow: the original schedule was over-ambitious; the government cadre was undertrained; there was dissension and a rapid turnover among the Vietnamese leaders charged with the program; liaison between Vietnamese security elements and surrounding Marine units was imperfect; and, finally—perhaps most important of all—there was the concentrated effort of the Viet Cong to make the plan fail.

In late February and early March, the program began to pick up momentum. One reason for that was that Lieutenant Colonel Lap, commander of the 51st ARVN Regiment, was placed in over-all charge of both the security and rural construction aspects of the program. A compassionate man, brought up in the classical Confucian ethic, Lap had an affinity with the people and a maturity of judgment which previously had been lacking.

A second reason was that the 9th Marines, charged with supporting the program, had evolved a number of new techniques. The most useful technique, and the one which eventually attracted the greatest attention, was the one called County Fair. The first County Fair, a kind of dress rehearsal, was held from 24 to 25 February in Phong Bac hamlet, just northwest of where the Phong Le bridge crosses the Song Cau Do. Many such operations followed. Just as "Golden Fleece" became associated with the protection of the rice harvest, so "County Fair" became a generic term and was used throughout III MAF's area. U. S. Army units operating in II and III Corps subsequently developed a similar operation, and called it "Hamlet Festival."

County Fair

A "County Fair" was essentially a fairly elaborate cordon and search effort combining U. S. and Vietnamese military and government elements. The objective was to break down the infrastructure of the Viet Cong, the local force cells of five to ten guerrillas who, when main forces left or were driven from an area, remained behind and continued to dominate the life of the hamlets. Before an area could be considered "pacified," or ready for "rural construction," there had to be a scrubbing action to get rid of these hamlet guerrillas. The procedure for a County Fair went something like this:

During darkness, Marines, or sometimes Marines and Vietnamese regulars, would surround the target hamlet, in order to seal it off: to prevent any Viet Cong in the hamlet from slipping out, and at the same time, to prevent their being reinforced from the outside. At dawn, the inhabitants were informed by loudspeaker and leaflets that the hamlet was to be searched, and that all residents must leave their homes and move temporarily to an assembly area.

Things were made as pleasant as possible at the assembly area. District and village officials met with the people (sometimes for the first time), and explained to them what was taking place. Other officials checked identity cards and conducted or verified the hamlet census. The first rule of population control is to know who is living where. In Vietnam, this is the sort of thing

that can best be done by Vietnamese. It is almost impossible for Americans to do it effectively.

A temporary dispensary would be set up to give the villagers medical and dental help, and they were assured that such aid would be continued. Something of a picnic atmosphere was sought: a community kitchen was established, candy and soda pop were distributed to the children, and entertainment was provided—movies, live entertainers, often either a Marine band or drum and bugle corps.

The villagers were held in the assembly area at least overnight. Meanwhile, the hamlet was being given a thorough going-over by the search party. This was another thing that could best be done by the Vietnamese. In almost every case, arms caches, propaganda materials, or the Viet Cong themselves were found. Most often, the VC were found underground and were pulled out or blasted out by the search party. If they elected to run, or tried to escape, as they sometimes did, they had to contend with the cordon.

Hard Fighting

In February and March, there was a series of hard-fought, violent actions.

Operation New York was a crisply executed response to an I Corps request for help. It began about 2000 on 27 February, when 2d Battalion, 1st Marines, was alerted that 1st Battalion, 3d ARVN Regiment, was being hard-pressed by the 810th Main Force Battalion of the Viet Cong northeast of Phu Bai. The first wave of a night helicopter assault was off the ground at Phu Bai at 2320; by 0200 three companies were in the objective area. The Marines attacked in line across the Phu Thu Peninsula; the VC positions were well-prepared and in depth, and the operation continued with intermittent contact until 3 March. Final count was 122 Viet Cong killed in action; 6 crew-served weapons and 63 individual weapons captured.

On the evening of 3 March, CG Task Force Delta, Brigadier General Platt, was told that elements of the 2d ARVN Division had made a successful contact a few miles northwest of Quang Ngai city, and prisoners they had taken reported the 36th (also called the 21st) PAVN Regiment in the vicinity of Chau Nhai village. Next morning, Operation Utah began when Marine helicopters covered by Marine close air support took the ARVN 1st Airborne Battalion to a point southwest of Chau Nhai (3) (hamlets within the same village often bear the same name and are numbered for convenience). The landing zone was hot with automatic fire, a Marine F-4 was lost, but the Vietnamese battalion landed and went into the attack in good order. It was followed in mid-morning by 2d Battalion, 7th Marines (Lieutenant Colonel Leon N. Utter), which moved into the fight on the right flank of the 1st Airborne.

In mid-afternoon, 3d Battalion, 1st Marines (Lieutenant Colonel James R. Young), was landed north of the action. The 2d ARVN Division was also putting in additional battalions, and the last opening in the ring was closed on the morning of 5 March when 2d Battalion, 4th Marines (Lieutenant Colonel Paul X. Kelley), landed to the south. In mid-afternoon of that day, the Task Force reserve—the headquarters of 1st Battalion, 7th Marines (Lieutenant Colonel James P. Kelly), a company from 2d Battalion, 7th Marines, and a company of ARVN scouts—took up blocking positions six kilometers southwest of Binh Son. Most of the action was over by dawn on 6 March. It had been a short, hard fight. The Marines claimed 358 killed, the ARVN 228; in all, about a third of the 36th PAVN Regiment's original strength was destroyed.

On the night of 9 March the Special Forces camp at A Shau, near the Laotian border, garrisoned by 17 Green Berets and about 400 various Vietnamese, came under heavy attack by, perhaps, three North Vietnamese battalions. ("Special Forces" camps were garrisoned by CIDG—Civilian Irregular Defense Group—citizen militia recruited for the most part from local Montagnard tribes. The Vietnamese camp commander was advised by detachments from both U. S. and Vietnamese Special Forces.)

It turned out to be an ugly business. Many of the irregulars wouldn't fight. Worse, some went over to the enemy, and turned their guns on the defenders. The brunt of the attack was borne by the Americans and some native troops flown in the day before as reinforcements.

The fight went on for two days; the defenders were backed into a corner of their camp. In marginal flying weather typical of the tail end of the monsoon season, Marine air and the Air Force went all out; close air support, resupply, medical evacuation. The Marines lost three UH-34s and one A-4C. There was no saving the camp. On 11 March evacuation began. There was panic among the irregulars. Some tried to rush the helicopters, had to be cut down by U. S. Green Berets and Marine crewmen. Evacuation continued on 12 March: in all, 12 Green Berets and 172 Vietnamese were located and lifted out.

Another call for assistance from the Vietnamese triggered Operation Texas. An Hoa, an outpost 30 kilo-

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meters northwest of Quang Ngai, garrisoned with a Regional Force company, came under heavy attack on 19 March. On the morning of 20 March, 3d Battalion, 7th Marines, and the 5th ARVN Airborne Battalion landed within a kilometer of the fort, while 2d Battalion, 4th Marines, landed seven kilometers farther south. The enemy, who appeared to be Chu Lai's old adversary, the 1st Viet Cong Regiment, was sandwiched in between; in four days of fierce fighting 405 VC died.

Operation Indiana was a repetition of the pattern. On 28 March, the 3d Battalion, 5th ARVN Regiment, was heavily engaged in almost the same location as the Utah battleground. General Lam asked for help. The 1st Battalion, 7th Marines, landed to the rear of the enemy; 69 VC were killed, 19 weapons were captured.

THE STRUGGLE MOVEMENT

General Walt had left Da Nang on 10 February for a month's temporary additional duty in Washington—including consultations with the Joint Chiefs of Staff and others, and the happy surprise of being nominated to the rank of lieutenant general by the President. When he returned to his command in Da Nang in mid-March, he found his counterpart, General Thi, in serious trouble.

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On 10 March, there was a meeting of the National Leadership Committee, the military junta which had ruled since the previous June with Ky as premier. Thi, a member of the committee, was present. The other nine generals present voted to oust Thi on grounds of insubordination. Nguyen Van Chuan, the able commanding general of the 1st ARVN Division, was named I Corps commander.

Pro-Thi, anti-government demonstrations began to bubble up in Saigon, Da Nang, and Hue. On 13 March most of the shops in Da Nang closed down for half a day in protest at the dismissal of Thi. Longshoremen did not report for work. Students at the university in Hue went out on strike, and high-school students in Hue and Da Nang copied them. The leaders of the agitation began to call themselves the Military and Civilian Struggle Committee, shortened later to "Struggle Force." On the 15th, a general strike virtually shut down Da Nang.

On 1 April, Lieutenant General Pham Xuan Chieu, third ranking member of the government hierarchy, was detained by Buddhist students in Hue. He was quickly released, but his detention was accepted as a signal that the Saigon government no longer prevailed in I Corps. Two days later, 3,000 members of the 1st ARVN Division marched through the streets of Hue, behind their Division band, demanding the overthrow of the Saigon government.

In Saigon, Ky announced that he would use loyal troops to "liberate" Da Nang and Hue. On the night of 4–5 April he airlifted three Vietnamese Marine battalions—distinctive in their green- and black-striped utility uniforms—to Da Nang. The exact temper and inclination of the I Corps regular troops was not certain. The 1st ARVN Division seemed entirely in the Buddhist camp. The 51st Regiment and the Ranger battalions in and around Da Nang were divided. The troops in Hoi An were strongly pro-Struggle Force. Quang Ngai and the 2d ARVN Division were relatively quiet.

On 9 April, American noncombatants were evacuated from Hue and Da Nang. This was done smartly, some 750 being moved out by Marine helicopters under protection of U. S. Marine ground elements.

The same day, a mechanized column of Struggle Force adherents started up toward Da Nang from Hoi An. The column was cut in half at Thanh Quit bridge, some nine miles below Da Nang, by Company F, 9th Marines, who contrived to have a truck break down and block the bridge. There were similar, smaller confrontations between the U. S. Marines and both sides of the Vietnamese struggle. The mission of the Marines was simply to provide insulation, to do what could be done to prevent unnecessary bloodshed by either side.

This same day, 9 April, the reserved Major General Chuan resigned as Corps commander and was replaced by the more flamboyant Lieutenant General Ton That Dinh. The crisis seemed to be subsiding. One of the Vietnamese Marine battalions left Da Nang for Quang Ngai. The other two battalions returned to Saigon on 12 April.

But it soon became obvious that Dinh's sympathies were on the Buddhist side. On 15 May, Ky airlifted two battalions of Vietnamese Marines and two battalions of Airborne troops into Da Nang air base. I Corps headquarters was surrounded, Dinh was deposed and replaced by Brigadier General Huynh Van Cao. There followed a week of confused, nasty fighting in and around Da Nang.

On 17 May, anti-Ky ARVN forces took up positions on the east side of the Tourane River bridge. Vietnamese Marines took positions on the west side, then crossed the bridge. General Walt prevailed upon General Cao to withdraw the Vietnamese Marines. The anti-government forces then promptly moved forward and mined

Four Vietnamese women are questioned by an interpreter just after they were taken from a ditch from which heavy sniper fire had been directed at Marines, on 6 December 1965.

OFFICIAL PHOTOGRAPH BY THOMAS E. JAYNES, PHI, U. S. NAVY

the bridge. General Walt now negotiated in turn with the Struggle Force, got them to remove the demolition charges, and got both sides to agree to turn the security of the bridge over to a company of U. S. Marines.

On 21 May, a government plan to attack an ammunition dump in east Da Nang, almost across the road from III MAF headquarters, brought a counterthreat from the Struggle Force that they would blow up the dump (and possibly a good part of east Da Nang with it) if the attack was not called off. Again General Walt negotiated, and after a two-day parley, U. S. Marines moved in and took over security of the dump.

Meanwhile, the Struggle Force still held the center of the city. Cao was not moving fast enough to suit Ky, and he was replaced by Brigadier General Du Quoc Dong. The hard spots of Buddhist resistance were the three principal pagodas, and when they were taken, about 23 May, active resistance in Da Nang collapsed.

Attention shifted to Hue. For the second time, American noncombatants were evacuated. On 31 May, rioters sacked and burned the U. S. Consulate. The highway south of Hue was strewn with curious barriers; family altars were hauled out into the road to halt the northward march of Ky's tanks and personnel carriers. The road blocks were more picturesque than effective. Government troops moved north and into Hue. They had it under control by 19 June. Three days later Vietnamese Marines and paratroopers marched into Quang Tri, northernmost city of significance in I Corps. Resistance by the Struggle Force was virtually at an end.

It was probably the pacification effort that suffered most from the unrest. An obvious target of the Viet Cong was the Ngu Hanh Son program in Hoa Vang district. The district chief, never enthusiastic over the program, was one of those who had gone over to the Struggle Force. Not only had the VC reinfiltrated the hamlet cadres, but by a wave of terrorist acts, they had renewed their impact on the populace. There were also open Viet Cong attacks aimed at getting around or behind the Marines. Two companies of VC got as far as An Trach, four miles south of Da Nang air base and something of a civic action showplace, before they were intercepted and destroyed by 1st Battalion, 9th Marines (Lieutenant Colonel William F. Doehler).

The 3d Battalion, 1st Marines, was brought up from Chu Lai and put into the five-village area to help repair the damage. The Battalion moved in side by side with the badly shaken 59th Regional Force Battalion. Soon there was combined patrolling—the high-low silhouette of tall Marines and short RF troopers could be seen along the paddy dikes—and the security of the area improved dramatically.

Ky Lam Campaign

In March, when General Walt returned from Washington, Major General Wood B. Kyle also arrived and took command of the 3d Marine Division. A careful tactician, with a strong background in infantry operations and command, General Kyle wanted to clear up (in a literal sense) the situation south of Da Nang. This desire coincided with the long-term ambition of the 9th Marines to make a careful, thorough advance to Hoi An and the line of the Thu Bon-Ky Lam River. There followed a series of operations:

Kings, which moved the forward edge of the regiment to Route 14.

Georgia, which put 3d Battalion, 9th Marines, into An Hoa (another An Hoa, there are many in Vietnam), 20 air miles southwest of Da Nang, and important because a hydroelectric and chemical complex which had been begun there, became isolated when the Viet Cong cut off rail and highway communications, in late 1964.

Liberty, which broadened the front, by bringing the 3d Marines in on the 9th Regiment's right flank, and the 1st Marines on its left.

On Da Nang air base, the 1st Military Police Battalion (activated December 1965, one of the new formations made possible when 30,000 additional Marines

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were authorized in August 1965) relieved 3d Battalion, 3d Marines, as Air Base Defense Battalion. The 3d Battalion, 3d Marines, had served in Vietnam with the 4th Marines, 7th Marines, and 9th Marines, but never with the 3d Marines. When relieved from the air base, it returned to its parent regiment.

Operation Jay, conducted about 20 kilometers northwest of Hue, began 25 June and lasted nine days. The 2d Battalion, 4th Marines, landed north of the 812th Main Force Battalion, and 2d Battalion, 1st Marines, landed south. Caught in between, the enemy lost 54 dead the first day, and 28 more in the next eight.

South of Da Nang, the engineers, who had closely followed the advance – and sometimes preceded it— celebrated the Fourth of July by opening "Liberty Road" as far as Route 14. Before the end of August, the road was open as far as An Hoa, and once again there was land communication with the hydroelectric and chemical complex.

The Fourth of July also saw the beginning of Operation Macon. The principal adversary of the 9th Marines had been the Doc Lap Battalion, a Main Force battalion of great tenacity and skill, particularly adept at ambushes, mine warfare, and sudden, sharp ripostes against unwary units up to company size. The Doc Lap Battalion was now north of An Hoa and south of the Thu Bon River. Operation Macon was an open-ended operation that went on for three months. At one time or another, five Marine battalions had a crack at it, and at the end 507 dead VC had been counted.

INFILTRATION ACROSS THE DMZ

A larger, more violent action was being fought in the north. During the first week of July there were intelligence indications that a North Vietnamese division, probably the 324th Bravo, had moved across the DMZ into northern Quang Tri province. The 2d Battalion, 1st Marines (Lieutenant Colonel Jack D. Spaulding), and a reconnaissance element were sent to investigate. What followed involved some 8,000 Marines and 3,000 South Vietnamese, and was the most savage battle of the war, up to that point.

Task Force Delta, this time commanded by Brigadier General Lowell E. English, launched Operation Hastings on 15 July. To begin with, three battalions were engaged: 2d Battalion, 1st Marines; 2d Battalion, 4th Marines (Lieutenant Colonel Arnold E. Bench); and 3d Battalion, 4th Marines (Lieutenant Colonel Sumner A. Vale). The airstrip at Dong Ha, 38 miles north of Hue, provided a convenient staging base. Contact was made in the vicinity of Cam Lo on Route 9, seven miles west of Dong Ha, near a 700-foot hill, the "Rock Pile," which is a cork to the valleys leading down from the north and west. The SLF, then 3d Battalion, 5th Marines (Lieutenant Colonel Edward J. Bronars), landed at Pho Hai, and joined up with Task Force Delta two days later. The 1st Battalion, 1st Marines (Lieutenant Colonel Van D. Bell, Jr.), was committed on 20 July; 1st Battalion, 3d Marines (Lieutenant Colonel Robert R. Dickey, III), on 22 July. Five Vietnamese battalions also entered the fight, and B-52s bombed the DMZ for the first time.

Hastings ended on 3 August, by which time 824 of the enemy had been killed, and 214 of his weapons captured. In Hastings, the Marines met a new kind of enemy- fresh North Vietnamese troops, fighting with their backs to their homeland. They found the well-trained light infantry tough and well-equipped with Chinese assault rifles, automatic weapons, and mortars. There was a savage satisfaction in meeting an enemy who stood and fought.

But why had the 324B Division crossed the DMZ?

There is no way of knowing for certain, but two reasons suggest themselves.

First, perhaps the North Vietnamese were testing the short route into South Vietnam, to see if they could avoid the long, debilitating march through Laos.

Second, it might have been an almost desperate response to Marine successes in the Hue, Da Nang, and Chu Lai TAORs. Main force VC units had been badly mauled in engagements in the spring and early summer. Local force guerrillas were also hurting as the pacification effort and accompanying security operations regained the momentum they had lost during the Buddhist troubles.

Operation Prairie

When Hastings ended, three battalions stayed north to guard against a reentry by the North Vietnamese. Almost immediately, the 324B Division struck again. The new operation was called Prairie; the battleground was the same as for Hastings.

By the end of August, 110 more of the enemy had been killed, 60 more weapons captured. A fourth battalion was added to the operation in September. On

Men of H Company, 2/4, use a jungle stream for a road as they move forward to meet the North Vietnamese 324 B Division below the DMZ in July 1966.

15 September, in a related operation, Deck House IV, the SLF (now the 1st Battalion, 26th Marines, and HMM-363) went ashore north of Dong Ha. On 25 September, having added 254 more enemy to the lengthening list of the killed, the SLF reembarked. As September ended, the total killed in Prairie was 943. The operation lasted until 31 January 1967. At one time, seven Marine battalions and three ARVN battalions were involved, and the total of enemy killed went to 1,397.

Fifth Marine Division

The 1st Battalion, 26th Marines, was the first element of the 5th Marine Division to reach the theater. Reactivation of the 5th Marine Division had been announced by the Secretary of Defense on 1 March 1966. The Division's principal base was Camp Pendleton, where it filled in facilities left vacant by the departed 1st Marine Division. Regimental Landing Team-26 the 26th Marine Regiment with accompanying slices of Division troops, including a battalion of the 13th Marines, the 5th Marine Division's artillery regiment was activated first. The 27th Marines and 28th Marines followed in sequence.

First to command the reactivated 5th Division was Major General Robert E. Cushman, who was also the Commanding General, Marine Corps Base, Camp Pendleton, and, since 7 February, Commanding General, 4th Marine Division. This last assignment resulted from the creation of a headquarters nucleus (29 officers, 69 enlisted men) to do mobilization planning for the 4th Marine Division which had not, of course, been called to active duty.

Manpower for the 5th Marine Division came out of an additional 55,000 spaces authorized for the Marine

Corps late in 1965. The Marine Corps was building toward a goal of 278,184 by 1 July 1967. Its peak during the Korean War had been 261,343, and its all-time high of 485,113 had been reached during World War II. In fiscal year 1966 the Marine Corps took in 80,000 volunteers and nearly 19,000 draftees.

MANILA CONFERENCE AND PACIFICATION

In Vietnam, the national election to choose members of the Constituent Assembly, who in turn would draft a new constitution, a step along the way to a return to civilian government, was held as scheduled on 11 September 1966. Experts guessed that perhaps 60 per cent of the 5,288,512 registered voters would go to South Vietnam's 5,238 polling places. If as many as 70 per cent voted it would be considered a clear-cut victory for the Ky government. No one expected 80.8 per cent of the voters to turn out, which is what happened, despite VC terrorism (on election day alone, the VC killed 19, wounded 120) and Buddhist threats to boycott the election. In Hue, stronghold of the Buddhists, a surprising 84 per cent of the registered electorate cast ballots.

A month later, when he was in Australia and on his way to the Manila Conference, President Johnson, thinking perhaps of a growing list of military successes and of more political stability in South Vietnam, said, "I believe there is a light at the end of what has been a long and lonely tunnel."

Certainly, a part of the light at the end of the tunnel had been provided by III MAF operations. A balance sheet struck in mid-October 1966 would have shown:

—an 18-month build-up to close to 60,000 Marines.

—a growth in Marine areas of responsibility from eight square miles and a population of 1,930 to nearly 1,800 square miles and almost 1,000,000 people.

—more than 150 regimental- and battalion-sized operations that accounted for a total of 7,300 of the enemy killed.

—more than 200,000 patrols, ambushes, and other small-unit actions that killed an additional 4,000 guerrillas.

—a cost to the Marine Corps and to the nation of 1,700 Marines dead and more than 9,000 wounded. (Over 80 per cent of the wounded returned to duty).

In October, General Greene said III MAF had "solid control of three separate coastal combat bases which we will eventually expand into one." Joining the three bases would give control of 2,700 square miles and nearly 2,000,000 people.

One of the efforts foremost in President Johnson's mind at Manila was pacification. A major change in policy was implicit in the low-key language of the communique issued at the end of the conference:

"The Vietnamese leaders stated their intent to train and assign a substantial share of the armed forces to clear-and-hold actions in order to provide a shield behind which a new society can be built."

This represented agreement by Premier Ky that Popular Force and Regional Force units would not be the only ones assigned security missions; as many as half of the 120 regular ARVN maneuver battalions would be retrained for this kind of duty. (In August 1967 Ky announced the number would be 53.) Major General Nguyen Duc Thang, Minister of Revolutionary Development, enthusiastically endorsed the new policy. A two-week orientation course was convened 2 November in Saigon, and each ARVN Division sent a 12-man team headed by a colonel or lieutenant colonel. The four corps headquarters and the elite General Reserve units—the Marine and Airborne Brigades—also sent representatives. Instruction was given by both Vietnamese and American officials.

At first it was envisaged that one battalion would be redeployed to each of the provinces in the respective ARVN divisions' zones of responsibility. Their job would be much like that performed by the 59th Regional Force Battalion and elements of the 51st ARVN Regiment in the Ngu Hanh Son program—primarily security for the work of the government cadres. In I Corps, 14 battalions would be so assigned.

When 1966 began there were about 15,000 trained cadres. During the year another 10,000 were graduated from the training center at Vung Tau. The total number was scheduled to go up to 60,000 in 1967. They were employed in 59-man teams, each of which, by rule of thumb, was supposed to be able to pacify two hamlets a year. Pacification entails eradication of the last vestiges of VC control, and the substitution of government control and services. When self-government and self-defense have been achieved, the team can move on to another hamlet. There are various indices by which a hamlet is judged "secure" or "pacified:" one of the most pragmatic and useful is whether or not the chief sleeps in his hamlet at night. There are 11,000 hamlets in South Vietnam; 4,500 were considered to be under government control as 1966 ended, 3,000 contested, and 3,500 under Viet Cong domination.

On 23 November 1966 a directive placed all U. S. nonmilitary agencies supporting revolutionary development under an Office of Civil Operations headed by

Deputy Ambassador William J. Porter, number two man in the U. S. Embassy in Saigon. A few days later it was announced that regional directors were being named for each of the four Corps areas. These regional directors would have under them all related civilian efforts; AID's program, JUSPAO's psychological operations and information services, CIA's pacification activities. Assigned to I Corps was Assistant Deputy Ambassador Henry L. T. Koren, 55, a career diplomat and number three man in the Embassy.

HEART OF THE MATTER

Over-all strategy had come around to recognizing what the Marines had insisted upon from the beginning: the overriding importance of the pacification effort. It was also beyond argument that, despite its special problems and setbacks—including the Buddhist Revolt and the North Vietnamese push across the DMZ— I Corps had made greater progress than the other Corps areas in coordinating Vietnamese and American approaches to pacification. The Joint Coordinating Council, the Golden Fleece and County Fair operations, and the Combined Action Companies could be cited as early experiments in cooperation that had worked.

By the end of 1966, for example, there were 58 Combined Action Platoons in being. In November one of these platoons got a rugged testing when An Trach, south of Da Nang, was hit by a North Vietnamese force guided by local guerrillas. The raiders got into the perimeter with small arms, rockets, grenades, and demolition charges. The defending platoon was battered but it held, and after a 40-minute firefight the attackers were driven off.

Near the end of 1966, Ambassador Henry Cabot Lodge said: "In this war, when we have beaten the army of North Vietnam and the main force battalions of the Viet Cong, we have simply won the opportunity to get at the heart of the matter, which is more than 150,000 terrorist guerrillas highly organized throughout the country and looking exactly like civilians."

General Walt said much the same. The battles against the North Vietnamese and the Viet Cong main force battalions were only a prelude. "Our most important job is eliminating the guerrilla." The ultimate solution lies in pacification. "I believe in all my heart that we are on the right track . . . but there are no dramatic changes in this war. It is slow because you are changing minds. That takes time."

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Edwin H. Simmons
Brigadier General, U. S. Marine Corps

Marine Corps Operations in Vietnam, 1967

"More and more American units had to be moved into the battle zone, drawing them away from the task of gaining control of the rural population. 'The Marines are being stretched as taut as a bowstring,' wrote Giap."

Marines from the Special Landing Force come ashore by helicopter from the USS *Iwo Jima* (LPH-2) and head inland during Operation Deckhouse VI, in February 1967. Most of the photographs illustrating this account were taken during that amphibious operation, the second of 23 conducted during the year.

PHOTOGRAPH BY JERRY L. MEANS

In his essay, "Marine Corps Operations in Vietnam, 1965–1966," in *Naval Review 1968*, General Simmons began with the landing of the 9th Marine Amphibious Brigade at Da Nang on 8 March 1965—the first U. S. ground combat forces to be committed to the war—and ended with the large-scale operations of III Marine Amphibious Force in the fall and winter months of 1966 against North Vietnamese regulars who had crossed the Demilitarized Zone. In so doing, he traced the evolution of the Marine mission in Vietnam from the initially limited defensive role—that of defending the Da Nang air base—to a fully developed, balanced strategy involving five tasks:

1. Defense and development of secure base areas (specifically the coastal bases of Da Nang, Phu Bai, and Chu Lai).
2. Support of combat operations conducted by the South Vietnamese in I Corps (including the rules by which "co-ordination" was substituted for "unity of command" and how well this co-ordination worked).
3. Conduct of offensive operations against the Viet Cong (the respective merits of "search-and-destroy" and "clear-and-hold" operations were discussed).
4. Preparedness to provide forces elsewhere in South Vietnam (III MAF's primary responsibility was I Corps Tactical Zone—the northernmost five provinces—but, when contingencies demanded it, the Marines had to be prepared for employment elsewhere).
5. Support of "Revolutionary Development." (If there was a fundamental difference at this time in Army and Marine thinking as to how the war should be prosecuted, it lay probably in differences of opinion on the role U. S. forces should play in pacification. The Marine Corps was more sanguine about the chances of American success in this role, had gotten off to an earlier start, and had developed a number of procedures and techniques that showed promise.)

Last year's piece ended on a cautiously optimistic note: gratification that the national strategies of the United States and South Vietnam had come to recognize—as explicitly stated at the Manila Conference—the overriding importance of the pacification efforts, sometimes called "the other war."

—Editor.

AT YEAR'S BEGINNING

The Western calendar year 1967 began with a New Year's truce, 48 hours of uneasy, distrustful stand-down, marred by 61 truce violations on the part of the enemy.

I Corps Tactical Zone is the northernmost of the four corps areas into which South Vietnam is divided. During the course of 1967, most Marine units moved into the two northern provinces of I Corps, while elements of the Army moved into the three southern provinces.

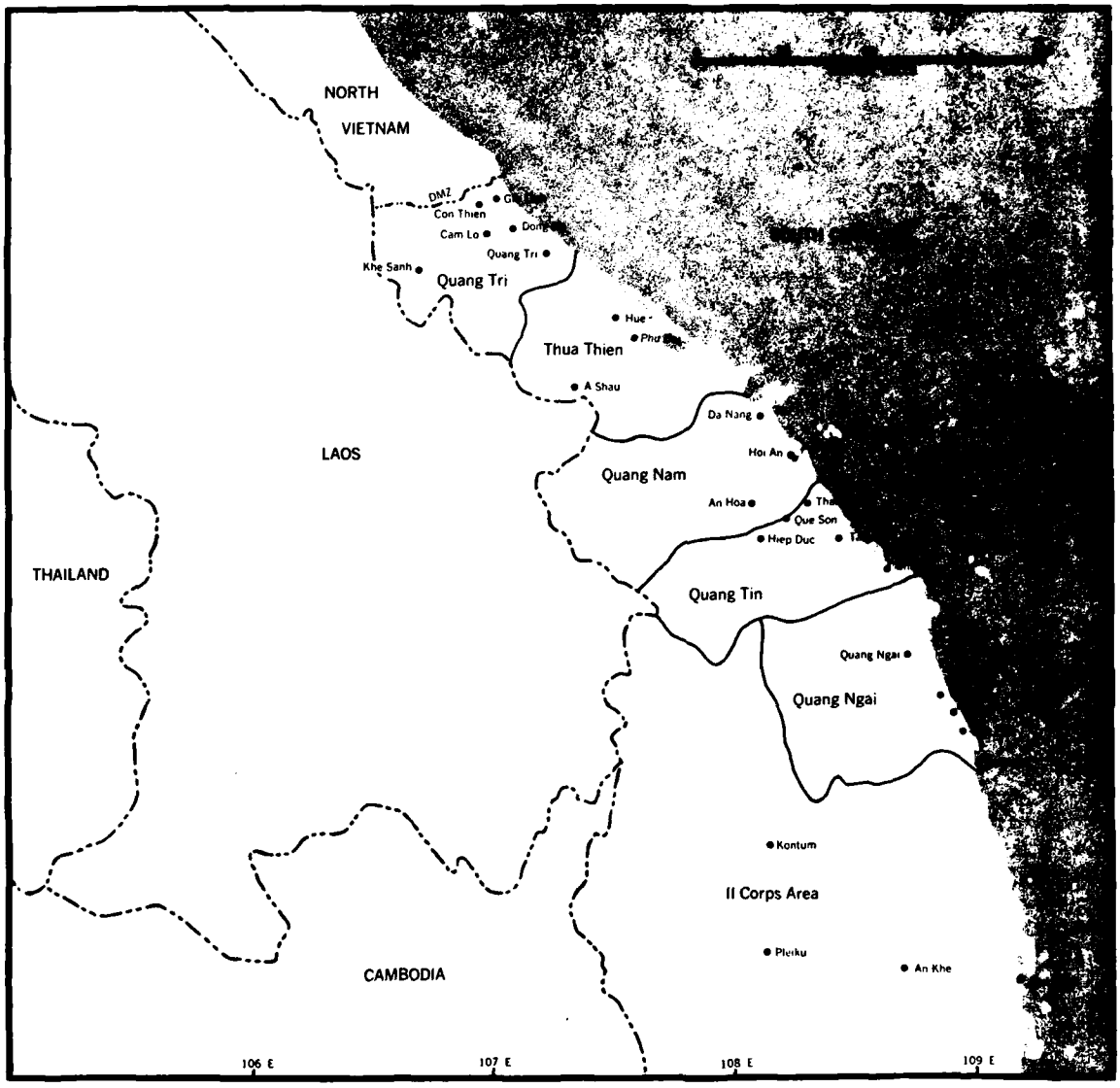
The 18 infantry battalions of the III Marine Amphibious Force (Lieutenant General Lewis W. Walt) were engaged in a series of combat operations and continuing obligations that ranged the length and breadth of I Corps Tactical Zone (ICTZ), the northern five provinces of South Vietnam. Called "Marineland" by some, although this term was more in use in Saigon than in Da Nang, the area of operations stretched 225 miles, from the Demilitarized Zone south to the boundary with Binh Dinh Province and II Corps Tactical Zone.

Third Marine Division (Major General Wood B. Kyle) was all north of the Hai Van Mountains, the picturesque sharp-backed ridge which divides the northern two provinces from the rest of ICTZ. Four battalions were in Quang Tri Province, up against the DMZ; three were in Thua Thien Province. The 3d Division command post in October had displaced from Da Nang to Phu Bai, outside of Hue. A forward command post was set up at Dong Ha, where Route 9 crosses Route 1.

South of the Hai Van Mountains, 1st Marine Division (Major General Herman Nickerson, Jr.) had shifted its headquarters north in October from Chu Lai, moving into the bunkered command post, vacated by 3d Marine Division, on the reverse slope of Hill 327 three kilometers west of Da Nang. 1st Marine Division had seven battalions in Quang Nam Province.

At Chu Lai, 1st Marine Division had left behind Task Force X-Ray (Brigadier General William A. Stiles), a brigade-size force with two battalions in Quang Tin Province and two in Quang Ngai. Also in Quang Ngai were the Korean Marines—the 2d KMC "Blue Dragon" Brigade (Brigadier General Lee Bong Chool) with three infantry battalions, which were very much like the U. S. Marines in organization, training, and equipment.

(In the quantified war in Southeast Asia, the level of effort on the ground is measured by the number of infantry battalions involved, and the effort in the air by the number of tactical squadrons. This kind of statistical shorthand does the regiments, groups, and brigades a disservice, and makes the combat support and service support units almost anonymous, but its use is entrenched and convenient, and—with this note of apology—will be used here.)



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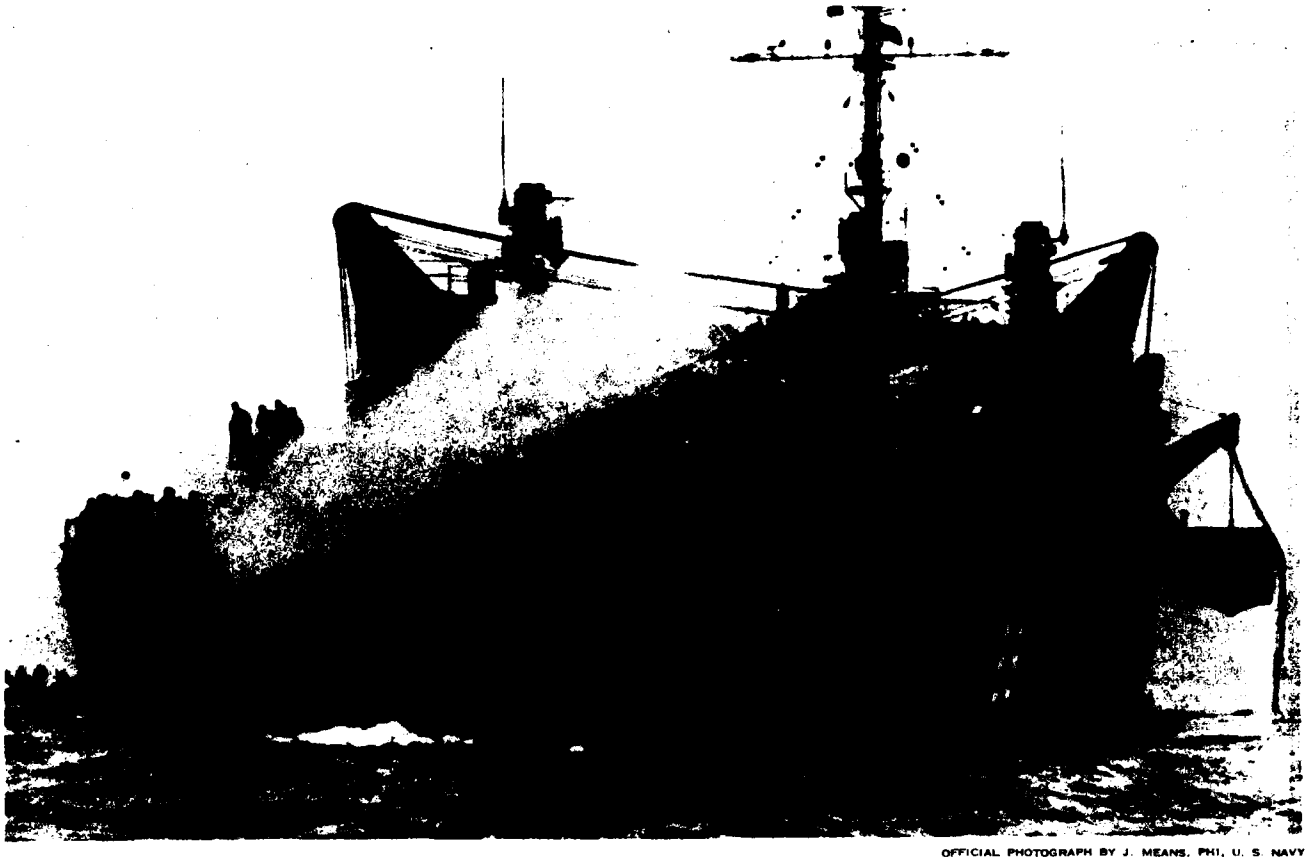
To support the ground elements of III Marine Amphibious Force, 1st Marine Aircraft Wing (Major General Louis B. Robertshaw) was based at five principal fields: fixed-wing aircraft at Da Nang and Chu Lai; helicopters at Phu Bai, Marble Mountain near Da Nang, and Ky Ha at Chu Lai. From these airstrips the Wing also made its own significant, if unpublicized, contribution to the rest of the air war, making out-of-country as well as in-country strikes.

General Walt had at the year's beginning a total of 70,378 men under his command in III MAF 67,729 Marines and 2,649 sailors.

Sharing with III MAF the same five-province battlefield was the I Corps of the Army of the Republic of Vietnam, whose operations were sometimes co-ordinated with, sometimes separate from, those of III MAF. Command relations officially prescribed between the two allies were based on co-operation and co-ordina-



OFFICIAL PHOTOGRAPH BY J. MEANS, PHI, U. S. NAVY

tion. Such a relationship does not diagram well and scarcely meets the classic requirement for unity of command, but it worked in ICTZ because the two commanders, Lieutenant General Hoang Xuan Lam and Lieutenant General Walt, made it work.

The two northern provinces, Quang Tri and Thua Thien, where 3d Marine Division was engaged, continued to be the tactical area of 1st ARVN Division (Brigadier General Ngo Quang Truong), which had now recovered from the dissensions of the Buddhist Revolt of the previous spring and summer and was once again a first-class fighting division. General Truong's headquarters was at Hue.

In Quang Nam, the center province, were the I Corps headquarters at Da Nang, the 51st ARVN Regiment charged with pacification security south of Da Nang and a number of separate battalions.

The southern two provinces, Quang Tin and Quang Ngai, continued to be the tactical area of the 2d ARVN Division (Colonel Nguyen Van Toan) with headquarters at the city of Quang Ngai.

As the year began, General Lam had 33 infantry battalions under his command, including the three Ranger battalions that made up his corps reserve and Vietnamese Marine battalions temporarily assigned from the general reserve. The present-for-duty strength of his battalions would average about one-third to one-half that of their U. S. Marine counterparts. Counting Regional Forces and Popular Forces, as well as regulars, General Lam had about 75,000 troops.

Monsoon Months

In northern Quang Tri Province, Operation Prairie, the battle which had begun in July 1966 as Operation Hastings, continued. At the height of the operation as many as six Marine battalions fought North Vietnamese Army regulars and Viet Cong. At the turn of the year there were four: 3d Marines (Colonel John P. Lanigan),

Sea spray and exhaust fumes are part of the scene as a pair of LCM-8s back out of the well deck of the USS *Thomaston* (LSD-28), while taking part in Operation Deckhouse VI, near Sa Huyn in Quang Ngai Province.

with its three organic infantry battalions, plus 3d Battalion, 4th Marines. The Marines were operating from a series of combat bases from Dong Ha west along Route 9 to Khe Sanh. The monsoon was just past its peak; the terrain was waterlogged, the rivers and streams swollen. Through the month of January contacts made were light.

On 31 January Prairie I ended, after 182 days: the longest and bloodiest Marine engagement of the war up to that time. Final Marine casualty lists showed 225 killed, 1,159 wounded, 1 missing in action. The enemy—NVA and VC together—lost 1,397 killed, 27 captured.

Prairie II was begun the next day, 1 February. The battleground was the same: the strip between Route 9 and the DMZ. With all evidence indicating that the NVA had withdrawn its major units north across the DMZ or west into Laos, Marine troop strength was reduced by one battalion and the mission was changed from search-and-destroy to clear-and-secure. Essentially, this meant countering NVA infiltration, suppressing VC activity in northern Quang Tri Province, and supporting the Revolutionary Development efforts of the 1st ARVN Division.

In Thua Thien Province, Operation Chinook, which had begun on 19 December 1966, was still being fought by the 2d and 3d Battalions, 26th Marines, under command of the 4th Marines headquarters (Colonel Alexander D. Cereghino). The mission was to block infiltration routes leading down from the mountains towards Hue and thus deny the Viet Cong access to the rice-rich coastal area. Late in the afternoon of 31 December a Marine reconnaissance patrol sighted a thousand enemy moving from the piedmont down into the Co Bi Than Tan Valley northwest of Hue. The New Year's truce was on, but the enemy's offensive intent was obvious. Within 30 minutes General Westmoreland had given permission to engage the enemy with air and artillery. The strikes and shoot looked good but it was difficult to gauge the results and heavy monsoon rains and the flooded valley severely hindered action on the ground.

On 19 January, 2d Battalion, 26th Marines (Lieutenant Colonel John M. Cummings) was returned to division control and the operation was continued by 3d Battalion, 26th Marines (Lieutenant Colonel Kurt L. Hoch). There was little additional contact until 27 January, when air and artillery killed 31 enemy.

The operation was ended with a bang on 6 February, the eve of the Tet truce: about 30 rounds of 81-mm. mortar fell that last day on the battalion command post, wounding five Marines. Action during Chinook killed 4 Marines and wounded 73; the enemy lost 159 dead, and 5 were taken prisoner.

January 1967 was a relatively quiet month for the 1st Marine Division. In Quang Nam Province there was only one large operation: Tuscaloosa, a four-day affair that began 24 January, 15 miles south of Da Nang. Seventy-nine enemy were killed and 17 weapons taken; the Marines had 17 killed, 52 wounded.

Further south, in Quang Ngai Province, Task Force X-Ray had begun Operation Sierra 12 December and continued it until 21 January. The enemy lost 111 killed, 9 prisoners, and 36 weapons. Marine casualties were 10 killed, 50 wounded. Then, on 26 January, Operation Desoto was begun 25 miles southeast of Quang Ngai City, involving two battalions: 3d Battalion, 5th Marines (Lieutenant Colonel Dean E. Esslinger), and 3d Battalion, 7th Marines (Lieutenant Colonel Raymond J. O'Leary), with 7th Marines regimental headquarters (Colonel Charles C. Crossfield, II) in charge.

The idea behind Desoto was to insert elements of two battalions—about all that could be spared for the job—in the Duc Pho area and then work north and south along the axis of Highway One until the coastal area from Mo Duc south to the Binh Dinh border was cleared of VC. Much of the countryside was under water because of the northeast monsoon. A logistic support area was opened at Quang Ngai to which supplies could be trucked from Chu Lai. From Quang Ngai into Duc Pho supplies went by helo. When the weather was particularly bad, supply lines were shortened by stationing an LST as a supply ship off Duc Pho and using helicopters to bring supplies ashore.

Special Landing Force

Meanwhile, on 5 January, at the other end of South Vietnam, in IV Corps Tactical Zone, the Seventh Fleet's Special Landing Force, at this time Battalion Landing Team 1/9 (1st Battalion, 9th Marines, reinforced) and Medium Helicopter Squadron HMM-362, landed 62 miles south of Saigon, between two mouths of the Mekong. The operation, called Deckhouse V, was the first use of U. S. combat troops in the Mekong Delta, and the SLF was working in conjunction with two Vietnamese Marine battalions. Intelligence proved bad and results were unimpressive: 21 enemy were killed, 7 Marines were killed, and 35 Marines were wounded. Fol-

PHOTOGRAPH BY JERRY L. MEANS

An LVTP follows two Marines off the bow ramp of an LCM-8 during Operation Deckhouse VI. The core of the force conducting this emphibious landing was the 1st Battalion, 4th Marines. When they re-embarked nine days later they had killed 204 enemy troops and lost five of their own.

lowing this first SLF operation of the year, there would be 22 more landings in 1967, all in I Corps, costing the enemy 2,113 dead.

ORGANIZATION

The day before the Deckhouse V landing, 4 January, Brigadier General Louis Metzger relieved Brigadier General Michael P. Ryan as Commanding General, 9th Marine Amphibious Brigade. The 9th Marine Amphibious Brigade, with headquarters at Okinawa and consisting essentially of a reinforced Marine regiment and composite Marine aircraft group, provided the battalion landing teams and helicopter squadrons which served afloat as the Seventh Fleet's Special Landing Force. It was also CinCPacFlt's strategic amphibious reserve for the Western Pacific, useful for contingencies not necessarily confined to Southeast Asia or Vietnam, and it offered a convenient, out-of-country base for battalions and squadrons rotated from South Vietnam for refitting and retraining.

The rotations that took place in January 1967 will serve to illustrate the cycle:

On 5 January, BLT 2/4 arrived at Da Nang from Okinawa. Four days later, 9 January, the battalion landing team it relieved, BLT 3/9, left South Vietnam for Okinawa. On 18 January, HMM-363 replaced HMM-362 (both were UH-34D squadrons) as the helicopter element of the Special Landing Force and HMM-362 came into Ky Ha Air Facility at Chu Lai. On 25 January, BLT 1/4 relieved 1/9 as the Special Landing Force. At the month's end, BLT 1/9 left Okinawa for Vietnam, relieving BLT 1/3 at Phu Bai. BLT 1/3, in turn, rotated to Okinawa on 8 February.

The infantry battalions as they moved in and out of the country came under various regimental headquarters. Rarely did a regiment command all its own battalions and no others. A regiment could have as few as one or as many as six battalions under its operational control. However, the tactical areas of responsibility assigned to a regiment tended to remain fixed. Thus, for the first part of 1967, 3d Marines was in Quang Tri Province along Route 9; 4th Marines was in Thua Thien Province north of Hue; 1st and 9th Marines were in Quang Nam Province, south and west of Da Nang; 5th Marines was disposed in Quang Tin Province, north of Chu Lai; and 7th Marines operated in Quang Ngai Province, south of Chu Lai. These areas of responsibility, while not rigid, were fairly constant. The advantages are obvious: the regimental commanders and their staffs got to know the terrain, their Vietnamese counterparts, the civilian populace, and the enemy very well.

In much the same way, although with a greater degree of permanence, the Marine aircraft groups continued to operate from the same air facilities, picking up and relinquishing operational control of the tactical squadrons as they moved in and out of country. The helicopter groups, MAG-16 and MAG-36, were at the air facilities at Marble Mountain and Ky Ha respectively. One fixed-wing group, MAG-11, was at Da Nang; two others, MAG-12 and MAG-13, were at Chu Lai.

NEW AIR ASSETS

On 31 December 1966 a detachment of 65 Marines from HMH-463 with four CH-53As arrived at Marble Mountain Air Facility. The detachment was declared operational on 7 January. The Sikorsky "Sea Stallions" replaced the few remaining CH-37s and for the first time in the war, 1st Marine Aircraft Wing had an adequate heavy helicopter. It soon proved its value as a big lifter; it lifted disabled CH-46s as easily as UH-34s and UH-1Es. Before 1967 was over, 120 damaged UH-34s and CH-46s

would be retrieved by CH-53s. The CH-53A was the one new helicopter type to come into the active inventory during 1967.

An equally welcome new fixed-wing type had arrived on 1 November 1966, when VMA(AW)-242 (Lieutenant Colonel Howard Wolf) landed at Da Nang with twelve A-6As after a transpacific flight.

The A-6A, built by Grumman and called the "Intruder," was lumpy and bulbous and looked like a vintage 1950 attack aircraft. The crew of two sat side by side, the fuselage was rather fat, and the speed at which the two J-52 engines pushed it along was not particularly impressive. But on a typical mission, the A-6A could go out 400 miles with twenty-eight 500-pound bombs, loiter an hour, then drop its ordnance on a moving target hidden by darkness or weather. In the monsoon when nothing else could operate effectively, the "Intruder" came into its own. The A-6As were the first squadrons to get the designation "VMA(AW)"— Marine Attack Squadron, All-Weather.

The EA-6A, the electronic warfare version of the A-6A, had also joined the war in the fall of 1966. Largely unsung and unnoticed, partially because of the classified nature of some of its capabilities, the squadron using these airplanes, VMCJ-1, had compiled an exceptional record since its deployment to Vietnam. A Marine composite reconnaissance squadron, or VMCJ, operates two types of aircraft, one configured for photographic tasks and another for electronic countermeasures and reconnaissance. VMCJ-1 had begun its operations in Vietnam with the RF-8A and EF-10B. Although aging, both craft had performed well until replaced by the RF-4B and augmented by the EA-6A.

On 20 January, VMCJ-1's unique contributions were recognized when the Secretary of the Navy approved the Navy Unit Commendation for "exceptionally meritorious service" from 17 April to 1 November 1965.

OPERATIONS EARLY IN 1967

In Quang Nam Province, Operation Independence involved two battalions of the 9th Marines (Colonel Robert M. Richards) from 1 February to 9 February. Most of the action, which was moderate, took place south of the Song Vu Gia. In all, 139 enemy dead were counted; 20 enemy were captured. Nine Marines were killed, 35 wounded.

Tet, the Lunar New Year holiday, caused a general stand-down from offensive operations. Even civic action activities were curtailed to avoid offending Vietnamese sensibilities. The enemy was more careless in his observance. During the supposed ceasefire, from 0700, 8 February, until 0700, 12 February, the Marines counted 141 enemy truce violations, ranging from sniper rounds to mortar barrages. Some of the "incidents" led to short, violent engagements. In the four-day period two Marines were killed, 37 wounded; 37 enemy soldiers were killed, 1 was captured.

At 0700, 12 February, 1st Marines (Colonel Donald L. Mallory) with three battalions began Operation Stone 12 miles south of Da Nang in a troublesome area much worked over previously. The operation was expected to last five days. Initial contact was light, but it increased and the operation went on until 22 February, by which time there were 291 enemy dead and 65 enemy prisoners. 1st Marines had lost nine killed, 77 wounded.

It was obvious that during Tet the enemy had been very busy north of the Ben Hai River. Aerial reconnaissance picked up formidable troop and supply movements headed south. All indicators pointed to a large-scale North Vietnamese offensive. On 25 February, III MAF was given authority to fire artillery into the DMZ and the southern reaches of North Vietnam.

The 120-mm. mortar had been the heaviest weapon used against Marine air bases, but during the early morning hours of 27 February, about fifty 140-mm. Soviet-manufactured spin-stabilized rockets hit the three-square-mile area in and around the Da Nang main airfield, and hitting erratically, heavily damaged the hamlet of Ap Do close by, killing 32 civilians and injuring 40. The attack, as planned, apparently was to have been much heavier, for U. S. and Vietnamese patrols subsequently found 134 firing points within five miles of the base. The electrically-detonated weapon, reminiscent of the improvised rockets used by the Japanese against the beachhead at Iwo Jima, was so simple as to be primitive. The launcher was not much more than a tube fastened to a board planted in a shallow pit. At Da Nang Air Base, 14 Air Force aircraft and 3 Marine F-8s were damaged, but were quickly repaired. Five U. S. Army communications vans were destroyed. Two airmen, eight soldiers, and one Marine were killed. Twenty-six other men were wounded.

To the south, the Special Landing Force, composed of BLT 1/4 (Lieutenant Colonel Jack Westerman) and HMM-363 (Lieutenant Colonel Kenneth E. Huntington), landed on 16 February near Sa Huyn, at the southern tip of I Corps Tactical Zone, for Operation Deckhouse VI. On 25 February the SLF, commanded by Colonel Harry D. Wortman, re-embarked, leaving behind 204 enemy dead. Their own losses were five killed, 55

wounded. The Amphibious Ready Group dropped over the horizon and then came back again on the morning of 27 February, to land the SLF near Thach Tru. The 7th Marines had two battalions west of the landing area, engaged in Operation Desoto. Three ARVN battalions were similarly engaged. The situation was something of a replay of Double Eagle, fought on the same battleground a little over a year before. The 1st Battalion, 4th Marines, re-embarked 3 March. The second phase of Deckhouse VI had accounted for 76 more enemy dead. One Marine was killed, 35 were wounded.

In mid-March, Desoto was reduced to one battalion: 3d Battalion, 7th Marines (Lieutenant Colonel Edward J. Bronars). On 24 March, the battalion combat base took 300 rounds of mortar and recoilless rifle fire, which killed three Marines, wounded seven and destroyed a large part of a fuel dispensing system as well as 20,000 gallons of jet fuel and 6,000 gallons of aviation gas.

Earlier, on the night of 14/15 February, the heroic defense by the ROK Marine Brigade's 11th Company against a regimental-size attack southwest of Chu Lai triggered a series of actions, which resulted in the destruction of much of the 1st Viet Cong Regiment and perhaps some of the 21st NVA Regiment. With the enemy fixed in the hook of the Tra Khuc River, two ARVN airborne battalions were heloed into position to the west and behind the enemy, more ARVN blocked along the river to the south, a battalion of the 5th Marines went into position in the foothills to the northwest, and the ROK Marines pushed southwest from their base camps along Route 1. For their part in this operation, the 7th ARVN Airborne Battalion received the U. S. Presidential Unit Citation.

In Quang Tri Province, there were five Marine battalions in Prairie II when it was closed out at midnight, 18 March, after 46 days. Enemy losses were 693 killed, 20 prisoners, 137 weapons; the Marines lost 93 killed, 483 wounded, 1 missing. Prairie III began immediately with the same troops on the same battleground.

Next day, 20 March, 3d Marine Division got a new commanding general. Major General Kyle, who had commanded the division for a year, was returning to

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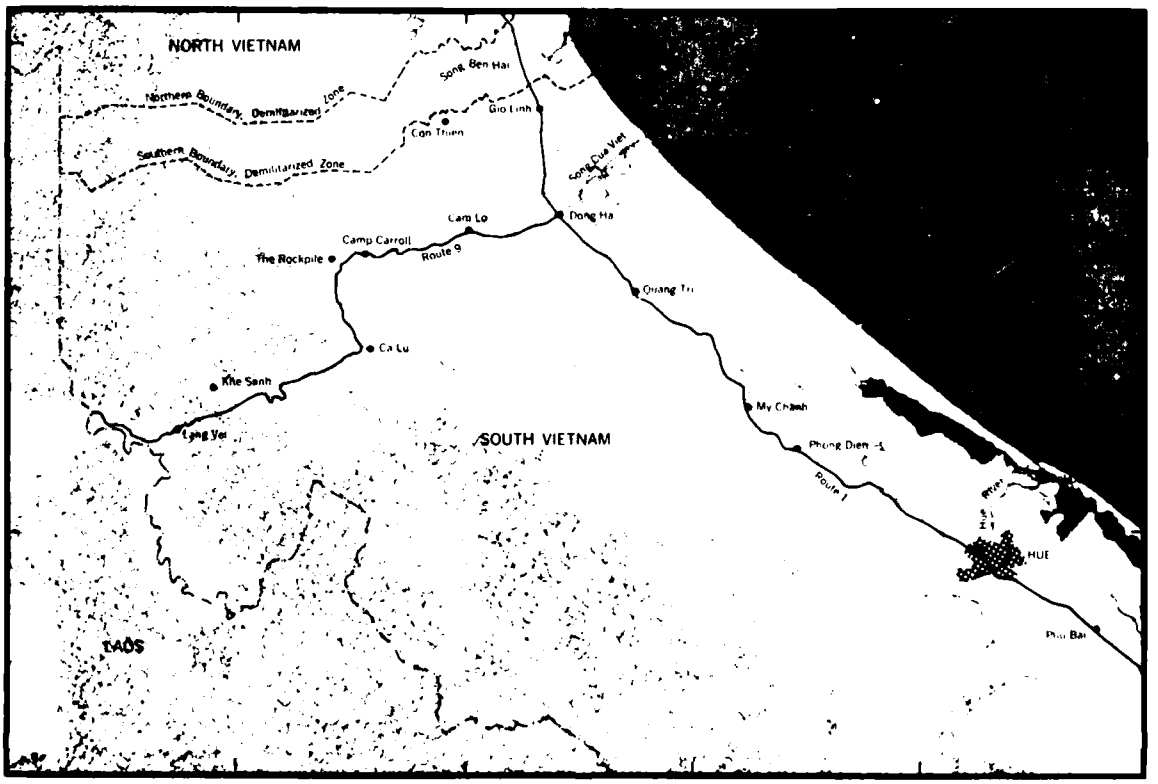


Helicopters of HMM-363, part of the Special Landing Force in February 1967, alight on a flat, sandy stretch of ground in Quang Ngai Province, enabling the Marines to trap the enemy between the landing zone and the sea. The illustration on page 112 is an enlargement of part of this photograph.

PHOTOGRAPH BY JERRY L. MEANS

Camp Pendleton to become Commanding General, 5th Marine Division. He was relieved by Major General Bruno A. Hochmuth, a tall, 56-year-old Texan.

Also on 20 March, the SLF—still BLT 1/4 and HMM-363—in co-ordination with Prairie III landed in Operation Beacon Hill, four miles south of the DMZ, near Gio Linh. That day Marine and ARVN positions near Gio Linh and Con Thien took about a thousand rounds of incoming mortar, rocket, and artillery fire, including 105-mm., 122-mm., and 152-mm. projectiles. Early the next day, 21 March, an ammunition convoy was ambushed two miles south of Gio Linh and severely cut up: seven trucks were destroyed, six other vehicles were badly damaged. During the evening of 30 March, about four miles northwest of Cam Lo, Company I, 3d Battalion, 9th Marines was hit by two mortar barrages, then by a ground attack converging from north, west, and south. The enemy attacked three times before breaking off, leaving 67 dead and 23 weapons on the field. Marine casualties were 16 killed, 36 wounded.

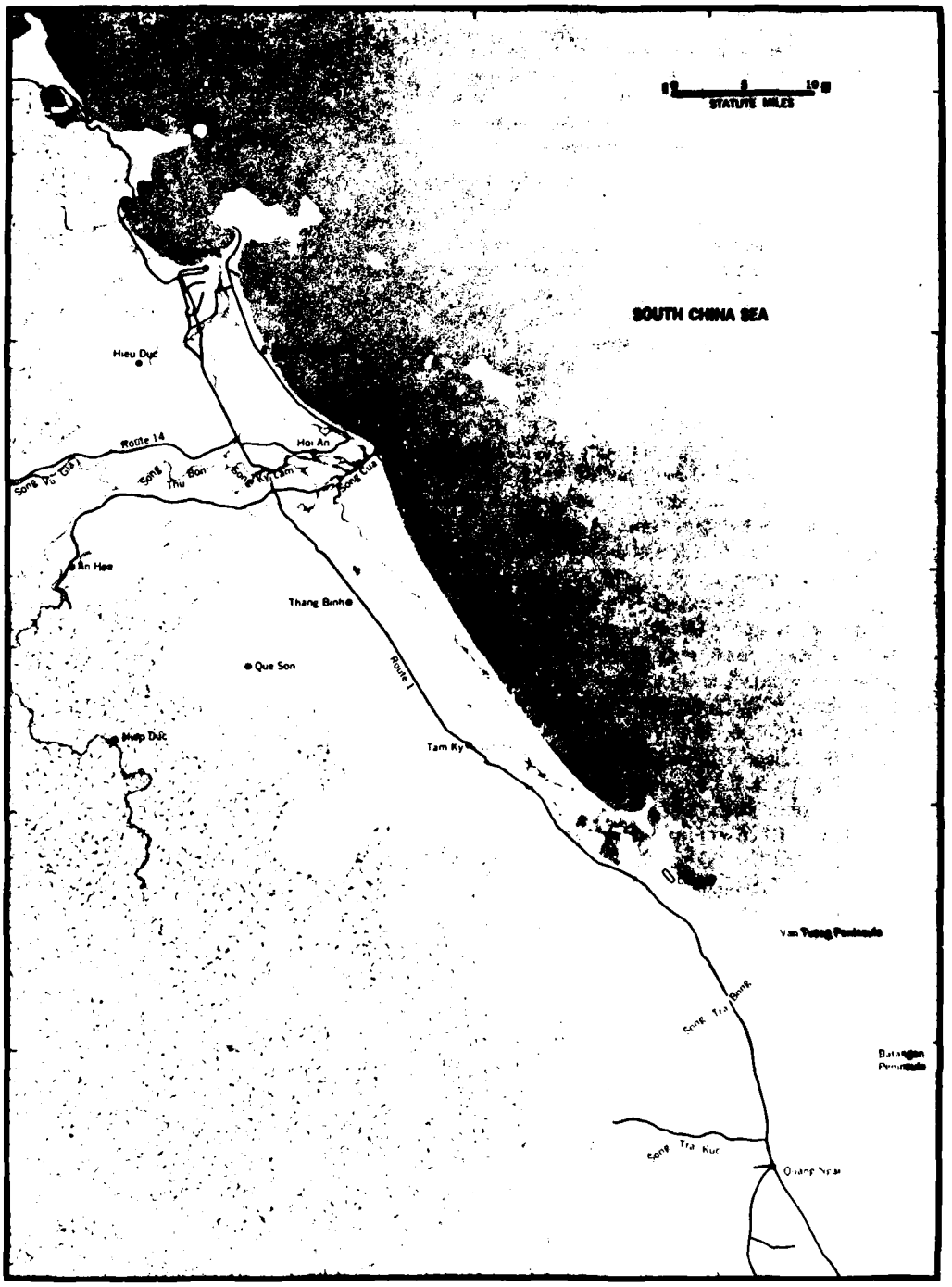
On 1 April, Beacon Hill was ended and the SLF reembarked. The 1st Battalion, 4th Marines claimed 334 enemy dead; 29 of their own had been killed, 230 wounded. Prairie III continued into April, but the fighting, most of which had taken place northwest of Cam Lo, seemed to be slackening. One Marine battalion was detached from the operation. On 19 April Prairie III was terminated. In the 30-day period, 252 enemy dead and 128 captured weapons had been reported; Marine losses were 55 killed, 529 wounded.

The Prairie series was not yet over. The scoreboard was wiped clean and Prairie IV began on 20 April, again at the same place and with the same four battalions. In some ways Prairie IV would prove most rugged of all. It was no longer called clear-and-hold: once again it was a search-and-destroy operation.

In Quang Nam Province, Operation Newcastle began on 22 March just north of An Hoa. In three violent days, 118 of the enemy were killed by 2d Battalion, 5th Marines (Lieutenant Colonel Mallett C. Jackson). Five Marines were killed, 55 wounded. On 15 March there had been another rocket attack against Da Nang Air Base, with 140-mm. rockets, which wounded 16 U. S. servicemen and damaged three Air Force aircraft.

At the southern end of I Corps Tactical Zone, Operation Desoto was ended on 7 April. Enemy dead numbered 383, captured 9; the Marines had lost 76 killed, 573 wounded. Desoto was the Marines' last big operation in Quang Ngai Province.

Shown here is the northern part of I Corps Tactical Zone, from just north of Da Nang north to the DMZ and west to Khe Sanh and the Laotian border.


STATUTE MILES
SOUTH CHINA SEA
Hieu Duc
Route 14
Hoi An
Song Vu Gia
Song Thu Bon
Song Ky Lam
Song Cua Lo
An Hoa
Thang Binh
Que Son
Route 1
Hiep Duc
Tam Ky
Van Tuong Peninsula
Song Tra Bong
Batangan Peninsula
Song Tra Khuc
Quang Ngai

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Arrival of the Army

On 9 April, the first of the Army brigades to arrive, the 196th Light Infantry Brigade (Brigadier General Richard T. Knowles, U. S. Army) with four battalions, flew in to Chu Lai from III Corps, mostly in C-130s. Heavy gear came in over the beach from LSTs. On 17 April, the 196th launched a three-day warm-up operation, Lawrence, to the west of Chu Lai along the ridge that forms the boundary between Quang Tin and Quang Ngai provinces. There were no casualties on either side but it did give the Army troops the feel of the ground. On 20 April, a headquarters for all U. S. Army units operating out of Chu Lai, Task Force Oregon, was activated, under the command of Major General William B. Rosson, U. S. Army. Two days later, the 3d Brigade, 25th Infantry Division (Colonel James G. Shanahan, U. S. Army), with two battalions, arrived by a combination of airlift and sealift to join Task Force Oregon. Supporting the two infantry brigades were four Army artillery battalions, an engineer battalion, and three light and one medium helicopter company. On the 26th, Task Force Oregon, under operational control of III MAF, took over responsibility for the Chu Lai tactical area of responsibility (TAOR) and the Chu Lai Defense Command.

On 12 April, General Wallace M. Greene, Jr., Commandant of the Marine Corps, told a Congressional committee that 40,000 more Marines were needed in Vietnam to do the job right. On 14 April, General William C. Westmoreland, ComUSMACV, told the press that his battle plan remained unchanged: "We'll just go on bleeding them until Hanoi wakes up to the fact that they have bled their country to the point of national disaster for generations. Then they will have to reassess their position."

Arrival of the Army troops allowed the 7th Marines with three battalions to move north from the Chu Lai TAOR to Da Nang.

Southern I Corps

The Viet Cong had one last stronghold between Chu Lai and Da Nang. Called variously Nui Loc Son Basin or Que Son Valley or Phuoc Valley, it was just south of the ridge that forms the Quang Nam-Quang Tin provincial boundary, west of Thang Binh, northwest of Tam Ky. It was an old battleground, much used by the ARVN, and the Marines had been there before, notably in Operation Harvest Moon in December 1965 and again in Operation Colorado in August 1966.

The Army began to arrive in the southern part of I Corps Tactical Zone, from just north of Da Nang to just south of Quang Ngai, in April 1967, but the Marines retained their interest in the area throughout the year. All U. S. operations in I Corps, regardless of the Service involved, where the responsibility of III MAF.

On 21 April, Company F from 2d Battalion, 1st Marines (Lieutenant Colonel Marvin M. Hewlett), operating southward from Da Nang, brushed up against a Viet Cong battalion in prepared positions west of Route 1 not far from Thang Binh. The next day, 3d Battalion, 5th Marines (Esslinger), and 1st Battalion, 1st Marines (Lieutenant Colonel Van D. Bell, Jr.), went into the valley in Operation Union.

In a scheme of maneuver reminiscent of Harvest Moon, the Marines landed in the valley by helo and drove northeast against the enemy while the 1st ARVN Ranger Group, with three battalions, attacked from Thang Binh southwest in an operation they called Lien Ket 102. Control was passed from 1st Marines (Colonel Emil J. Radics) to 5th Marines (Colonel Kenneth J. Houghton). There was a series of sharp clashes on 25 April. During the night of 27 April a Marine tripped a string of land mines and 33 Marines were wounded.

On 1 April, the Seventh Fleet had doubled its Special Landing Force capability by activating a second amphibious ready group and embarking a second battalion landing team and medium helicopter squadron from 9th Marine Amphibious Brigade. The two SLFs were designated "Alpha" and "Bravo." On 28 April, SLF Alpha (Colonel James A. Gallo, Jr.), which included BLT 1/3 (Lieutenant Colonel Peter A. Wickwire) and HMM-263 (Lieutenant Colonel Edward K. Kirby), landed 10 miles northwest of Tam Ky in Operation Beaver Cage, in concert with Union.

Toward the end of the month, enemy resistance slackened. The Vietnamese Rangers ended Lien Ket 102 on 29 April, having killed 15 enemy and losing 6 killed, 13 wounded. The 5th Marines' count by this time was 282 confirmed killed, 290 probably killed, 34 prisoners.

Relative quiet continued during the first week of May, although on the 3d the Marines did receive 40 to 50 mortar rounds that wounded 27. Then on 10 May, 1st Battalion, 5th Marines (Lieutenant Colonel Peter L. Hilgartner), which had joined the operation, moved out in concert with 1st Battalion, 3d Marines, in an attack to the east around the flanks of Hill 110 on the north side of the valley. 1st Battalion, 3d Marines, was north of

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Hill 110, moving along a valley, when they bumped into the enemy. 1st Battalion, 5th Marines, came up to assist and ran into heavy fire from positions dug into Hill 110. In the day-long battle that ensued, there was much use of artillery and air. 1st Battalion, 3d Marines, counted 91 enemy dead. Twenty-three of their own were killed.

On 13 and 14 May, the Marines fought a series of six engagements against small groups of the enemy, ranging up to company size. Enemy dead numbered 133; 12 Marines were killed, 59 wounded. On 15 May, 3d Battalion, 5th Marines (Esslinger) overran a fortified company position. Operation Union was terminated on 17 May, after 27 days. Enemies killed numbered 865, and there were another 777 "probable" battle deaths. In addition, the 5th Marines had picked up 173 prisoners and 70 enemy weapons. Marine losses were 110 killed, 473 wounded.

Northern I Corps

Concurrently with Operation Union, an even bloodier fight was going on in the northwest corner of Quang Tri Province; a fight which never got an official name of its own, but which could well be called the First Battle of Khe Sanh. Since September 1966, a Marine rifle company had been kept at Khe Sanh. On the morning of 24 April, 2d Platoon, Company B, 1st Battalion, 9th Marines, working five miles northwest of Khe Sanh, brushed against an enemy force which at first seemed reluctant to fight. When the 1st Platoon of Company B, moving up to relieve the 2d Platoon, also made contact, the enemy attacked with great fury. The outnumbered Marine platoons lost 13 killed, 17 wounded. This fight seems to have caused the enemy to reveal prematurely his intention to attack Khe Sanh in force. His preparations were almost, but not quite, complete.

Next day, 25 April, 3d Battalion, 3d Marines (Lieutenant Colonel Gary Wilder), came into Khe Sanh by helo from Dong Ha. By 1830 that evening one of its companies was heavily engaged against an enemy who was entrenched on Hill 861 in at least battalion strength. The following day, 26 April, Colonel John P. Lanigan and Headquarters, 3d Marines, arrived from Camp Carroll and assumed command.

On 21 April, SLF Bravo BLT 2/3 and HMM-164 had landed southeast of Quang Tri City in Operation Beacon Star. On 26 April, Beacon Star was broken off and 2d Battalion, 3d Marines (Lieutenant Colonel Earl R. DeLong), was helilifted to Phu Bai, where it was picked up by Marine KC-130s and flown to Khe Sanh.

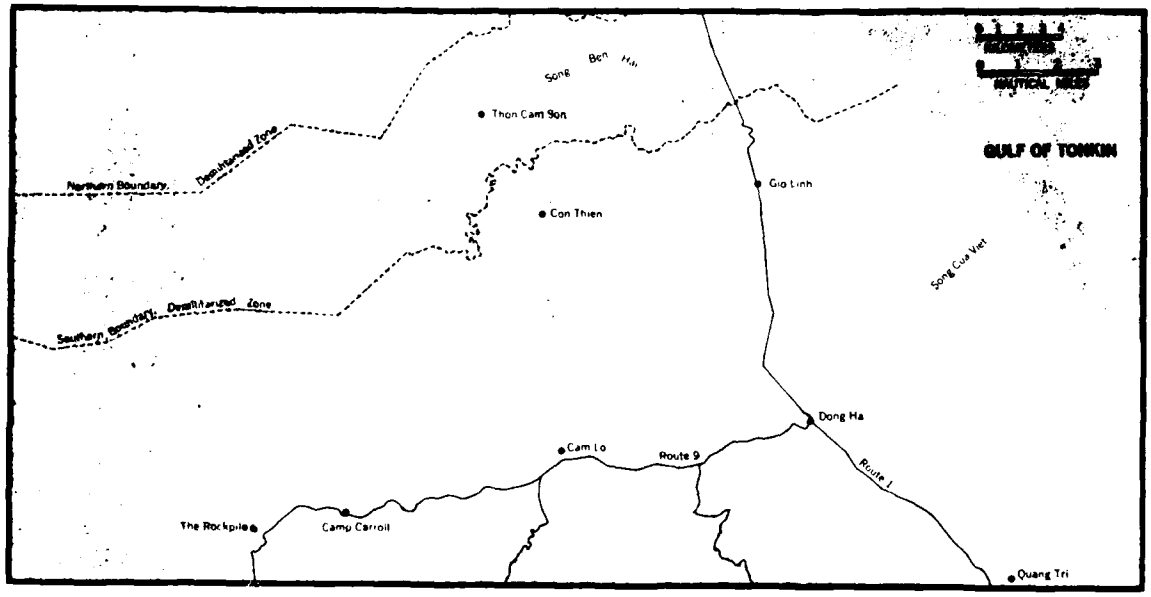
Near the DMZ, the most important places in U. S. hands in 1967 were Dong Ha, Cam Lo, Con Thien, and Gio Linh. Supplies came mainly from Da Nang by sea to the Cua Viet. Unloaded at Dong Ha, they were then transported north on Route 1 or west on Route 9 to Camp Carroll, the Rockpile, and perhaps to Khe Sanh.

By nightfall, 28 April, the 2d and 3d Battalions, 3d Marines, advancing behind a curtain of air strikes and artillery fire, had taken Hill 861. On 30 April, the 2d Battalion moved out against Hill 881 North, two miles to the northwest; and the 3d Battalion went after Hill 881 South, three miles to the west. Two companies of the 3d Battalion reached the top of Hill 881 South by the evening of 30 April. Enemy fire was heavy and so were Marine casualties. The two companies were pulled back 750 meters to permit the objective to be pounded again with supporting arms. Next day, 1 May, the 1st Marine Aircraft Wing flew 107 close air support and 45 direct air support sorties, a near record for support of one battalion in a single day. The assault was renewed on 2 May and by midafternoon Hill 881 South was taken.

Meanwhile, the 2d Battalion was heavily engaged on Hill 881 North with what was now estimated to be a regiment, well dug-in and well camouflaged. During the early morning of 3 May, Company E was hit by a heavy mortar attack, and then an assault by two NVA companies. A platoon from Company F reinforced Company E from the south; Company H counterattacked from the north. The enemy broke off and pulled back, pursued by air and artillery, leaving Hill 881 North to the Marines. The hill was secured 4 May and mopping up began the next day. The Marines found 35 sleeping bunkers with log and dirt overhead cover, many fighting holes, some weapons and ammunition, and 18 dead buried in hasty graves.

On 9 May, Company F, 2d Battalion, 3d Marines, patrolling two and a half miles north-northwest of Hill 881 North, found 203 more enemy graves. Not all the enemy in the vicinity were dead, however. While engaged in counting graves, Company F came under heavy fire, and Company E moved up to take off the pressure. In this sharp fire fight, 24 Marines were killed and 19 wounded. The enemy body count was 31.

Just after midnight that night, a seven-man reconnaissance team patrolling five miles north-northwest of Hill 881 North was attacked. In an attempt to extract them, three CH-46s were hit, one pilot was killed and a co-pilot and six crew members were wounded. On the



ground, four of the Marines were dead. The three remaining, all wounded, were lifted out after daylight.

On 12 May, Beacon Star was ended. The 2d Battalion, 3d Marines, was withdrawn from Khe Sanh and re-embarked aboard the Amphibious Ready Group. Next day, 13 May, the 3d Marines regimental headquarters (Lanigan) and 3d Battalion, 3d Marines (Wilder), were relieved at Khe Sanh by the 26th Marines regimental headquarters (Colonel John J. Padley), which had arrived on 25 April at Da Nang from Okinawa, and the 1st Battalion, 26th Marines (Lieutenant Colonel Donald E. Newton).

It was the beginning of a long tenure at Khe Sanh for the 26th Marines, and the end of the First Battle of Khe Sanh. Enemy losses were reported as 940 killed. There were also two prisoners and 41 captured weapons. Marine losses were 155 killed, 424 wounded.

Much credit for the victory at Khe Sanh must go to the 1st Marine Aircraft Wing. Between 24 April and 6 May they flew 1,004 sorties in the Khe Sanh area and used 1,502 tons of ordnance in around-the-clock close and direct air support missions. Fortunately, the Wing's inventory of medium attack aircraft had been doubled on 1 April, with the arrival of a second A-6A squadron, VMA(AW)-533 (Lieutenant Colonel Williams P. Brown). Also, not to be overlooked was the tremendous airlift provided by Marine helicopters and the fixed-wing KC-130s, employed in their primary role.

Meanwhile, east of Khe Sanh, along Route 9, Prairie IV had been grinding away since 20 April. The frustrated North Vietnamese attack against Khe Sanh was obviously only part of a comprehensive enemy offensive. Route 9 was being cut repeatedly by ambushes and sappers trying to hinder the reinforcement of Khe Sanh. Marine and ARVN positions south of the DMZ, particularly the fire support bases at Gio Linh and Camp Carroll, were fired on repeatedly, as were the logistic bases and aviation facilities at Dong Ha.

Early on 8 May, on the thirteenth anniversary of the fall of Dien Bien Phu, there were particularly heavy mortar, rocket, and artillery attacks (fired in large part from sanctuary north of the DMZ) against Gio Linh, Con Thien, Camp Carroll, and Dong Ha. At Con Thien, following a 250-round mortar barrage, two enemy battalions and a sapper unit assaulted the position of the 1st Battalion, 4th Marines (Lieutenant Colonel Theodore J. Willis). The main thrust hit Company D. Forty-four Marines were killed and 100 wounded, but the enemy lost 197 men killed and 10 taken prisoner, and over 100 weapons captured.

On 18 May the Marines began the ambitious task of ridding the southern half of the DMZ of enemy forces and installations in Operation Hickory, under control of 9th Marines (Colonel Edward E. Hammerbeck). It was the first time the Marines had ventured into the DMZ itself in force. Supported by a massive Navy-

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PHOTOGRAPH BY JERRY L. MEANS

Marine-Air Force air effort, executed in conjunction with a landing by SLF Alpha, and co-ordinated with a parallel sweep by the 1st ARVN Division, the planned scheme of maneuver was almost kadeidoscopic in its twistings and turnings.

Two Marine battalions the 2d Battalion, 9th Marines (Lieutenant Colonel John J. Peeler) and 2d Battalion, 26th Marines (Lieutenant Colonel William J. Masterpool) led off by moving northward from their attack positions near Con Thien. Almost simultaneously, a third battalion the 3d Battalion, 4th Marines (Lieutenant Colonel Wendell N. Vest), which had just arrived at Dong Ha by KC-130s from Okinawa was brought in by helicopter to positions northwest of Con Thien close against the Ben Hai River. The Marine thrusts precipitated heavy fighting that lasted 48 hours and killed 61 enemy.

Meanwhile, under cover of darkness, five battalions of the 1st ARVN Division in Operation Lam Son 54 moved north from Gio Linh along the axis of Route 1 to just below where Freedom Bridge crosses the Ben Hai, then peeled off the road to the right and left, and began sweeping southward.

Special Landing Force Alpha still 1st Battalion, 3d Marines (Wickwire) this same day made a co-ordinated amphibious assault, using helicopters and surface craft, into the northeasternmost corner of the DMZ, just below the mouth of the Ben Hai. The assault followed a tight time schedule to take advantage of the preparatory fires being delivered by five destroyers and two cruisers.

"The ARG accomplished its mission without a flaw," said Colonel Gallo, the SLF Alpha commander. "The beachmaster unit in conjunction with the shore party team also performed in an outstanding manner under heavy shelling by 85-mm. guns from north of the Ben Hai."

There was heavy resistance almost immediately. On the sandy, almost desert-like terrain, tracked vehicles played an important part. An attack westward along the river bank killed 61 enemy. The SLF then faced left and swept southward parallel to the ARVN sweep.

On 20 May SLF Bravo 2d Battalion, 3d Marines (DeLong) joined Hickory in Operation Belt Tight, moving directly into the DMZ just south of the Ben Hai. The battalion took some fire in the initial landing zones,

Whether he's transported by boat or by helicopter, eventually the rifleman has to get out and walk, as these Marines of 1/4 are doing. The flat country along the coast in I Corps quickly gives way to hills and then to mountains.

but by moving a few hundred meters south found smoother going. Seventy-one of the enemy were killed in the first 48 hours.

Part of Hickory was the removal of an estimated 13,000 civilians from the buffer zone to the recently-constructed Cam Lo refugee center, by truck, amtrac, and helicopter. The Vietnamese Police Field Forces supervised the relocation.

The operation was over on 28 May. As complicated as it was, it seemed to have completely surprised the enemy. Half a dozen enemy battalions were caught off guard south of the DMZ. Landing 3d Battalion, 4th Marines, and 2d Battalion, 3d Marines, behind the NVA forces undoubtedly helped to crack the enemy's defenses and caused him to withdraw northwest into the hills and northeast across the Ben Hai. At least 815 of the enemy were dead; 445 killed by the Marines, 370 by the ARVN. The enemy had been served notice that the southern half of the DMZ would no longer be inviolate to ground operations. His command and control arrangements had been disrupted (what appeared to be a division command post bunker complex had been overrun), he had lost much in supplies and ammunition, and his fortification had been dismantled. But the Marines were under no illusions that the results of the operation were permanent.

After Hickory, seven Marine battalions returned to Prairie IV, which now included all of Quang Tri Province, except the area of operations around Khe Sanh.

On 29 May, the 3d Battalion, 4th Marines (Vest), ran into heavy resistance on Hill 174, about five miles southwest of Con Thien. With the substantial support of mortars, artillery, and air strikes, the enemy was dislodged by 31 May. In mopping up, 20 bodies were counted. Marine losses were 6 killed, 91 wounded.

That was the last action of Prairie IV, in which 489 enemy had been killed, 9 captured, and 150 weapons seized. Losses to the Marines had been 164 killed, 999 wounded. The Prairie series was over.

The new operation, Cimarron, began 1 June with the same troops (now numbering six battalions), and in the same area, with action focused five miles southwest of Con Thien. Enemy action continued to be predominantly artillery and mortar attacks against Marine and ARVN combat bases, primarily Gio Linh and Con Thien. Our own actions were mainly counterbattery fires and heavy patrolling.

COMMAND CHANGES

A number of command changes took place in May and June. On 18 May, Brigadier General Jacob E. Glick relieved Brigadier General Metzger as Commanding General, 9th Amphibious Brigade, and Metzger became the assistant division commander, 3d Marine Division.

On 1 June, Lieutenant General Lewis "Uncle Lew" W. Walt, who had led III MAF for two years and was identified in the public's mind perhaps more than any other single individual with the Marine effort in Vietnam, was relieved by Lieutenant General Robert E. Cushman, Jr. Cushman, who had won a Navy Cross at Guam in 1944, had served for four years on the staff of Vice President Richard Nixon as Assistant for National Security Affairs. He had been Deputy Commander, III MAF, since April.

Major General Herman Nickerson, Jr., holder of the Army's Distinguished Service Cross for heroism in Korea and Commanding General, 1st Marine Division, since October 1966, became Deputy Commander, III MAF. Major General Donn J. Robertson, with a Navy Cross for Iwo Jima, became the new Commanding General, 1st Marine Division.

There was also a change of command for the 1st Marine Aircraft Wing. Major General Norman J. Anderson, most recently Commanding General, 2d Marine Aircraft Wing, relieved Major General Louis "Ben" Robertshaw on 2 June.

Marine Tactical Data System

On 4 June Marine Air Control Squadron 4 (MACS-4) (Lieutenant Colonel Conrad P. Buschmann) arrived at Da Nang from Camp Pendleton to relieve MACS-7 (Major Thomas K. Burk, Jr.). On 19 June, the relief completed, MACS-7 departed for Camp Pendleton. This was, however, more than the routine rotation of like units. The mission of a MACS is to "install, maintain, and operate ground facilities for aerial surveillance and control of friendly aircraft and missiles, and for the detection and interception of hostile aircraft and missiles in conducting anti-air warfare in support of the Fleet Marine Force." MACS-4 brought with it a new and revolutionary capability to discharge this mission; namely, the Marine Tactical Data System (MTDS).

PHOTOGRAPH BY JERRY L. MEANS

An Ontos, a vehicle peculiar to the Marine Corps, churns its way toward the hills. Intended for use against tanks, the Ontos has not found much employment in Vietnam, except against hostile field fortifications.

which was a mobile, land-based, semi-automatic air defense and control facility. Modular in design so that it could be brought ashore in increments, the MTDS at Da Nang was the first real-time air-transportable tactical data system to be employed in an active combat environment. The MTDS tied in with Seventh Fleet tactical data systems, and interfaced with in-country Air Force air control systems.

SPRING AND SUMMER WARFARE

Quang Tin Province

Fresh fighting broke out to the south, in Quang Tin Province, on 26 May when the 5th Marines with two battalions responded to intelligence reports that the 3d and 21st North Vietnamese Regiments were in the Nui Loc Son Basin. The new operation, called Union II, was co-ordinated, as before, with the 6th ARVN Regiment and the 1st ARVN Ranger Group. In the initial action, the 3d Battalion, 5th Marines (Esslinger) made a helicopter assault on elements of the 3d NVA Regiment near Vinh Huy some 19 miles northwest of Tam Ky, and fought two stiff actions the first day, killing 171 North Vietnamese. Thirty-seven Marines were killed, 66 wounded.

The enemy's 21st Regiment appeared to be to the southeast so the Marines faced around and reoriented their attack. The enemy's main position proved to be in the hills along the southern rim of the valley. On 2 June elements of the 1st Battalion, 5th Marines, pushed up against a well-fortified enemy position. A co-ordinated assault was made, with much use of artillery and 138 air strikes. In bunker-to-bunker fighting, 540 of the enemy were killed. The Marines lost 73 killed, 139 wounded.

On 5 June, after 11 days, Union II ended. Together, Union I and Union II had accounted for 1,566 enemy dead, 196 enemy captured, and 184 weapons seized. Marine losses for both operations totalled 220 killed, 714 wounded. For action in Union I and II, the 5th Marine Regiment (Reinforced) won the Presidential Unit Citation.

Operation Adair followed Union II. It began 15 June when Company K, 3d Battalion, 5th Marines, engaged what was estimated to be two companies near the railroad four miles south of Thang Binh. By nightfall, the 5th Marines, with two battalions, had cordoned off the area and 24 enemy were dead. SLF Bravo—2d Battalion, 3d Marines (Major Wendell O. Beard) and HMM-164 (Lieutenant Colonel Rodney D. McKitrick)—came ashore on 18 June in Operation Beacon Torch, landing six miles south of Hoi An. They pushed toward Pagoda Valley, a three-mile wide corridor much used as an avenue of approach by the Viet Cong. At noon, about two miles in from the beach, one company hit an estimated 100 enemy. Air and artillery were brought promptly to bear, the company closed, and 50 enemy were killed before the others broke off and faded away.

Adair was ended 25 June; closing count was 74 enemy dead, 11 Marines dead, 41 wounded. Operation Calhoun began the same day at the western end of the Nui Loc Son Valley, and in conjunction with Beacon Torch continued until both ended 2 July. The combined results were 115 enemy killed. Marine losses were 17 killed, 111 wounded.

Marines of the 2d Battalion, 5th Marines, with an LVT in support, fire at fleeing enemy troops during Operation Newcastle, which took place a few miles inland from Da Nang in March 1967. This violent action lasted three days.

Quang Tri Province

At Khe Sanh, operations—now named Crockett—continued. On 6 June shortly after midnight, about fifty of the enemy attacked a radio relay station on Hill 950, five miles north of the airstrip. A nearby reconnaissance team brought artillery to bear and the 18-man Marine radio detachment succeeded in driving the enemy off, although six Marines were killed and two wounded. The North Vietnamese left behind ten dead. More important, a prisoner was taken who confirmed the presence of the North Vietnamese 325C Division. Next day, 7 June, Company B, 1st Battalion, 26th Marines, engaged two enemy companies a mile northwest of Hill 881 South. The Marine company was reinforced and there was a heavy, two-hour fight. The enemy broke contact, leaving 63 dead on the field. The Marines had lost 18 killed, 27 wounded.

In the face of the enemy's buildup around Khe Sanh, the 3d Battalion, 26th Marines (Hoch), was moved in to join the 1st Battalion. With the increase in forces, 26th Marines was able to patrol and man outposts in the surrounding hills more extensively.

During the night of 26/27 June there were heavy mortar, artillery, and rocket attacks against five separate Marine positions, killing 5 Marines, wounding 125. A patrol from a combined action platoon, looking for mortar positions next morning, ran into two enemy companies on Hill 689, one mile west of Hill 881 South. Companies I and L, 3d Battalion, 26th Marines, came up by foot and by helicopter, and Hill 689 was taken by nightfall. Twenty-eight enemy bodies were counted: Marines losses were 10 killed, 28 wounded.

This action appeared to end the enemy's probing. There were fewer contacts in the first two weeks of July and Crockett was terminated 16 July; since 13 May 206 enemy had been killed, 2 captured, 26 weapons taken. The Marines had lost 52 killed, 555 wounded. With Crockett ended, Operation Ardmore was begun.

OFFICIAL PHOTOGRAPH BY LANCE CORPORAL MC CLORY

Elsewhere in Quang Tri Province, Operation Cimarron had gone on with five Marine battalions. During its course, a "firebreak" 600 meters wide and 13.5 kilometers long was cut from Con Thien through Gio Linh to the sea. The plan was to develop this cleared area, skinned of all significant vegetation, into a major obstacle to troop movement, using barbed wire, minefields, sensors, watchtowers, and strongpoints. By the end of June, the 11th Engineer Battalion had invested 10,000 man-hours and nearly 5,000 tractor-hours in its development.

On 2 July Cimarron was ended and Operation Buffalo begun. In its 31 days Cimarron cost the enemy 245 dead. The Marines lost 38 killed, 470 wounded. During the course of Cimarron, Marine aircraft flew 1,046 strike missions and naval guns fired 245 missions.

Buffalo was a short and violent operation. On the morning of 2 July, Company B, 1st Battalion, 9th Marines, patrolling about a mile and a half northeast of Con Thien, met an entrenched enemy force, apparently small. As Company B moved against it, the enemy riposted with heavy attacks against the Marine front and flanks. Company B was split by the action into three groups. Company C, on its way to help, also took heavy casualties. The enemy was supporting his attacks with massed mortars and artillery. The remainder of the 1st Battalion (Major Donald J. Fulham) joined the fight. The 3d Battalion, 9th Marines (Major Williard J. Woodring, Jr.), was brought in from Dong Ha by helicopter and at midafternoon jumped off in an attack against the enemy's left flank.

Estimates of the size of the enemy force rose to five battalions. During the first day's fighting 84 Marines were killed, 190 were wounded, one was reported missing. On the second day, 3 July, SLF Alpha—1st Battalion, 3d Marines (Wickwire), and HMM-362 Lieutenant Colonel Nick J. Kapetan)—landed one mile southeast of Con Thien. Next day, 4 July, SLF Bravo—2d Battalion, 3d Marines (Beard), and HMM-164 (McKitrick)—came in, landing near Cam Lo and attacking north.

The fifth of July was quiet. On 6 July, the enemy attacked the 2d Battalion, 3d Marines, near Con Thien, and was beaten off, leaving 35 dead. While this was going on, Company A, 1st Battalion, 9th Marines, located some 200 North Vietnamese troops in a draw two miles northeast of Con Thien, brought artillery to bear, and then closed. Enemy dead were counted at 154; Company A had no casualties. About midnight on the same day, the 3d Battalion, 9th Marines, surprised an enemy battalion moving in column down a trail three miles northeast of Con Thien, and killed 155, losing three of their own. Fighting of almost equal intensity continued through 9 July, and then fell off. Between 2 July and 10 July, in support of Buffalo, Marine aviation delivered 1,066 tons of ordnance, Marine and Army artillery fired 40,000 rounds, and ships of the Seventh Fleet shot 1,500 rounds of five- and eight-inch shells. The operation was ended on 14 July. The enemy had lost 1,301 dead, two prisoners, and 100 weapons, including 21 mortars and machine guns; Marine losses were 159 killed, 45 wounded.

On the heels of Buffalo, a sweep of the southern half of the DMZ was ordered. Begun on 14 July and called Hickory II, its scheme of maneuver was almost identical with that of Hickory I. The 2d Battalion, 3d Marines (Beard), screened the left flank. Two other Marine battalions drove north toward the Ben Hai, wheeled around, and swept southward to the Cam Lo River, the idea being to clear the area south of the DMZ called "Leatherneck Square." Three ARVN battalions moved up Route 1 to the Ben Hai, peeled off to the right and left, and started southward. On the coast, the 1st Amphibian Tractor Battalion (Lieutenant Colonel Albert R. Bowman, II) churned northward through the sand from the Cua Viet. There was little resistance. The sharpest action took place on 15 July, when the 1st Amtracs just east of Gio Linh killed 25 of the enemy. Hickory II was over on 16 July. The enemy had lost 57 men and 19 weapons. Marine casualties were 4 killed, 99 wounded.

Thua Thien Province

During the spring and summer, things were relatively quiet for the 4th Marines in Thua Thien Province. The general mission of the regiment was to protect the Phu Bai base area, screen the enemy's avenues of approach to Hue, and support the 1st ARVN Division's Revolutionary Development efforts. Route 1 was to be kept open north to Quang Tri and south to Quang Nam. Chinook II, which had begun 17 February, ended 4 April, with 104 enemy dead and five prisoners and 30 weapons captured. Shawnee, a three-battalion effort, began 22 April. By mid-May it was necessary to shift two battalions north to the heavier fighting along the DMZ. On 22 May Shawnee was cut back to one battalion and redesignated Choctaw. On 2 June, SLF Alpha—1st Battalion, 3d Marines (Wickwire), and HMM-263 (Kirby)—landed 18 miles northeast of Hue in Operation Bear Bite. The Choctaw battalion had strung itself out along Route 1 to act as a blocking force and SLF pushed

toward them, but results were slight. After ten days, the SLF re-embarked, claiming 21 enemy killed. Three Marines were dead, 29 wounded. Choctaw went on until 10 July. The tally for Shawnee and Choctaw together was 292 enemy killed, 27 prisoners, 124 weapons. Marine losses totalled 31 killed, 292 wounded.

Since early spring it had been apparent that the enemy was developing a major logistics base in the A Shau Valley west of Hue. They had held virtually uncontested control of the valley since the fall of the Special Forces camp at A Shau in the spring of 1966.

On 3 June, the 4th Marines (Colonel Roy H. Thompson) with one battalion and engineers, set out in Operation Cumberland to establish a fire base some 17 miles west of Phu Bai to counter the threat in the A Shau Valley. The first step was to open Route 547. There was very little enemy interference and by the end of June 20 kilometers of road had been rehabilitated. On 3 August elements of two batteries of long-range U. S. Army 175-mm. guns went into action from the new fire base. Cumberland went on until 15 September, when it was closed down because of the impending monsoon.

Quang Ngai Province

Meanwhile, on 7 May, 1st Brigade, 101st Airborne Division (Brigadier General Salve H. Matheson, U. S. Army), had closed Duc Pho in southern Quang Ngai Province, adding three more battalions to Task Force Oregon's strength, making it equivalent to a division. Four days later Operation Malheur was begun. Since Desoto, Viet Cong main force and North Vietnamese Army units had been lingering just west of Duc Pho. In a series of company size actions, the Army, working west of Route 1, drove northward as far as Mo Duc. Malheur I ended 8 June and Malheur II was begun the same day. Movement was now southward; the area west of Route 1 was cleared to the Binh Dinh border. Malheur II ended 2 August. Breathing room had been created for Revolutionary Development in southern Quang Ngai Province and III MAF could boast that Route 1 was open for the full length of I Corps Tactical Zone. In the Malheur series, the U. S. Army killed a total of 480 enemy, took 28 prisoners, and seized 308 weapons. American losses were 45 killed, 565 wounded.

Malheur II was succeeded by Hood River. This Task Force Oregon operation, in conjunction with the Korean Marine Brigade's Dragon Head V and 2d ARVN Division's Lien Ket 110, lasted 11 days in an area 25 miles west of Quang Ngai City. When the operation closed out on 13 August, enemy losses stood at 78 killed, 7 prisoners, and 45 weapons. Army losses were 3 killed, 38 wounded.

Late Summer Battles

South of the DMZ, in Quang Tri Province, Kingfisher was begun 16 July with five battalions. Succeeding the Prairie-Cimarron series, its mission was the same: to deny the enemy's entry into the province. Contact was insignificant until 28 July when the 2d Battalion, 9th Marines (Lieutenant Colonel William D. Kent), working in the DMZ, discovered an unoccupied enemy base at Thon Cam Son, five miles northwest of Con Thien. With tanks and other tracked vehicles to provide crushing action, the battalion systematically destroyed over 150 bunkers. Next morning, Company H, at the head of the battalion column moving south, ran into heavy resistance. Companies F and G joined the fight. Company I from the 3d Battalion, 4th Marines, came up from the south against the enemy's rear. The North Vietnamese troops broke off, leaving 48 dead. Marine losses were 24 killed and 142 wounded seriously enough to require evacuation.

For the next several weeks skirmishes were small and scattered. Then on 21 August, at about noon, a Marine convoy was caught in an ambush where Route 9 passes through a defile just north of Ca Lu. One Marine company from the 3d Battalion, 3d Marines, came down from Thon Son Lam, another moved up from Ca Lu, and the NVA ambushers—estimated to be a battalion—were themselves caught. Air and artillery support were liberally used during the six-hour fight. At dusk the enemy broke off and fled into the mountains to the west. One hundred and nine NVA were confirmed killed and it was guessed that an additional 305 were dead. Three U. S. Marines and three soldiers were dead, 35 others wounded.

On 7 September there was a replay of the attempted ambush at almost exactly the same site. Again, this time at mid-morning, a Marine convoy was ambushed in the defile; Marine companies again closed from north and south. This time the fight lasted eight hours and when it ended 92 NVA were confirmed dead, 93 more were probably dead; five Americans were dead and 56 wounded.

West of Ca Lu, at Khe Sanh, things were singularly quiet. The 26th Marines (Padley), engaged in Operation Ardmore through the month of August, made no significant contact.

In Quang Nam Province, the enemy made a heavy rocket attack on the Da Nang Air Base shortly after midnight, 15 July, landing fifty 122-mm. rockets on tar-

get. Within three minutes, an Air Force C-47 "dragon" on air alert had the launching sites under fire. Two minutes later artillery counterbattery fires were underway. The launchers were in Hoa Hung Village, six miles southwest of Da Nang. There were five firing sites, each with six positions. Eight U. S. airmen were killed, 138 wounded; 37 Marines were wounded. Material damage was considerable. The Marines lost two F-8Es, and a third was badly damaged. The Air Force lost two C-130s and six F-4Cs. Several other Air Force aircraft were badly damaged. This was the first time the Russian-made 122-mm. rocket lighter, more accurate, and with a longer range than the 140-mm., 10,100 meters compared to 8,800 had been used south of the DMZ in I Corps, and it soon became the enemy's favorite weapon for stand-off attacks.

The densely populated area south of the river at Hoi An and east of Route 1 continued to be a problem. On 1 August, the 1st Marines (Radics) in Operation Pike boxed off the area with two battalions, then conducted a sweep. One hundred enemy were killed; Marine casualties were 8 dead, 60 wounded.

Each one keeping his distance from his neighbor, Marines cross slippery dikes in rice paddies not far from Thang Binh about twenty-five miles south of Da Nang during Operation Union in April 1967.

South and west of here, in the familiar Thang Binh Tam Ky-Hiep Duc triangle, the enemy was recovering from the damage done by Union II. On 11 August a new operation, Cochise, was mounted by the 5th Marines (Colonel Stanley Davis), using three Marine battalions including SLF Alpha. As before, the new operation was co-ordinated with the 2d ARVN Division and Ranger elements. On 12 August, a Ranger battalion engaged two enemy battalions 16 miles west of Tam Ky; the Rangers killed 197, took seven prisoners and 42 weapons. Four days later, on the night of 16 August, the enemy probed Marine defensive positions twice and was turned back. The next morning, 17 August, a Marine helicopter crew spied a Viet Cong company eight miles west of Tam Ky. Company L, 3d Battalion, 1st Marines, was helilifted into the area after Company I, 3d Battalion, 5th Marines, established blocking positions; 40 Viet Cong were killed and 15 weapons captured. Cochise was ended on 28 August. Of the enemy 156 were killed and 13 captured; 41 weapons were taken. Marine losses were 10 killed, 81 wounded. The ARVN in their accompanying operation, Lien Ket 112, killed 206 enemy soldiers and captured 42 weapons. Eighty-two ARVN were reported dead, 170 wounded, and 3 missing.

South of the Cochise area, Task Force Oregon was concurrently conducting Operation Benton. This brigade-size operation had begun on 14 August with a helo landing against a suspected enemy base area. The Army then drove south and east. The enemy avoided any large-scale action but there were numerous skirmishes involving platoons and companies. By the end of the operation, 1 September, the enemy had lost 397 men killed and nine prisoners, and 158 weapons. U. S. Army losses were 41 killed, 263 wounded.

The results of Cochise and Benton had scarcely been posted when fresh fighting flared up in the Nui Loc Son Basin. At daybreak, 4 September, Companies B and D, 1st Battalion, 5th Marines (Hilgartner), were heavily engaged by an enemy battalion near Hill 63. Companies K and M from the 3d Battalion, 5th Marines (Lieutenant Colonel Charles B. Webster), moved by helo at 0900 into an attack position northeast of the action while Company I, with tanks, came overland from Thang Binh. In 36 hours of fighting, the Marines killed 190 enemy soldiers and captured 54 weapons. The new operation was named Swift. There was heavy fighting again on 6 September, this time three miles east of Nui Loc Son. Companies of the enemy moved against Marine positions in a series of probes; the Marines retaliated with a night counterattack. At 0200 the enemy broke off, leaving 150 dead on the field. On 7 September, Task Force X-Ray (Brigadier General Foster C. Lahue, U. S. Marine Corps) was activated to take over command and control of the fighting in the Nui Luc Son Basin and on 10 September, the 1st Battalion, 14th Infantry Regiment (Lieutenant Colonel Peter P. Petro, U. S. Army) joined the operation. Swift went on until 15 September; the final count being 571 enemy dead, eight prisoners, and 85 captured weapons. American casualties were 127 dead, 362 wounded.

Enemy Attacks on U. S. Bases

The end of August and beginning of September saw additional attacks by fire on III MAF's major bases. On 28 August Dong Ha was hit by three separate attacks, totalling perhaps 150 rocket and artillery rounds, which destroyed two aircraft and damaged 24. A fuel dump and an ammunition dump exploded. One Marine was killed; 17 were slightly wounded. The same night, Marble Mountain Air Facility was hit by twenty-four 140-mm. rockets. Three helicopters were destroyed and 20 were damaged to varying extent. Five Marines were dead, 84 wounded. Two days later, on 30 August, 50 mortar rounds hit Phu Bai, causing significant damage to four helicopters, light damage to 14 more. Three Marines were killed and 54 wounded. On 2 September, at Da Nang, the air base and also the Force Logistic Command area were hit by 140-mm. and 122-mm. rockets. Three Air Force transports were heavily damaged; 9 U. S. airmen were wounded. At the Force Logistic Command, one Marine was killed, 61 wounded. Fortunately, the majority of the wounds caused by all these rocket and mortar attacks were slight. Judging from the number of positions and amount of abandoned ordnance found by patrols working out of Dong Ha and Da Nang, there was reason to believe that the bombardments, if they had not been interrupted by swift American reaction, might have been much heavier.

"McNAMARA'S WALL"

On 7 September, Defense Secretary McNamara announced a decision to construct a barrier along the northern border of South Vietnam, the equipment for

the barrier to range from "barbed wire to highly sophisticated devices." Secretary McNamara declined to say whether the barrier would extend westward into Laos across the Ho Chi Minh Trail.

President-elect Nguyen Van Thieu in Saigon was more outspoken. He stressed that the barrier would only be in South Vietnamese territory, "not across the border of Laos. I don't believe the Laotian government will allow it, unless they change their policies. . . . We already have a barrier between Gio Linh and Con Thien that is 11 kilometers (7 miles) and now we would like to extend it to the west and make it better."

Mr. McNamara accompanied his announcement with a restriction barring any further public discussion of the barrier by members of the Defense Department, military or civilian.

In the August hearings by the Senate Subcommittee on Preparedness, chaired by Senator John Stennis of Mississippi, the value of a barrier system had been discussed as an alternative or supplement to the bombing of North Vietnam. Even from the heavily censored transcripts which were eventually released it was obvious that military opinion of the barrier plan was mixed. General Earle G. Wheeler, Chairman of the Joint Chiefs of Staff, gave a qualified endorsement. General Harold K. Johnson, Chief of Staff of the Army, was more pessimistic. "I think it is going to have minimum effectiveness for the cost that has been associated with it. . . . My own description of it is that it is like closing the window and leaving the door open."

General Wallace M. Greene, Jr., the Marine Commandant, was characteristically direct in his evaluation. "From the very beginning I have been opposed to this project," he testified.

The concept of a physical barrier across the waist of Vietnam was not new, of course. During the spring and summer months discussion and conjecture in the press increased as the beginnings of a fortified system south of the DMZ became more obvious. The "firebreak" from Con Thien to Gio Linh and the fortification of strong points along Route 9 were visible for all to see.

"McNamara's Wall," as it was quickly labeled, brought quick and facile comparisons in the press to other defensive systems, including the Great Wall of China, the Maginot Line, and most pertinent comparison of all the two great walls of Dong Hoi and Truong Duc which run about 25 miles north of the DMZ and which were erected in the seventeenth century by the Nguyen dynasty to hold off the invading Trinh emperors.

A North Vietnamese soldier gives himself up to men of A Company, 1st Battalion, 9th Marines, as they advance toward the Demilitarized Zone during Operation Prairie II in March 1967. This scene took place about 2,000 meters below the DMZ.

There was very little enthusiasm for the barrier among the Marines deployed south of the DMZ. "Hell," said a lance corporal, "They'll just walk around it." A Marine officer expanded on this thesis. "With these bastards, you'd have to build the zone all the way to India and it would take the whole Marine Corps and half the Army to guard it," he said. "Even then they'd probably burrow under it."

THE SIEGE OF CON THIEN

On 11 September, Task Force Oregon began Operation Wheeler, 20 kilometers west of Tam Ky, with four battalions under the 1st Brigade, 101st Airborne Division. On 22 September the semi-permanent combination of elements composing Task Force Oregon was given permanent cohesion as the 23d Infantry (or Americal) Division. On 4 October, the 3d Brigade, 1st Cavalry Division (Airmobile) (Colonel James O. McKenna, U. S. Army), arrived by air at Chu Lai, relieved the 5th Marines of its responsibilities, and on the same day began Operation Wallowa in the much-fought-over area west of Thang Binh. The 5th Marines moved to Da Nang, making it possible for the 1st Marine Division to détach the 1st Marines, which would move north to join the 3d Marine Division.

The 3d Marine Division in September focused its attention largely on what was called the Kingfisher area, specifically the defense of Con Thien. Represented in the press as a beleaguered fortress (a "little Dien Bien Phu") this hill, 158 meters high, scraped bare down to the raw red laterite, was never occupied by much more than a battalion. Most of the fighting was actually some distance from it, as the enemy tried to maneuver into an attack position.

The number of contacts with the enemy increased in the first few days of the month. Then on 4 September a platoon from Company I of 3d Battalion, 4th Marines (Lieutenant Colonel Lee R. Bendell), came up against a North Vietnamese company about four miles south of Con Thien. The rest of Company I joined the fight, and Company M came up with tanks. Thirty-seven enemy soldiers were killed. Three days later, on 7 September, an almost exact repetition took place: Company I from the 3d Battalion, 26th Marines (Lieutenant Colonel Harry L. Alderman), ran into heavy enemy resistance

OFFICIAL PHOTOGRAPH BY LANCE CORPORAL SCOTT M. LEIGHTY

three miles south of Con Thien. Company K joined the fight with tanks. Fifty-one NVA soldiers were killed in a five-hour fight. Then on 10 September, the 3d Battalion, 26th Marines, engaged what appeared to be an entire regiment three and a half miles southwest of Con Thien. The fight began in the early evening and lasted four hours. The enemy broke off at about 2200, having lost 140 men confirmed dead, and probably an additional 315.

About 0330 on the morning of 13 September, an enemy company, after a heavy artillery attack, probed the northeastern sector of the Con Thien perimeter itself, but was thrown back. At 0750 on 21 September, Companies E and H of 2d Battalion, 4th Marines (Lieutenant Colonel James W. Hammond, Jr.), ran into heavy automatic fire from an entrenched enemy. In the hard day's fighting that followed, 39 enemy soldiers were confirmed dead and 149 were suspected dead. During the six-day period, 18 to 24 September, Con Thien was shelled 24 times. On 23 September, Brigadier General Metzger, the assistant division commander, told the press that the North Vietnamese were "there in strength and our firepower isn't going to drive them away." He went on to say that if the enemy did assault Con Thien they would pay a "high price." On 25 September, Marines in the Kingfisher area counted 1,190 incoming rounds of mortars, artillery, and rockets, most of them hitting Con Thien.

Perhaps the enemy was only emptying his magazines before withdrawing, because after this day of heavy fire the pressure against Con Thien subsided. On 4 October, MACV headquarters in Saigon announced that American firepower, including a monumental effort by B-52s, had broken the back of the month-long siege of Con Thien and that the enemy was in retreat. General Westmoreland added that the enemy had suffered a "crushing defeat."

THE CH-46 HELICOPTER AND THE M-16

On 28 September, the *New York Times* ran a story announcing that about two-fifths of the Marine helicopters used to carry food, water, and ammunition to the outposts along the DMZ had been grounded because of a structural deficiency. According to the story, all CH-46As were grounded because "their tail assemblies were falling apart."

There were two series of CH-46 with the Marines in South Vietnam the CH-46A and the CH-46D and they had given excellent service since they were deployed in April 1966. There had been a number of accidents. The first helicopter was lost September 1966 at Marble Mountain Air Facility. Another was lost in October and

in May 1967 a CH-46D went down at sea southeast of Da Nang. In all, eight accidents had occurred in Southeast Asia and four in the continental United States. The causes, when they could be determined, were varied. A modification program was begun in October 1967. It addressed itself to general structural strengthening and systems improvement and was completed in December.

A much less complicated piece of equipment—the M-16 rifle—was also the subject of debate and criticism during the summer and fall of 1967.

On 22 May, Congressman James J. Howard of New Jersey had read to the House of Representatives a letter from an unidentified Marine contending that jammed M-16s had been responsible for many American deaths in the fight for Hill 881 north of Khe Sanh.

On 27 May, General Greene replied that the Marine Corps had found the M-16 "ideally suited for the jungle type of environment" encountered in Vietnam.

The decision to equip Marine forces in the Western Pacific with the M-16 had been made in March 1966, after consideration of the request by Commander, U. S. Military Assistance Command, made in December 1965, for a lightweight weapon with a high rate of fire to replace the M-14. The Marine Corps had been testing other lightweight weapons systems, but the fast-firing, hard-hitting M-16 was in production, readily available, and the choice of the Army. Therefore, after further testing by the Marine Corps, the rifle—manufactured by Colt—was procured in quantity from the Army at a cost to the Marines of $121.00 per rifle, and issued to maneuver units in March and April 1967, in time for the heavy fighting at Khe Sanh.

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Congressman Richard H. Ichord of Missouri was named chairman of a House Armed Services subcommittee to investigate the weapon's performance. Mr. Ichord spent the first eleven days of June in Vietnam studying the weapon's alleged deficiencies.

He found many reasons to suspect that the M-16A1 was giving less than the best performance. The kind of lubricant being used was challenged, as was the type of powder used in the ammunition. Working with a new weapon, issued on the battlefield, the Marines hadn't built up a reservoir of experience. Training and familiarization had been necessarily limited. There was some shortage of cleaning gear.

In July, General Cushman told the press that the Marines were "well on their way" to solving any problems resulting from the introduction of the M-16. He said the weapon was "not as forgiving as the other one we used to have," and noted that "no weapon will forgive you if you neglect it."

By the end of October, all the M-16s in the hands of Marines in Vietnam had been fitted with a modified buffer group to reduce the cyclic rate of fire. By the end of the year, a program to fit all weapons with chrome-plated chambers to improve extraction was also well under way. These modifications, together with improved training, more attention to care and cleaning, and improved quality control of the 5.56-mm. ammunition brought the malfunction rate down to about one every 2,000 rounds. In any case, no real evidence was found to support the earlier contentions that the weapon's shortcomings had caused American deaths. In fact, the commander of the company that made the final assault against Hill 881 stated that he could not have taken the hill without the M-16.

FALL FIGHTING

On 5 October, the 1st Marines (Colonel Herbert E. Ing, Jr.) with two battalions moved north from Da Nang to Quang Tri. On 11 October they launched Operation Medina in the rugged Hai Lang National Forest south of Quang Tri City. This was an enemy base area, suspected of harboring elements of the 5th and 6th NVA Regiments. Special Landing Force Alpha, in conjunction with Medina, executed Operation Bastion Hill, landing BLT 1/3 (Lieutenant Colonel Alfred I. Thomas) to join the 1st Marines. Also co-ordinated with Medina were the operations of two ARVN airborne battalions. Contact was light at the start. A few caches of rice and ammunition were uncovered. Then on 20 October, the Marines flushed a North Vietnamese company which fled headlong into the ARVN. The Vietnamese airborne troopers, with the help of Marine air and artillery, killed 197 enemy soldiers.

The same day, 20 October, BLT 1/3 disengaged itself, re-embarked, and moved down to Thua Thien Province to join in Operation Fremont. In the joint operations Medina and Bastion Hill, 64 enemy soldiers had been killed; 35 Marines were killed, 174 wounded. 1st Marines continued to work in Hai Lang Forest, in a new operation called Osceola.

On 29 October the POL dump at the Force Logistic Support Unit at Dong Ha was hit by 60 artillery rounds. Five Marines were killed, and 10,000 gallons of aviation fuel were lost.

Third Marine Division closed the books on Kingfisher on 31 October. Since 16 July, 1,117 enemy had been killed, 5 prisoners taken, 155 weapons captured. The Marines had lost 340 killed and 3,086 wounded.

PHOTOGRAPH BY JERRY L. MEANS

Doing the job for which she was designed, the USS *White River* (LSMR-536) provides 5-inch gun and rocket support for Marines near Chu Lai.

West of Kingfisher, in the Khe Sanh area, Operation Ardmore also ended on 31 October. Pressure against Khe Sanh during Ardmore, which covered the same span of time as Kingfisher, had been strangely light. Final casualty figures were 113 enemy dead; 10 Marines died in action, 39 Marines were wounded.

To the south in Thua Thien Province, another 3d Marine Division operation, Fremont, which had begun on 10 July, also terminated on 31 October. Conducted in two-battalion strength for most of its duration, Fremont screened the western approaches to the Hue-Phu Bai area. It accounted for 123 enemy killed. Marine losses were 17 dead, 260 wounded.

At the far end of I Corps Tactical Zone, the 198th Light Infantry Brigade (Colonel J. R. Waldie, U. S. Army) arrived by air and sea at Duc Pho on 28 October with three maneuver battalions, and joined the Americal Division.

Replacing those operations which had been terminated at the end of October, a new series was begun on 1 November.

The old Kingfisher area was divided into two parts. The eastern half, encompassing Dong Ha, Gio Linh, Con Thien, and Cam Lo became Operation Kentucky, involving four battalions under the control of the 9th Marines (Colonel Richard B. Smith). The western half, including Camp Carroll, the Rockpile, and Ca Lu, became Operation Lancaster, under 3d Marines (Colonel Joseph E. Loprete) with two battalions.

Defense of the Khe Sanh area was now designated Operation Scotland and continued under the 26th Marines (Colonel David E. Lownds) with one battalion.

The job of screening the approaches to Hue, formerly called Fremont, was designated Operation Neosho, conducted by the 4th Marines (Colonel William L. Dick) with one battalion.

In general, everything west of Highway One in the northern two provinces of Quang Tri and Thua Thien was the tactical responsibility of the 3d Marine Division; everything east of the road, the responsibility of the 1st ARVN Division.

An exception was Operation Napoleon, begun 4 November in an area blocked out at the mouth of the Cua Viet River by the 1st Amphibian Tractor Battalion reinforced by Company A, 1st Battalion, 1st Marines. Security of this area was essential to safe waterborne transportation in the two northern provinces, the means by which the greatest tonnage of supplies and equipment was now being moved.

As these new operations were getting underway, III MAF was visited on 1 November by Vice President Hubert H. Humphrey. The Vice President, who was ending a three-day visit to Vietnam, flew within five miles of the DMZ in a four-engined transport, close enough to see U. S. artillery fire. On the ground at Da Nang, he presented the Presidential Unit Citation to the 3d Marine Division, Reinforced, for "extraordinary heroism in action against hostile forces in the five northern provinces of Vietnam, during the period 8 March 1965 to 15 September 1967."

On 6 November, Operation Essex was begun six miles south of An Hoa in the so-called "Antenna Valley" by the 5th Marines (Colonel Robert D. Bohn) with one battalion, west and north of their old Union area, where the Army was now operating. On 11 November, Americal Division combined operations Wallowa and Wheeler into a single operation.

On 2 November and again on 8 November the Viet

Cong launched vicious raids against the district headquarters and refugee settlements at Dai Loc and Hieu Duc 15 miles southwest of Da Nang; 22 civilians were killed, 42 wounded, and 57 counted as missing. The raids destroyed 559 houses, and left 625 families homeless. In retaliation, the Marines launched Operation Foster. At 0900, 13 November, SLF Bravo now BLT 2/3 (Lieutenant Colonel Henry Englisch) landed in the foothills north of An Hoa and well to the west of Dai Loc to carry out a supporting action, Operation Badger Hunt. At 1400 the same day, 3d Battalion, 7th Marines (Lieutenant Colonel Roger H. Barnard) moved in just west of Dai Loc and north of the Thu Bon River.

Initially, Foster and Badger Hunt closed on nothing, but on 26 November there was a heavy engagement. By the time the operation was over on 30 November, 125 enemy had been killed, at a cost of 21 Marines dead, 137 wounded.

Operation Essex in Antenna Valley, opposing elements of the 2d NVA Regiment, had ended on 17 November with 72 enemy dead, 37 Marines killed, and 122 Marines wounded.

To the north, in the 3d Marine Division's area of operations, Major General Hochmuth was killed on 14 November when a UH-1E carrying him to Dong Ha exploded and crashed five miles northwest of Hue. Major General Rathvon McC. Tompkins, winner of the Navy Cross at Saipan and Commanding General of the Marine Corps Recruit Depot at Parris Island, was named to replace General Hochmuth. Brigadier General Metzger was acting division commander until Tompkins' arrival on 28 November.

On 29 November, the 3d Marine Division began clearing the area between Con Thien and Gio Linh in preparation for further development of the barrier, using three Marine battalions in conjunction with three ARVN battalions. The next day one of the battalions, 2d Battalion, 9th Marines, found and attacked a North Vietnamese company entrenched two miles northeast of Con Thien. The fight began about 1345 and was over by 1800, with the Marines taking the position, killing 40 NVA soldiers, and picking up 21 weapons.

December saw the continuation of the operations begun in November. As the year ended, the books were still open on the largest of them.

Most of the action near the DMZ was in the Kentucky area, centered around Con Thien. Two SLF operations were run in December. Fortress Ridge was a landing ten kilometers northeast of Dong Ha, 21 to 24 December, made by BLT 3/1 (Lieutenant Colonel Max McQuown) and HMM-262 (Lieutenant Colonel Melvin J. Steinberg). Ten Marines were killed, 28 wounded; only 10 enemy dead were counted. Badger Tooth was a landing by the same Marine units against the coast near the Quang Tri–Thua Thien provincial boundary. Again the cost was high for the results gained: 48 Marines died, 87 were wounded; enemy dead numbered 40.

West of Kentucky, both the Lancaster and Khe Sanh areas were quiet. Almost no contacts were being registered, but aerial reconnaissance indicated that north of the DMZ troops and supplies were being positioned, apparently for a fresh thrust at Khe Sanh. To meet the new threat, 3d Battalion, 26th Marines (Lieutenant Colonel Robert C. Needham), was added to the Khe Sanh defenses.

On 19 December the 11th Infantry Brigade (Brigadier General Andy A. Lipscomb, U. S. Army) arrived at Duc Pho and was added to the Americal Division, bringing the number of brigades in the Division to five, at least for the moment. Operation Muscatine was begun the same day. By the end of the month, U. S. soldiers in Muscatine had killed 58 of the enemy and captured 34 weapons. The omnibus Army operation west of Tam Ky, Wheeler Wallowa, also continued with results posted, as of 31 December, at 3,188 enemy dead, 126 prisoners taken, and 743 weapons captured. U. S. Army losses for Wheeler Wallowa stood at 258 U. S. dead, 964 wounded.

Arrival of additional U. S. Army forces in the Americal Division area of operations made it possible to move the Korean Marine brigade northward from Chu Lai. The Koreans since 10 November had been executing Operation Dragon Tail 16 kilometers northwest of Quang Ngai City. This was terminated on 21 December and next day the Blue Dragon Brigade moved north to a new operating area south of Da Nang and west of Hoi An, and began Operation Flying Dragon.

THE YEAR ENDS

Military Progress

The strength of III MAF on 31 December 1967 stood at 81,115: 77,679 U. S. Marines and 3,436 U. S. Navy. The net increase for the year was 10,737 Marines and sailors. The year had started with 18 Marine infantry battalions in country; it ended with 21 Marine battalions. In addition to the Marines, there were 31 ARVN battalions, 15 U. S. Army battalions, and 4 Korean Marine battalions (a new one had been activated), so that altogether there were now 71 Free World infantry battalions in I Corps Tactical Zone.

The 3d Marine Division now had five infantry regiments in the northern two provinces. In Quang Tri Province, the 26th Marines continued to hold Khe Sanh; the 9th Marines were at Dong Ha, the 3d Marines west of Dong Ha, and the 1st Marines at Quang Tri City. In Thua Thien Province 4th Marines were north and west of Hue.

The 1st Marine Division had two regiments, 5th and 7th Marines, in Quang Nam Province.

To the south, the Americal Division had the 196th Light Infantry Brigade and the 3d Brigade, 1st Cavalry Division, operating west of Tam Ky in Quang Tin Province. Operating from Chu Lai and Duc Pho in Quang Ngai Province were the 198th Light Infantry Brigade, the 11th Infantry Brigade, and the 3d Brigade, 4th Infantry Division (the redesignated 3d Brigade, 25th Infantry Division). (The 1st Brigade, 101st Airborne Division had departed 23–26 November.)

The year had begun with the Marines spread out through all five provinces; now they were concentrated in the northern three, with four of the seven Marine infantry regiments deployed essentially along Route 9 south of the DMZ in Quang Tri Province.

Summing up the year's combat operations before the U. S. Senate's Committee on Armed Services on 14 February 1968, the new Commandant of the Marine Corps, General Leonard F. Chapman, Jr., had this to say:

"During 1967 Marines conducted:

"Over 110 major operations, of battalion size or larger, and each one of those which resulted in major contact with the enemy produced a victory for the Free World.

"More than 356,000 small unit operations--the company actions, the platoon and squad-sized patrols and ambushes, which go on constantly, day and night, in order to deny freedom of movement to the guerrilla and to sever his connections with the people.

"In these two types of Marine operations alone, there were 17,876 enemy soldiers destroyed during 1967."

Summarizing the contribution of Marine aviation before the same committee, General Chapman said:

"In all of 1967, Marine fighter/attack aviation flew 63,000 sorties in direct support of the III MAF ground forces and 10,000 in support of other Free World forces. This element of our air/ground team also flew 11,000 strike missions over North Vietnam. It expended a total of 134,000 tons of bombs, 166,000 rockets, and 2,100,000 rounds of 20-mm. ammunition.

"Four hundred ninety thousand helicopter sorties lifted 732,000 troops and performed other yeoman service in their support."

But Marine Corps accomplishments, General Chapman noted, were not without cost. Marine losses for 1967, he testified, were 3,452 killed and 25,994 wounded, compared to 17,876 enemy dead.

Other casualty reports indicate that of the 13,089 Marines wounded in 1967 requiring hospitalization, 12,436 were returned to duty. Total casualties for the Marine Corps, cumulative since the first Marine was wounded in 1962, had reached 5,479 dead and 37,784 wounded. In terms of casualties, this made Vietnam the Marine Corps' second most costly war, exceeded only by World War II, in which 19,733 Marines were killed and 67,207 wounded.

During the course of the year, General Lam's I Corps forces had killed over 8,000 of the enemy—including nearly 3,000 North Vietnamese soldiers in the DMZ area. This was a more than creditable performance, particularly since half of his battalions had been reassigned to protection of Revolutionary Development programs in accordance with the decisions reached by President Johnson and Premier Ky at the Manila Conference in October 1966.

Civic Progress

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In November 1966, all U. S. non-military agencies in South Vietnam supporting Revolutionary Development* had been placed under an Office of Civil Opera-

* Because of the continuing uncertainty and lack of precision in the use of the terms "pacification," "revolutionary development," and "nation-building," ComUSMACV, in co-ordination with the American Embassy in Saigon, in November 1967 developed and promulgated the following definitions:

Pacification is the military, political, economic, and social process of establishing or re-establishing local government responsive to and involving the participation of the people. It includes the provision of sustained, credible territorial security, the destruction of the enemy's underground government, the assertion or reassertion of political control and involvement of the people in government, and the initiation of economic and social activity capable of self-sustenance and expansion. The economic element of pacification includes the opening of roads and waterways and the maintenance of lines of communication important to economic and military activity.

Revolutionary Development, the leading edge of pacification, is the formalized Government of Vietnam program, under the sponsorship of the Ministry of Revolutionary Development, in specified hamlets generally within Revolutionary Development campaign areas. It includes the local security for those hamlets and the political, economic, and social activities at that level.

Nation building is the economic, political, and social activity having an impact nationwide and or in urban centers. It is related to pacification in that it builds on the results of pacification and contributes to the establishment of a viable economic and social community.

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tions headed by Deputy Ambassador William J. Porter. Four regional directors, one for each corps tactical zone, had been named. Assistant Deputy Ambassador Henry L. T. Koren, a career diplomat, had been assigned to I Corps.

In the spring of 1967 U. S. military and non-military support of Revolutionary Development was merged. On 11 May, Robert W. Komer, a presidential assistant, was named Deputy to ComUSMACV for Revolutionary Development, with the rank of ambassador. The new organization combined the old Office of Civil Operations with MACV's Revolutionary Development Support Directorate and was called Civil Operations and Revolutionary Development Support or CORDS. This was at the Saigon level.

At the level of the corps area, or region, there was to be a deputy to the field commander supported by a civilian and military staff element at the general staff level. Accordingly, on 7 June, Mr. Koren, the former Region I Director, was redesignated Deputy to CG, III MAF, for CORDS. Below him was designated one senior provincial advisor for each of the five provinces. The districts within the provinces, in turn, were given senior district advisors.

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The chief effect and purpose of this new organization was to bring together the U. S. civil and military efforts to support Revolutionary Development, which until then had been parallel but not necessarily coincident.

In mid-November 1967, General Westmoreland, visiting the United States, told the American public over television that with continued military success, U. S. forces could begin to shift the burden of combat to South Vietnamese forces in about two years, and that token U. S. withdrawals could then be made. Ambassador Komer, asked about this estimate on 21 November, said that the phase-out of U. S. support of the pacification effort was further away than a military phase-out.

In I Corps, 1967 had shown both successes and failures in pacification and Revolutionary Development.

North Vietnam's Defense Minister, General Vo Nguyen Giap, the almost legendary figure who is usually credited with masterminding the Viet Minh victory over the French in 1954, including the climactic battle of Dien Bien Phu, in September 1967 published a series of curiously revealing articles in Hanoi's armed forces newspaper, *Quang Doi Nhan Dan*.

In his over-all evaluation of the war since large scale U. S. intervention began in 1965, Giap said the United States had been forced into a stalemate which left President Johnson two alternatives: an invasion of the North or a continuance of present strategy with limited reinforcements. Giap argued that neither alternative offered success to the American cause. Invasion of "a member country of the Socialist camp" would enlarge the war and "the U. S. imperialists would meet with incalculable serious consequences." As for reinforcements, "Even if they increase their troops by another 50,000, 100,000 or more, they cannot extricate themselves from their comprehensive stalemate in the southern part of our country."

Giap, without directly acknowledging the presence of North Vietnamese troops in the northern provinces, stated that the purpose of the battles along the frontiers was to pull away American strength from the populated areas and thus frustrate efforts at pacification. According to Giap, the American effort had been dealt a strategic setback by the intensified attacks against the 3d Marine Division in Quang Tin and Thua Thien provinces. More and more American units had to be moved into the battle zone, drawing them away from the task of gaining control of the rural population.

"The Marines are being stretched as taut as a bowstring," wrote Giap.

Undeniably, the diversion of most of the Marine combat strength to the northern two provinces and its involvement in the battle of the DMZ did cause an attenuation of cherished Marine Corps pacification programs in the heavily populated coastal region. Vietnamese success at taking over some of these programs can only be rated as fair. An exceptionally experienced and mature Vietnamese officer, asked to evaluate ARVN participation in Revolutionary Development, with specific reference to the area south of Da Nang, said that central planning was uninformed and unrealistic, that there was too much turnover of personnel, and that the retraining of the ARVN for Revolutionary Development had been poor. Elaborating on the last point, he said that "security" for Revolutionary Development was translated by the ARVN into terms of strongpoints, foxholes, and ambushes.

The refugee population almost doubled in the course of the year. There had been an estimated 280,000 refugees in I Corps in January 1967. By December the number had grown to 530,000. Of these, about a quarter of a million were in refugee camps. The growth in refugee population was largely a result of the heavy fighting in three areas: south of the DMZ, southwest of Da Nang, and in southern Quang Ngai Province. It can be argued, with a fair degree of conviction, that the growth in numbers of refugees was not an entirely nega-

tive indicator; that these persons, uprooted by the war, chose to place themselves under the control of the South Vietnamese government, rather than withdraw to areas still under Viet Cong domination.

A more positive indicator of increasing government control was the successful conduct of the 1967 elections. There were four of these. In April elections were held for village officials. In I Corps, 82.3 per cent of those eligible to vote turned out. This was followed in May by hamlet elections. The voter turn-out was 78.8 per cent. On 3 September the presidential election in accordance with the new constitution took place. In I Corps, despite an intensive Viet Cong terror campaign to disrupt the election—involving 272 acts of violence in which 672 civilians were killed or kidnapped—86 per cent of the eligible voters cast their ballots. This election named Lieutenant General Nguyen Van Thieu president and Air Vice-Marshal Nguyen Cao Ky vice president. The 60-member senate was also filled. A fourth election was held on 22 October to fill the national assembly, the government's lower house. In this last election, voter participation was 77.9 per cent in I Corps.

There were other obvious signs of success. The civilian populace enjoyed much more freedom of movement. Highway One was open from the DMZ to the Binh Dinh border. Even the lateral roads moving westward from the coast could now be travelled in great part with relative safety.

Combined Action Program

One of the Marine Corps' most successful efforts in 1967 in support of Revolutionary Development was the continuance and expansion of the Combined Action Program. This program, which combined a Marine rifle squad and a Navy hospital corpsman with a Popular Force platoon to provide security at the hamlet and village level, had begun informally at Phu Bai in the summer of 1965. At the beginning of 1967 there were 57 combined action platoons; at the end of the year there were 79 platoons organized into 14 combined action companies which in turn were subordinate to one of three combined action group headquarters, located at Da Nang, Chu Lai, and Phu Bai.

As 1967 came to a close, 59 villages were being protected by combined action platoons. Their mission was to deny the assigned area to the enemy and to encourage civic action; the long-term objective was to develop self-sufficient local security forces. During the year, combined action platoons had conducted an average of over 4,000 ambushes and patrols monthly, killed 456 enemy, and captured 256.

The Outlook

There was reason for optimism as 1967 ended. The enemy had elected to make the northern provinces of I Corps Tactical Zone the main battle area and each time he had attempted to take the offensive he had been badly beaten. With the movement of U. S. Army troops into I Corps, an acceptable troop density had been achieved. Pacification efforts, slowed down by the Buddhist Revolt of 1966 and the overt entry of North Vietnamese forces across the DMZ, appeared to be regaining momentum. South Vietnam had shown technical competence in the conduct of a series of elections, which in turn had resulted in what promised to be a democratically-based government.

But not all was bright. A major invasion appeared to be in the making across the DMZ. And the year ended almost exactly as it had begun: in I Corps the 36-hour New Year's truce was marred by 16 major incidents.

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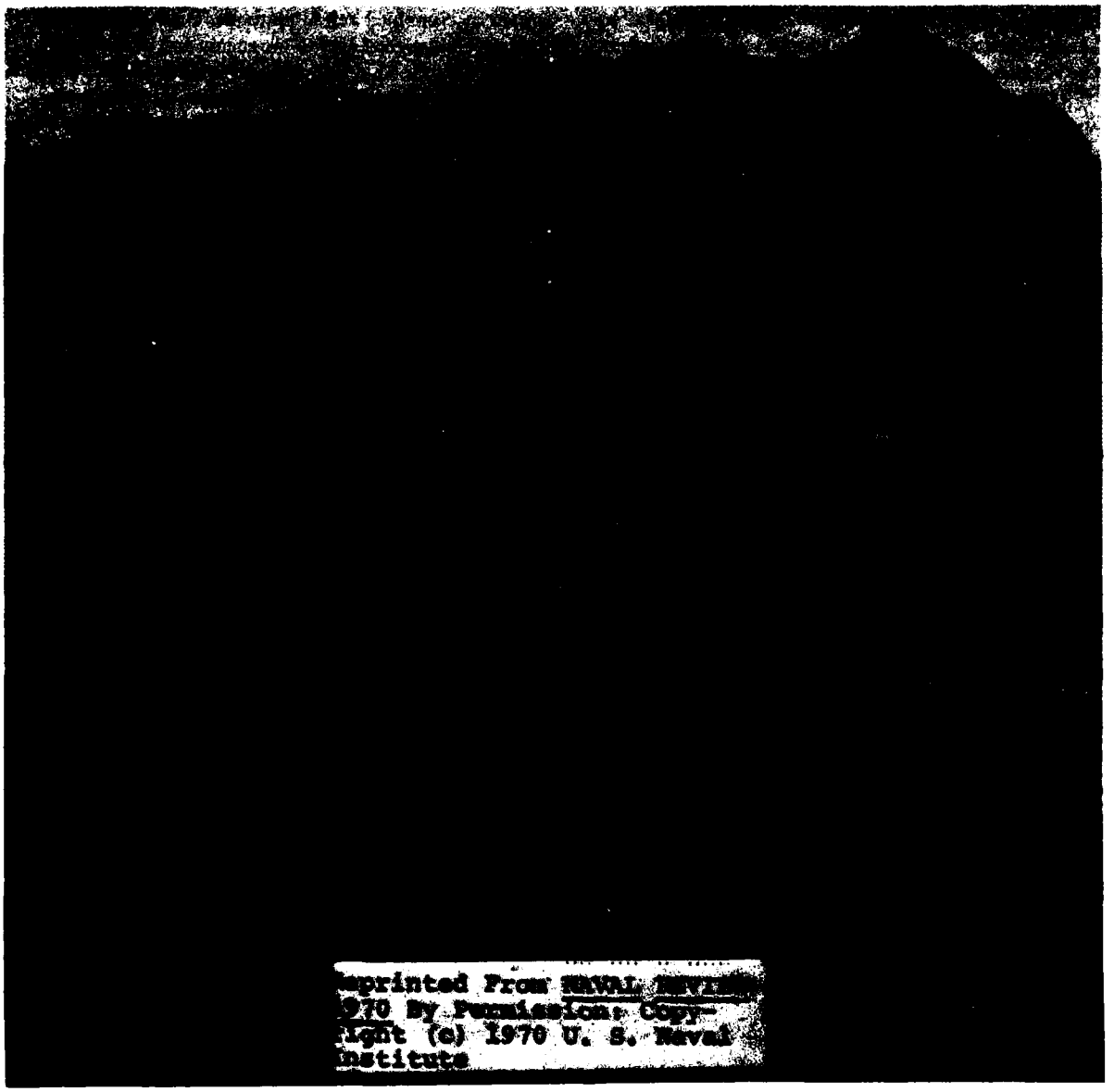
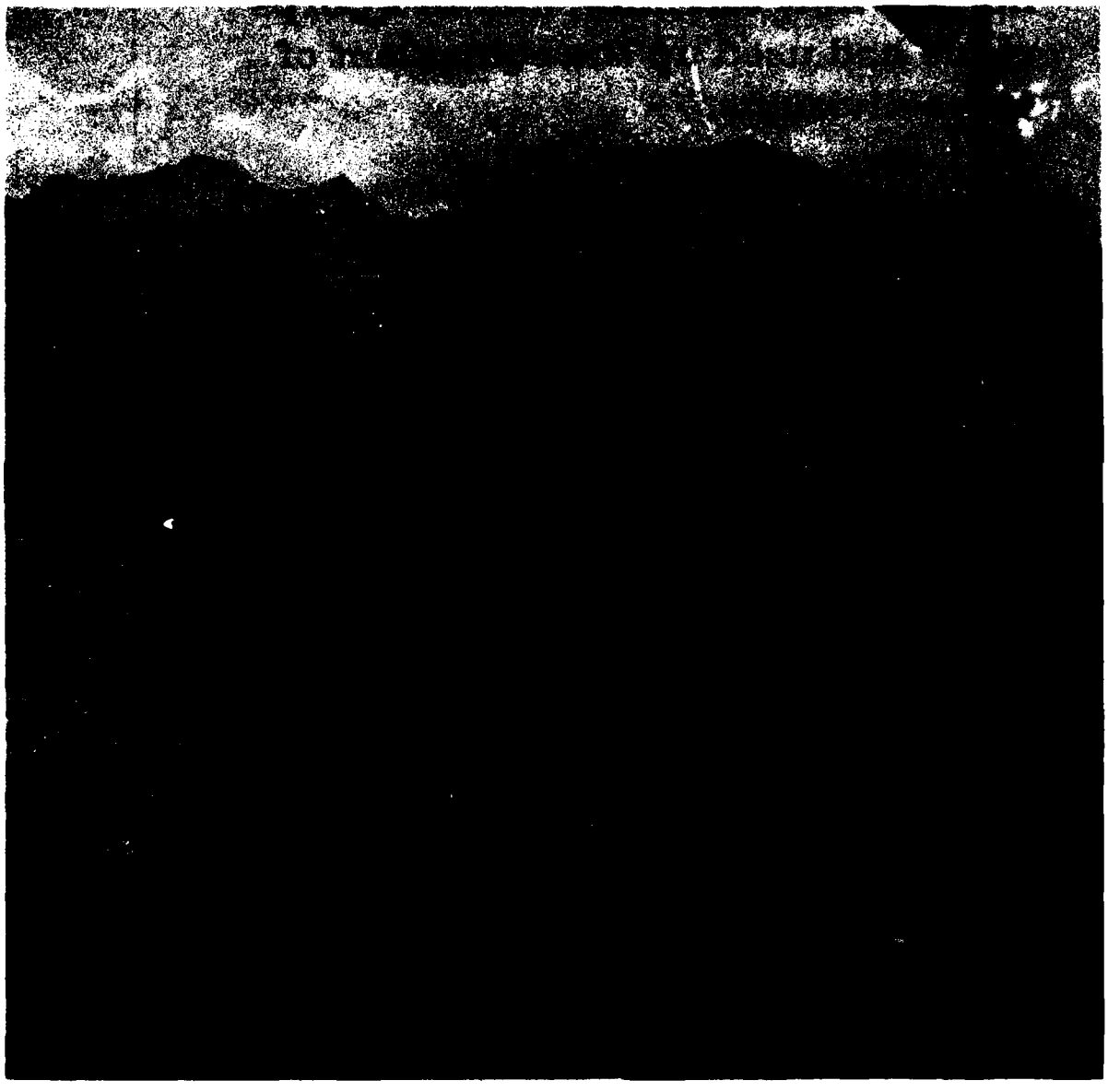
Marine Corps Operations in Vietnam, 1968

By Edwin H. Simmons, Brigadier General, U. S. Marine Corps





U. S. Marine helicopters swoop in to a dusty landing near the "Rock Pile" to embark troops for Operation Lancaster II on 17 June 1968.

"But by the middle of February, he was through. He had not gained the popular support he expected. The American presence was unshaken. The Vietnamese armed forces...had done surprisingly well...not a single ARVN unit defected. He had won no battlefield victories, held no new territory, and in I Corps alone had used up the equivalent of three divisions."

Third in a series of accounts, by General Simmons, of the Marine Corps in action in Vietnam, this article picks up the narrative from last year's *Naval Review* at Christmas 1967, when the threat of greatly expanded enemy offensives loomed ahead for the American field commanders. We begin with the clearing up of loose ends, and the new disposing of allied forces to meet enemy initiatives anticipated by intelligence reports.

General Simmons deals principally with events generated by the Tet offensive, and the consecutive weaker enemy offensives of the year. He recounts and evaluates the strong enemy strikes at Da Nang, Hue, and just south of the DMZ; and he discusses the other actions. He describes the allied response to the foe's offensives, and he examines allied command relations in I Corps Tactical Zone, where the Marines had two thirds of their infantry battalions, but where large ARVN, ROK, and U. S. Army units shared the fighting of a powerful concentration of enemy forces.

Perhaps more than anything else, the author, in recounting the actions that took place, projects simultaneously the sense of wave and wash in the war, and a grasp of the tactical situation in the roughest year of enemy action yet. In turn, this understanding may increase the reader's knowledge of the enemy's limited military alternatives which perforce established his patterns of action. One might collect from this account the idea that the adversary hoped that the proximity of his bases and sanctuaries would allow him to win in I Corps merely with the refinement of his tactics, as there were few alternative military strategies the enemy could select. For to have strong strategic military alternatives, one needs far greater strength and variety of force than the Communist opponent had at his disposal in 1968.

—Editor.

General Westmoreland calls 1968, "the year of decision." In his *Report on the War in Vietnam*, he writes, "As the new year opened, I had planned to continue to pursue the enemy throughout the Republic, thereby improving conditions for the pacification program to proceed at an ever-increasing pace . . . . In December of 1967, information of massive enemy troop movements had prompted me to cancel these plans . . . . As 1968 began, events verified this intelligence, as the enemy continued the forward movement of his main forces toward Saigon, Da Nang, Hue, Khe Sanh, the DMZ, and a number of provincial and district capitals. During January, we began to receive numerous reports about a major offensive to be undertaken just before or immediately after *Tet* . . . ."

The Situation Before Tet

In I Corps Tactical Zone (ICTZ), the year began with a shuffling of U. S. ground units. The plan, named "Operation Checkers," had for its main purpose the relief of 3rd Marine Division units from covering the western approaches to Hue. That division could then concentrate its full attention on the problem at hand in northernmost Quang Tri Province. To accomplish this the 1st and 5th Marine regiments were moved into Thua Thien Province under Task Force X-ray com-

manded by Brigadier General Foster C. Lahue. Before this move took place, other moves first had to be made in the very south of ICTZ.

On 19 December 1967, the 11th Infantry Brigade (Brigadier General Andy A. Lipscomb, USA) had arrived at Duc Pho, almost at the southern tip of Quang Ngai Province. This fresh American brigade made it possible for the Korean "Blue Dragon" Marine Brigade (Brigadier General Kim Yun Sang) to move north from Quang Ngai to the vicinity of Hoi An on 22 December. In turn, the 1st Marine Division (Major General Donn J. Robertson) could start sending battalions north. The 1st Battalion, 5th Marines (Lieutenant Colonel Oliver W. Vandenberg, Jr.) moved to the Phu Loc area above Hai Van pass the day after Christmas.

The prime reason for all this concern and movement were the two North Vietnamese Army (NVA) divisions operating along the DMZ: the 324B Division along the eastern half, and the 325C Division, hanging in at the northwestern corner of Quang Tri province, threatening Khe Sanh. To counter this threat, most of the 3d Marine Division was strung out in a series of combat bases and strong points along the general line of Route 9, tied in large part to the defense of the anti-infiltration barrier.

While "Checkers" was in progress, General Westmoreland, believing that the enemy's next major effort would be in the northern part of ICTZ, ordered the re-deployment of the 1st Air Cavalry Division and the 2d Brigade, 101st Airborne Division, to Quang Tri and Thua Thien provinces. The two Army divisions were to be under the operational control of the III Marine Amphibious Force, commanded by Lieutenant General Robert E. Cushman. The III MAF's area of operations would continue to be all of ICTZ, the northern five provinces of South Vietnam.

The U. S. Army was already liberally represented in I Corps with a total of about 32,000 men, including artillery units serving along the DMZ with the Marines, the majority of the advisory effort, and, largest of all, the Americal Division. Literally formed on the battlefield the previous summer, the Americal, or 23d Infantry Division, commanded by Major General Samuel W. Koster, USA, now had responsibility for all U. S. ground operations in Quang Tri and Quang Ngai, the southern two provinces in ICTZ. Already with the Americal Division was the 3d Brigade of the 1st Air Cavalry Division.

So when the Army reinforcements arrived there would be five American divisions in ICTZ—three Army divisions and the 1st and 3d Marine Divisions. When 1968 began, there were already some quarter-million Free World forces in I Corps with a cutting edge of 73 infantry battalions.

In terms of infantry battalions—that convenient, if inexact denominator of ground combat strength—21 of the Marine Corps' 36 battalions were in Vietnam. In air strength, the percentage of tactical units was almost equally high: 14 of our 33 fixed-wing squadrons and 13 of our 24 helicopter squadrons. In all, there was a total of 475 aircraft, over one-third of the Corps' inventory. A strength return for 1 January 1968 indicated that 81,249 of the Corps' 298,498 Marines were serving in Vietnam. Proportionally, no other U. S. service had anything approaching this investment in the war.

The U. S. Navy had over 22,000 men, two-thirds of its in-country strength, in ICTZ. Of these, about 500 officers and 3,000 bluejackets were included in III MAF, mostly doctors, chaplains, and hospital corpsmen. Nearly half the remainder were in the Naval Support Activity, Da Nang. Most of the rest were Seabees. The 30th Naval Construction Regiment was working five battalions in the Da Nang area and two at Chu Lai. The 32d Naval Construction Regiment had three battalions operating out of Phu Bai and one at Dong Ha.

The U. S. Air Force had over 7,000 men in ICTZ, mostly at the Da Nang air base.

The Republic of Korea's 3d Marine Brigade had four infantry battalions. Including supporting units, it totalled 6,000 men.

The Republic of Vietnam itself had nearly 81,000 men under arms in ICTZ. Led by the durable I Corps commander, Lieutenant General Hoang Xuan Lam, these included 31 battalions of regular Vietnamese Army troops (the "ARVN"), two airborne battalions from the General Reserve, 21,000 Regional Forces (the "RFs"), and 23,000 Popular Forces (the "PFs").

Enemy strength, including North Vietnamese regulars, Viet Cong main force, and hard-core guerrillas was thought to be from 75,000 to 90,000. Of this total, the guerrillas, in many ways more of a problem than the regulars, numbered about 20,000 for all of I Corps. In addition, the enemy was soon to demonstrate, once again, his capability of building up his strength rapidly from sanctuary bases just across the borders.

Situation Along the DMZ

By mid-January, the 304th Division had come across the border from Laos and had joined the 325C outside Khe Sanh. The 320th NVA Division next was identified, apparently poised for an attack against Camp Carroll. On 21 January, interrogation of a rallier from the 325C Division indicated that elements of the 308th and 341st NVA divisions were also south of the DMZ.

With Task Force X-Ray filling in behind him, Major General Tompkins on 10 January moved his headquar-

ters forward from Phu Bai to Dong Ha, now grown into a major base. The Division rear remained for the time at Phu Bai; later it would move forward to Quang Tri.

Route 9 stops at Dong Ha, where it intersects with Highway No. 1, but in prolongation of the same line is the Cua Viet River, flowing eastward to the South China Sea. Operation Napoleon, begun 5 November 1967, was being conducted here by the reinforced 1st Amphibian Tractor Battalion (Lieutenant Colonel Edward R. Toner) to give security to the Cua Viet River, by way of which the 3d Marine Division and Army units in Quang Tri province were now receiving the preponderance of their supplies and equipment from NavSuppAct Da Nang.

The Seventh Fleet's Special Landing Forces were also working in the northern provinces.

North of the Cua Viet estuary, Special Landing Force Bravo (Colonel Maynard W. Schmidt) on 2 January ended Operation Badger Tooth. Battalion Landing Team (BLT) 3/1 (Lieutenant Colonel Max McQuown), built around 3d Battalion, 1st Marines, and supported by HMM-262 (Lieutenant Colonel Melvin J. Steinberg), had gone ashore the day after Christmas. A month later, on the evening of 23 January, the battalion landed again farther south, this time lifted by HMM-165 (Lieutenant Colonel Richard E. Romine). Making a night crossing of the Cua Viet River in amphibian tractors, the main body of the battalion continued northward on the next day. A heavy fight that took place in the vicinity of My Loc confirmed our intelligence estimate that the enemy—identified as the 803d NVA Regiment—had established a line of fortified hamlets above the north bank of the Cua Viet from which to interdict traffic on the river. The operation (Badger Catch) as such, ended on 26 January. BLT 3/1 stayed ashore as part of Operation Saline in the same area.

Special Landing Force Alpha (Colonel Bruce F. Meyers) executed Operation Ballistic Armor on 22 January. This put BLT 2/4 (Lieutenant Colonal William Wise), lifted by HMM-361 (Lieutenant Colonel Daniel M. Wilson), in Thua Thien province close to Camp Evans, the base being upgraded for the impending arrival of the 1st Air Cavalry Division. The operation lasted until 26 January; contact was small. Next day, 27 January, the battalion redeployed to a position four miles north of Cam Lo on a one-day operation called Fortress Attack.

These were the first of the 13 Special Landing Force operations conducted in 1968.

The 1st Marines (Colonel Herbert E. Ing, Jr.), one of the regiments of the 1st Marine Division, had been moved north in October and placed under the operational control of the 3d Marine Division. With two battalions—1st Battalion, 1st Marines, and 1st Battalion, 3d Marines—it was engaged in Operation Osceola in Hai Lang Forest, west and south of Quang Tri city.

In 3d Marine Division usage, operation nicknames had come to be used as designators for tactical areas of responsibility. They continued for a considerable period of time and did not begin and end at the frenetic pace which had characterized the search-and-destroy operations carried out earlier in the war.

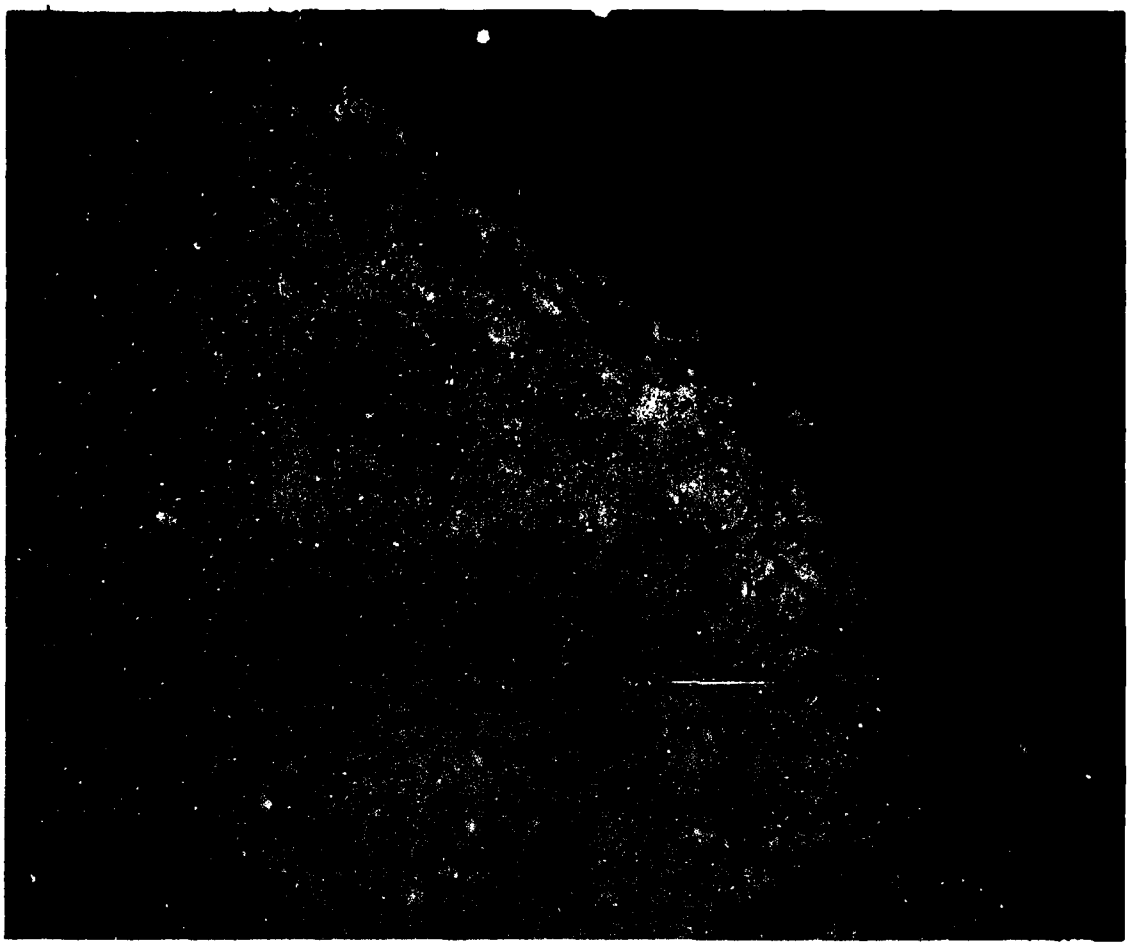
Farther north, just west of Highway No. 1, "Leatherneck Square," formed by Gio Linh, Con Thien, Dong Ha, and Cam Lo, generally defined the geographic limits of Operation Kentucky, begun 1 November 1967. Kentucky was the business of the 9th Marines (Colonel Richard B. Smith) with four battalions under the regiment's operational control.

West of Kentucky was Operation Lancaster, an area including Camp Carroll, the Rockpile, and Ca Lu, under 3d Marines (Colonel Joseph Loprete) with two battalions: the 2d and 3d Battalions, 9th Marines.

As explained in "Marine Corps Operations in Viet Nam, 1967" in *Naval Review, 1969*, Marine regiments were being used more and more like brigades, in that infantry battalions were moved in and out from under their operational control, both to meet the exigencies of the tactical situation and the demands of the schedule which rotated battalion landing teams out of the country for re-fitting at Okinawa and service with the Seventh Fleet as Special Landing Forces. This practice was more or less parallel to the practice of moving tactical squadrons back and forth among Marine aircraft groups. It demonstrated the interchangeable nature of Marine battalions and gave the division commanding generals great flexibility in shifting their combat strength. Most infantry regimental commanders, while recognizing the need for and advantages of this system, nevertheless preferred to have their own organic battalions. Command lines were much more clear-cut; the distinctions between operational control and administrative command were avoided. Tactical integrity was preserved and efficiency and effectiveness tended to be greater. One regimental commander estimated that it took about two weeks of working with a new battalion to iron out problems of procedures, and communications.

Defense of Khe Sanh

Khe Sanh had been relatively quiet since the heavy fighting of April and May of the previous year. The area was now the location of Operation Scotland, initially the concern of the 26th Marines (Colonel David

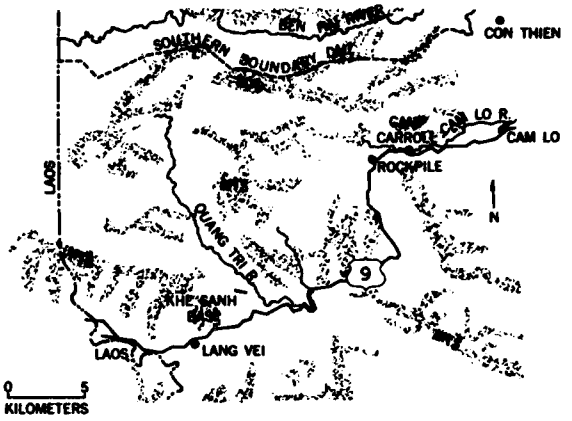


I Corps Tactical Zone—five provinces in the northern part of South Vietnam. The coastal area is mainly flat, the inland area mainly mountainous. The map shows where military action occurred in ICTZ, along with the principal arteries, routes 1, 4, and 9. The only operable part of the railroad is between Hue and Da Nang.

E. Lownds). This was a regiment belonging to the 5th Marine Division which had been moved to the Western Pacific in August 1966, and assigned to the 9th Marine Amphibious Brigade headquartered in Okinawa. The 26th Marines had been ashore in Vietnam and had been under the operational control of the 3d Marine Division since April 1967. On 1 December 1967, the regimental headquarters and 1st Battalion were at Khe Sanh, the 2d Battalion was at Camp Evans, and the 3d Battalion was at Phu Bai. Colonel Lownds had disposed the 1st Battalion (Lieutenant Colonel James B. Wilkinson) as follows: one company on Hill 881 south, one company on Hill 861, one platoon on Hill 950, and one company on the perimeter of the combat base itself. This left him a reserve or "interdiction force" of two platoons.

About 1400 on 13 December 1967 General Cushman called General Tompkins on a secure-voice circuit and said that, as he assessed the situation, there were four enemy regiments within 20 kilometers of Khe Sanh, and consequently, he thought another battalion should be added to its defense. At the moment, Tompkins thought the Camp Carroll area was more vulnerable than Khe Sanh—he had one battalion stretched from

Khe Sanh, in the mountains near both the DMZ and the Laotian border. Route 9 originates at Dong Ha, where Khe Sanh's logistic support came ashore from amphibious vessels sent from Da Nang. But during the siege the road was unusable, both because of the monsoon rains and because of hostile action. Hence Khe Sanh lived on a short-haul airlift.



Ca Lu to Cam Lo. Cushman appreciated Tompkins' concern but directed that another battalion be sent to Khe Sanh, suggesting the 3d Battalion, 26th Marines (Lieutenant Colonel Harry L. Alderman), which Tompkins had just moved forward from Camp Evans to Dong Ha. Five hours later, the battalion, less one company, had closed Khe Sanh. The remaining company plus a platoon of 155-mm. howitzers arrived the next afternoon.

Westmoreland has made the following evaluation of the importance of Khe Sanh:

"Were we to relinquish the Khe Sanh area, the North Vietnamese would have had an unobstructed invasion route into the two northernmost provinces from which they might outflank our positions south of the Demilitarized Zone—positions which were blocking North Vietnamese attacks from the north."

Critics of the decision to defend Khe Sanh presuppose that there was an acceptable alternative to defending Khe Sanh. The only alternative was to withdraw. But what kind of a withdrawal could have been executed? The men could have been evacuated by air, probably in neat fashion, with little or no loss. But what about the tons and tons of equipment and supplies? They would have had to go overland and Route No. 9 was closed and would not reopen until the monsoon season ended.

In the last analysis, Khe Sanh was defended because it was the only logical thing to do. We were there, in a prepared position and in considerable strength. A well-fought battle would do the enemy a lot more damage than he could hope to inflict on us.

Cushman proposed a battle plan for Khe Sanh which Westmoreland approved: essentially, it was to reinforce the garrison modestly and to depend upon our massive air and ground firepower to destroy the enemy, all with the realization that Khe Sanh would, logically, have to be supported from the air during a season when flying weather would be marginal at best.

Along the Coast

To the east, at Phu Bai on 13 January, Task Force X-Ray had been activated, as planned, and with the arrival of the 2d Battalion, 5th Marines (Lieutenant Colonel Ernest C. Cheatham, Jr.), on 15 January, assumed responsibility for the Phu Bai tactical area of responsibility (TAOR).

In this series of essays, Task Force Delta and Task Force X-Ray have appeared, disappeared, and reappeared. Later, mention will be made of Task Force Hotel. These designators are used when it is found wise to form a portion of a division into a provisional command larger than a reinforced regiment. Sometimes, a task force is activated to pursue a specific operation, as was the case with Task Force Delta in Operation Double Eagle, and sometimes to take care of a geographically separated area, as was the case when the 1st Marine Division moved forward to Da Nang, but left Task Force X-Ray behind at Chu Lai.

Relieved of the responsibility for the Phu Bai TAOR, Tompkins could send the 2d Battalion, 26th Marines (Lieutenant Colonel Francis J. Heath, Jr.), from Phu Bai to Khe Sanh. This move was completed on 16 January and made the 26th Marines something of a curiosity: a regiment with all three of its organic battalions.

On 20 January, a Marine company made contact with a North Vietnamese battalion entrenched between Hill 881 South and Hill 881 North, two miles northwest of Khe Sanh itself. The 3d Battalion, 26th Marines (Alderman), attacked, killing 103 of the enemy. The second battle of Khe Sanh had begun. Next day, 21 January, the enemy overran the village of Khe Sanh. Refugees came crowding into the perimeter. The outpost on Hill 861 and the base itself came under attack. The largest ammunition dump at Khe Sanh blew up under the mortar and artillery barrage.

Colonel Lownds asked for another battalion. General Tompkins told General Cushman that, unless otherwise directed, he intended to send his Division reserve, the 1st Battalion, 1st Marines, from Quang Tri to Khe Sanh. But this was one of the battalions scheduled to revert to Task Force X-Ray, so General Cushman directed Tompkins to send the 1st Battalion, 9th Marines (Lieutenant Colonel John F. Mitchell), a 3d Marine Division battalion, which was at Camp Evans. Mitchell's battalion arrived at Khe Sanh that same day, 21 January. Over one thousand civilian refugees were moved out by air.

On 26 January, General Lam agreed to send a Ranger Battalion to Khe Sanh and promised to send another one later if needed. The 37th Rangers, their on-board strength down to 318, came in on the 27th from Phu Loc. That same day, two more batteries of Marine 105mm. howitzers joined the garrison.

There were now five infantry battalions at Khe Sanh, supported by three batteries of 105mm. howitzers, a battery of 4.2-inch mortars, and a battery of 155mm. howitzers. Three batteries of 105s fell short of the rule-of-thumb ratio of one battery to each infantry battalion. More guns could have been moved into the perimeter, but this would have increased the congestion within the base. Further, it was foreseen that the controlling factor in d[illegible] support artillery would not be the number of tubes, but rather the number of artillery rounds that could be supplied by air.

Offsetting this slight deficiency in direct-support artillery were 18 long-range U. S. Army 175mm. guns within supporting range: 14 of them at Camp Carroll, and 4 at the Rockpile (Thon Son Lam).

Also at the Khe Sanh Combat Base (KSCB), there were six 90mm. gun tanks, ten ONTOS with their 106mm. recoilless rifles, two Army M-42s mounting dual 40mm. "dusters," and two Army M-55s with quad caliber .50s.

Army Reinforcements. Meanwhile, the promised U. S. Army reinforcements had begun to arrive in I Corps. The first element of the 1st Air Cavalry Division north of Hai Van Pass was the 1st Battalion, 5th Cavalry, which came into Phu Bai on 17 January. The 4th Marines (Colonel William L. Dick), who had been screening the western approaches to Hue, terminated Operation Neosha on 20 January. This turned out to be a bit premature; the operation was reopened as Neosha II and continued until 24 January to provide a little overlap for the arriving Air Cavalry. The 1st Air Cavalry began Operation Jeb Stuart on 22 January, fifteen miles west of Hue.

That same day, the first elements of the 2d Brigade, 101st Airborne Division (Colonel John H. Cushman, USA) began to arrive in Quang Tri. Osceola, the 1st Marines (Ing) operation west and south of Quang Tri was ended on 20 January. To give the airborne troopers a little time to get acclimated, Osceola II was begun, a one-battalion effort, and continued on through 16 February.

All of this tended to blur the original provisions of the "Checkers" plan which called for the exchange of the 1st Marine Regiment in Quang Tri province for the 4th Marine regiment in Thua Thien province. The two regimental headquarters were shifted more or less on schedule, but transfer of the battalions and some of the companies lagged. The upshot of it was that Task Force X-Ray, with the mission of protecting the base at Phu Bai, screening the western approaches to Hue, and keeping open Highway No. 1 from Hai Van Pass to Hue, found itself on the eve of Tet with two regimental headquarters (1st Marines and 5th Marines) and *three understrength battalions. Also at Phu Bai,* MAG-36 (Colonel Frank E. Wilson), having moved up from Chu Lai, was operating one light and four medium helicopter squadrons.

In Hue itself was the headquarters of the 1st ARVN Division (Brigadier General Ngo Quang Truong). Truong's tactical zone included both Quang Tri and Thua Thien provinces. Of his 12 organic infantry battalions, six were assigned Revolutionary Development missions, five were providing area defense; only one was available as a mobile reserve. His dispositions were generally along the axis of Highway No. 1 from Gio Linh south to Phu Bai. Temporarily in Hue were two airborne battalions from Saigon's general reserve.

As the month of January drew to a close, the Viet Cong announced a seven-day Tet truce to last from 0100, 27 January until 0100, 3 February. The Allied Tet cease-fire was to be only 36 hours, beginning at 1800 on the evening of 29 January.

Situation in Quang Nam. Most of the trouble for the Marines in Quang Nam province was concentrated in the triangle bounded by Da Nang to the north, Hoi An to the south, and An Hoa to the west. Endemic to the area were the phoenix-like Doc Lap Battalion and wraith-like sapper units who were indisputably the most

adroit and deadliest anti-personnel mine experts in the war. A further unpleasantness had been added by the arrival of the North Vietnamese 368B Artillery Regiment whose rockets and heavy mortars continued to plague Da Nang's densely packed installations.

The first of the 1968 rocket attacks had come on 2 January when Da Nang air base received about 30 rounds. An Air Force AC-47 "Spooky" on station saw the rockets being fired and took the firing position under attack with his mini-guns. Our patrols closed on the position, found three enemy dead and various odds and ends of 122 mm. rocketry.

Da Nang air base was still the headquarters of 1st Marine Aircraft Wing, now commanded by Major General Norman J. Anderson. Also on the field was MAG-11 (Colonel Arthur O. Schmagel), operating a composite reconnaissance squadron (RF-4Bs, EF-10Bs, and EA-6As), an all-weather fighter F-8E squadron, a fighter-attack F-4B squadron, and an all-weather attack A-6A squadron. Across the river, at Marble Mountain Air Facility, MAG-16 (Colonel E. O. Reed) had an observation squadron equipped with UH-1Es, three medium helicopter squadrons—two with CH-46As and one with UH-34Ds—and a heavy helicopter squadron with CH-53As.

Three kilometers west of Da Nang air base on Hill 327, the 1st Marine Division (Robertson) had its headquarters. Behind Hill 327, and along what had been Red Beach, stretched the supply and maintenance installations of the Force Logistics Command (Brigadier General Harry C. Olson). In all, there were about 35,000 Marines in Quang Nam province. But in infantry strength, the 1st Marine Division, less Task Force X-Ray, had only five battalions. The 7th Marines (Colonel Ross R. Miner) with its three organic battalions had the TAOR fanning out west and southwest of Da Nang. The 5th Marines (Colonel Robert D. Bohn), when it went north to Phu Bai to join Task Force X-Ray, left behind its 3d Battalion and 2d Battalion, 3d Marines, in the pie-shaped wedge south of Marble Mountain, bounded roughly by the sea and Highway No. 1.

The Korean Marine Blue Dragon Brigade was pursuing Operation Flying Dragon astride the Quang Nam/Quang Tin provincial boundary.

The 51st ARVN Regiment with its four battalions was continuing its long-time mission of supporting Revolutionary Development along the axis of Highway No. 1 south of Da Nang.

As Corps reserve, Lieutenant General Lam had his much-used 1st Ranger Group, one of its three battalions already committed to Khe Sanh.

Situations in Quang Tin and Quang Ngai. All Marine ground strength having moved to the northern three provinces, U. S. ground operations in the southern two provinces, Quang Tin and Quang Ngai, were now the business of the Americal Division.

West of Tam Ky, in the old, much fought over, Que Son Valley area, the big Wheeler/Wallawa operation, begun 11 November 1967, was being fought by the 196th Light Infantry Brigade (Colonel Louis Gelling, USA) and the 3d Brigade, 1st Air Cavalry Division (Colonel Hubert S. Campbell, Jr., USA). The enemy was principally the 2d NVA Division.

Farther south, a few miles northwest of Quang Ngai city, the 198th Light Infantry Brigade (Colonel James R. Waldie, USA), with two of its four battalions, was prosecuting Operation Muscatine, begun 19 December 1967.

Down in the lower tip of Quang Ngai province, west of Duc Pho, the newly arrived 11th Infantry Brigade (Lipscomb), with its three battalions, was going after the 2d and 22d Regiments of the 3d Viet Cong Division.

Two Marine fixed-wing aircraft groups continued to operate from the field at Chu Lai. MAG-12 (Colonel Dean Wilker) had three light attack squadrons flying the Douglas A4E and an all-weather medium attack squadron flying the Grumman A-6A. MAG-13 (Colonel Edward N. Lefaivre) had three fighter-attack squadrons equipped with the McDonnell F-4B. In all, there were about 6,000 Marines still at Chu Lai.

The 2d ARVN Division (Colonel Nguyen Van Toan), headquartered at Quang Ngai city, had four of its 12 battalions assigned to Revolutionary Development missions. Of Toan's remaining eight battalions, five were providing area defense, leaving three available as mobile reserve.

The rule-of-thumb, derived at the Manila Conference in October 1966, was that as many as half of the ARVN maneuver battalions would be retrained for Revolutionary Development; that is, pacification, duty. At the beginning of 1968, 14 of General Lam's 28 regular ARVN infantry battalions were dedicated to RD.

Tet Offensive

On 29 January, the MAG-11 area at Da Nang was hit by about 42 rounds of 122 mm. rockets. Across the river at Marble Mountain Air Facility, MAG-16 was mortared. With these rocket and mortar salvos, the enemy opened his Tet offensive in I Corps. There is evidence that the attacks of 29 January were premature; that the full coordinated weight of the offensive was to have fallen on the Allies on 30 January.

There was a second rocket and mortar attack on the 30th against Marble Mountain Air Facility. A section

of runway was briefly knocked out. Chu Lai was also hit; about 25 122 mm. rockets impacted there.

The main outlines of the enemy's battle plan were obvious:

The attacks by fire against U. S. air bases were to reduce our tactical mobility and our close air support capability by hitting at our helicopters and our fighter-attack aircraft. At the same time, the enemy also moved to cut our ground lines of communication. His own attack columns were in position; some had already infiltrated into their objective areas, their movement masked by the holiday traffic. The enemy had marked off all the provincial capitals for attack.

On 30 and 31 January, he moved against Tam Ky in Quang Tin province. The defenders, mostly ARVN, some U. S. Army, after a wild fight threw him out. In Quang Ngai city, the story was much the same.

At the other end of the Corps' tactical zone, two NVA battalions came at Quang Tri city from the northeast on 31 January. Elements of the 1st ARVN Division, with a big assist from the 1st Brigade, 1st Air Cavalry Division, had them out of the city by noon.

But the Communists were reserving their main effort for Hue and Da Nang.

Attack Against Da Nang

At Da Nang, the enemy had successfully moved a Trojan horse element into position outside the ARVN I Corps headquarters compound just east of the air base. In the early morning hours of 30 January, behind a screen of mortar shells and rockets hitting indiscriminately at U. S. and ARVN installations, he made his try at the Corps headquarters. The duty section with help from an adjacent Combined Action Platoon blunted the initial attack. Help came roaring up in the form of Vietnamese military police and Rangers, and U. S. Marine military police from the airfield. In a formless cops-and-robbers fight, the attackers were all killed or melted back into anonymity.

South and west of the city, units of the 2d NVA Division, set for a full-scale offensive against Da Nang, were themselves intercepted. Reconnaissance elements of the 1st Marine Division had picked up the movement of their columns as they debouched from the foothills west of An Hoa and brought them under air and artillery fire. Closer at hand, on the morning of 30 January, General Cushman himself, airborne in his command helicopter, spotted 200 enemy just across the river southeast of Da Nang air base. He radioed his sighting to Major General Robertson who, in turn, committed the 3d Battalion, 5th Marines (Lieutenant Colonel William K. Rockey). Rockey's battalion went to the rescue of two Regional Force companies heavily engaged near the Catholic hamlet of Thon Trung Luong. They were followed into action by the 2d Battalion, 3d Marines (Lieutenant Colonel Jack W. Davis).

Farther south, in Hoi An, the enemy made a temporary lodgement in Hoi An, but was held by the stubborn defense of an ARVN engineer battalion and ejected by a blistering counterattack by the 1st Battalion, 51st ARVN Regiment.

Fighting continued along the axis of Highway No. 1. The enemy effort trailed off and then came back strong on 5 February. He got back into Hoi An and was thrown out once again. The 51st ARVN Regiment command post and battalion compounds mid-way between Hoi An and Da Nang were also hit. By this time, the 196th Light Infantry Brigade (Gelling) had moved up from Quang Tin province and had come under operational control of the 1st Marine Division.

General Robertson summed it up in a congratulatory message sent to his Division on 10 February:

"Commencing 29 January 1968 enemy forces have made repeated attempts to occupy the city of Da Nang and to destroy or control installations in the Da Nang vital area. Employed in these attacks were the 2d NVA Division, the 402d Sapper Battalion, four independent infantry battalions, one artillery rocket regiment and local guerrilla forces.

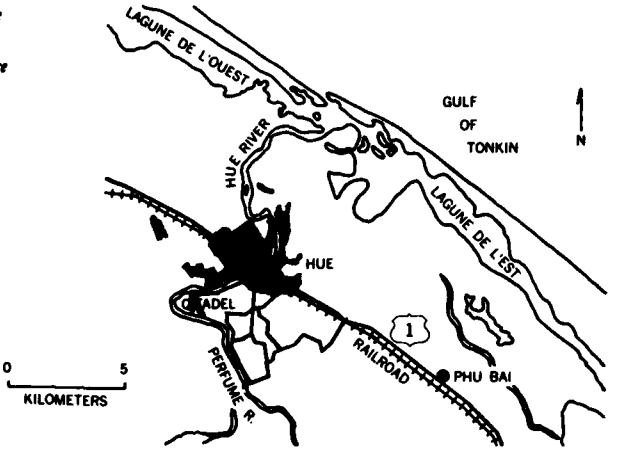
"I view with great pride the stalwart defense of the Da Nang area by all Division units and, in particular, the efforts of the 11th Marines; the 3d Battalion, 5th Marines; the 2d Battalion, 3d Marines; and the 196th Light Infantry Brigade, USA, which units bore the brunt of the enemy's main effort. . . . The enemy has been unable to occupy a single objective in the Da Nang area while he has suffered in excess of 1,100 casualties."

Battle For Hue

Always, Hue had some of the aspects of an open city in recognition of its place as the ancient imperial capital and cultural seat of Viet Nam. There was a considerable U. S. civilian presence and some military, principally related to the MACV advisory effort, but no U. S. garrison, no significant U. S. military installations as at Da Nang. Security within the city was largely a National Police responsibility. The 1st ARVN Division had its headquarters in a corner of the Citadel; there was also the Black Panther Company, an elite and much-used unit; but that was about the substance of the regular Vietnamese Army strength within the city. The 3d ARVN Regiment with three battalions was based five miles northwest of Hue. A fourth ARVN battalion was operating some miles southwest of the city.

The enemy must be given high marks for his infiltration into the city and for the surprise he subsequently achieved. Some of the infiltrators literally waited, in

The Imperial City of Hue, untouched through years of war, became the most dramatic victim of the Communist Tet Offensive early in 1968. Marines were called in to help ARVN forces in the recapture of the once beautiful city. The Hue and Perfume rivers are one and the same stream. It was up this narrow waterway that much logistic support came despite determined hostile efforts to interdict it.



civilian clothes, in Hue's tea rooms and bars until midnight when they changed into their uniforms. When the enemy signalled his occupation of Hue on 31 January with a mortar and rocket barrage, he had virtual control of the city. He had all of the Citadel with the exception of the 1st ARVN Division headquarters. South of the Perfume River, he had the province headquarters, the public utilities, the jail, the hospital, the University; almost everything of consequence, except the MACV compound and some isolated pockets of U. S. and South Vietnamese resistance.

Early that first morning, 31 January, Company A, 1st Battalion, 1st Marines, was dispatched from Phu Bai by truck with orders to reinforce the MACV compound. Following in trace was the command group of the 1st Battalion, 1st Marines (Lieutenant Colonel Marcus J. Gravel) with Company G, 2d Battalion, 5th Marines. They were joined on the road, providentially, by a tank platoon. The bob-tailed battalion fought its way through scattered resistance, got to the MACV compound about 1445. They were now ordered to cross the Perfume River with the objective of watching the 1st ARVN Division command post. With the help of the tanks, they got across the bridge but at great cost. They could not breach the Citadel wall, so, as darkness closed on them, they withdrew back across the river to the MACV compound.

Companies F and H, 2d Battalion, 5th Marines joined them on the 1st and 2d of February from Phu Bai. At first the Marine role was defensive; there was great reluctance to use U. S. troops in the counter-attack, a point of honor on the part of the ARVN and also recognition that Marine firepower could do irreparable damage to the city and that there also would be unavoidable civilian casualties. Then Lieutenant General Lam, I Corps commander, hard pressed north of the river, asked the Marines to clear that part of Hue south of the river. The Marines, attacking westward from the MACV compound and moving parallel to the river, went systematically to work.

By 4 February, the counterattack was under regimental control of the 1st Marines (Colonel Stanley S. Hughes). The command group of the 2d Battalion, 5th Marines (Cheatham) had arrived as had Company B, 1st Marines. The companies were sorted out and the two reduced battalions went forward, Gravel with two companies, Cheatham with three.

It was a house-to-house business, with all odds against the attacker. To minimize damage and civilian casualties, fire support was largely limited to direct fire weapons: rocket launchers, recoilless rifles, and tank guns. Use was also made of CS tear gas. By 6 February, the Marines had retaken the province headquarters, the jail and the hospital. Last organized resistance south of the river was extinguished on 9 February. The count of enemy dead had reached 1,053, and it was estimated that two enemy battalions had been destroyed.

North of the river, the 3d ARVN Regiment reinforced with three airborne battalions from the strategic reserve, attacking from the northeastern corner of the rectangular old city towards the south west corner, was making slow, steady progress. The Marines were now asked to cross the river and help in the final assault.

On 12 February, 1st Battalion, 5th Marines (Lieutenant Colonel Robert H. Thompson) joined the attacking ARVN, moving into the city from the north by helicopter and landing craft. The Marines went in on the left flank; the 3d ARVN Regiment was in the center; and the Vietnamese Marines, who had replaced the airborne battalions, were on the right flank. The attack ground inexorably forward. On 22 February, the Marines seized their final objective, the southeast wall of the Citadel. By prior agreement, the Marines stayed out of the fight for the Imperial Palace. At dawn on the

24th, the Vietnamese flag went up over the Citadel; and that afternoon, the Black Panther Company went into the now deserted Imperial Palace. Mopping up of the NVA remnants went on from 25 February until 2 March when the battle was declared over.

The North Vietnamese had committed at least eight battalions, perhaps eleven, to the battle. Command of this division-size attack had been given to the 6th NVA Regiment. Against them, three under strength U. S. Marines battalions and thirteen Vietnamese battalions were eventually used. West of Hue, five U. S. Army battalions had operated to cut the enemy's lines of supply and withdrawal. Throughout the battle the weather had been vile and the use of tactical air greatly limited. General Cushman has estimated that with a break in the weather the battle could have been fought and won in half the time. It is also quite likely that the North Vietnamese took this into consideration. The rain-laden clouds of the northeast monsoon strike the barrier of the Hai Van mountains and curl back, making the Hue area one of the wettest spots in Viet Nam.

February at Khe Sanh

At Khe Sanh, the Marines were told by General Tompkins (who was an almost daily visitor) to dig in and to confine their patrolling to local security. He set an arbitrary limit of 400 meters for patrols and constantly belabored Colonel Lownds with the admonition that "there is no such thing as too much wire or a position that is strong enough."

Not all the defenders were on or within the Khe Sanh perimeter itself. The chain of hills to the north was extensively organized. Two companies less a platoon of 3d Battalion, 26th Marines (Alderman) were on Hill 881 South. Company K of the 3d Battalion plus two platoons was on Hill 861. Hill 861A had Company E of the 2d Battalion. The rest of the 2d Battalion (Heath) was on Hill 558. Hill 950 had a reinforced platoon from the 1st Battalion, 26th Marines (Wilkinson). With the exception of this detachment, the 1st Battalion reinforced with Company L, 3d Battalion, was on the perimeter around the airstrip along with the 37th Rangers. The 1st Battalion, 9th Marines (Mitchell) was on the hill just west of the base where the rock quarry was located.

Tactical air support flown by marine, Air Force, and Navy, made an immediate ring around Khe Sanh. Farther out, B-52s were used. Westmoreland personally decided where the B-52s would strike.

During the early morning hours of 5 February, sensor devices warned the Marines on Hill 881 South that the enemy was trying to get within assaulting distance. Air and artillery struck the enemy with devastating effect. Another prong of the attack, an NVA battalion, tried to assault the west slope at Hill 861A. Company E, 2d Battalion, 26th Marines threw back the attack; 109 enemy dead were left hanging on the barbed wire.

On 6 February, there was an artillery and mortar attack against Khe Sanh and the Special Forces camp at Lang Vei, six miles southwest of the air strip. During the night, some or all of the 66th NVA Regiment, 304th Division, accompanied by flame throwers and nine Russian-made PT-76 amphibian tanks, assaulted and took Lang Vei. Of the 20 U. S. Special Force Green Berets at the camp, 14 were rescued by Marine helicopters and were safe within Khe Sanh's perimeter by nightfall, along with 70 to 100 of the Montagnard CIDGs. U. S. air and Marine artillery pounded the abandoned base. At lease three of the PT-76s were destroyed.

The enemy's siege tactics against Khe Sanh were classic: trenches, zig-zags, and parallels, some indications of mining and tunneling.

On February, again behind a rocket and mortar preparation, an NVA battalion hit the southwest edge of the defenses, penetrated the position of Company A, 1st Battalion, 9th Marines. A counterattack drove him out. After that, ground contact became more sporadic, limited to light enemy probes. Shelling reached a peak on 23 February when a counted 1,307 mortar and artillery rounds impacted on Khe Sanh.

More Reinforcements, New Commands. General Westmoreland had asked for additional troops from the States while the full shape of the Tet offensive was still unresolved and the threat against Khe Sanh was still building. He also established a MACV Forward command post at Phu Bai on 9 February, and positioned his Deputy, General Creighton W. Abrams, Jr., USA, there.

This move was taken by some as evidence that General Westmoreland had taken the conduct of the battle in the northern two provinces out of the operational hands of Commanding General, III Marine Amphibious Force. Such was not the case. MACV Forward functioned the same as any forward command post—no different, for example, than an advance command post sent forward by landing force headquarters in an amphibious operation. General Abrams, the rugged, 53-year-old former Vice Chief of Staff, U. S. Army, was scrupulous in refraining from giving orders directly to any unit, Army or Marine, under General Cushman's command.

The requested reinforcements, the U. S. Marine Corps' Regimental Landing Team (RLT) 27 and the 3d Brigade of the 82d Airborne Division, now began to come into the country. President Johnson had given them a personal send-off.

RLT-27's deployment was planned as temporary, hopefully not to remain in country more than three

or four months. The reinforced landing team, essentially half of the uncommitted remainder of the 5th Marine Division, was formed around an infantry regiment and an artillery battalion: the 27th Marines (Colonel Adolph G. Schwenk) and the 2d Battalion, 13th Marines (Lieutenant Colonel Rhys J. Phillips, Jr.). They began loading exactly 48 hours after notification by Headquarters, U. S. Marine Corps, that they would be moving. In that time, in order to meet deployment criteria they transferred out 1,400 men and brought in 1,900. Except for his executive officer who was an old hand with the regiment, Colonel Schwenk literally met his staff on the aircraft.

The first unit to arrive in Da Nang by air was the 2d Battalion, 27th Marines (Lieutenant Colonel Louis J. Bacher), from Camp Pendleton on 17 February. Next to come, also by air and from Camp Pendleton, was 3d Battalion, 27th Marines (Lieutenant Colonel Tullis J. Woodham, Jr.) on 20 February.

The 27th Marines were given the old but still troublesome coastal sector south of Marble Mountain and north of Hoi An. They moved into the area immediately and began working with the half of the 5th Marines (Bohn) that was operating there. In a week they took over responsibility for the TAOR.

Service support troops, formed up into a provisional battalion, arrived from Okinawa on 26 February. The remaining battalion landing team, built around 1st Battalion, 27th Marines (Lieutenant Colonel John E. Greenwood)—which Schwenk had never seen—was part of the Hawaii-based 1st Marine Brigade and had been at sea on an amphibious exercise when the order to proceed to Vietnam was received. It arrived in Da Nang on 28 February.

The 5th marines could now concentrate on operations from Hai Van pass north to Phu Bai. Both the Tet offensive and the monsoon had taken a toll of Highway One. The new operation, Houston, was begun on 26 February with 2d Battalion, 3d Marines (Davis) and 3d Battalion, 5th Marines (Rockey).

Meanwhile, on 19 February, HQ, 101st Airborne Division (Major General Olinto M. Barsanti, USA) with its 1st Brigade (Colonel John W. Collins, USA) had arrived at Phu Bai. Two days later, 3d Brigade, 82d Airborne Division (Colonel Alex M. Bolling, Jr., USA) began coming into Chu Lai and was shuttled north to Phu Bai where it joined the 101st, giving that Division three brigades.

Tet Assessment

The enemy's ambitions for the Tet offensive had been large. He had told his troops and his political cadre that the time had come for a general offensive and a popular uprising. In Hue, he had announced the formation of a Revolutionary Government and a New Alliance for National Democratic and Peace Forces. There is evidence that he seriously expected to split off the northern two provinces with his six-division effort.

He did achieve considerable surprise. He did tear up lines of communication and cause widespread destruction and temporary chaos in the populated areas. But by the middle of February, he was through. He had not gained the popular support he expected. The American presence was unshaken. The Vietnamese armed forces, initially caught off guard, had done surprisingly well. Contrary to his expectations, not a single ARVN unit defected. He had won no battlefield victories, held no new territory, and in I Corps alone had used up the equivalent of three divisions.

By the end of February, there were 52 American infantry battalions—over half of all the U. S. infantry battalions in country—operating in I Corps Tactical Zone: 24 U. S. Marine and 28 U. S. Army. General Cushman was commanding the equivalent of a field army. With the possible exception of Lieutenant General Roy S. Geiger's brief command of the Tenth Army during the closing days of the Okinawa campaign, it was the largest combat command ever held by a Marine. Five widely separated American divisions were too many to be controlled from a single tactical headquarters so on 10 March the Provisional Corps, Vietnam (PCV or ProvCorpsV) was activated. Lieutenant General William B. Rosson, earlier the MACV Chief of Staff and more recently Commanding General of the First Field Force Vietnam in II CTZ, was named Corps commander. Marine Major General Raymond G. Davis, Georgia-born Medal of Honor winner in Korea, was designated his deputy. ProvCorpsV was given operational control of the 1st Air Cavalry Division, the 101st Airborne Division, and the 3d Marine Division plus corps troops. ProvCorpsV, in turn, came under the operational control of III MAF. Concurrently with the formation of ProvCorpsV, MACV Forward was dissolved and General Abrams returned to Saigon.

Formation of MACV Forward and later of ProvCorpsV struck some members of the press as being a manifestation of Army dissatisfaction with Marine Corps generalship. Old debates, dating back to France in World War I, Saipan and Okinawa in World War II, and X Corps in Korea were exhumed. Disclaimers by both Army and Marine Corps spokesmen did not completely still the clamor.

Single Manager for Tactical Air

On 10 March ComUSMACV assigned 1st Marine Aircraft Wing's fixed-wing strike aircraft to the "mis-

sion direction" of Commanding General, 7th Air Force. General Westmoreland says the shift of control was made to alleviate the problem of "progressively complicated coordination of this indispensable air support provided by U. S. Air Force, U. S. Marine Corps, U. S. Navy, and Vietnamese Air Force tactical aircraft in addition to the B-52s one of the 3d Air Division in the Strategic Air Command."

The "single manager" concept for tactical air had been approved by CinCPac on 8 March. General Westmoreland's stated objective was to combine into a single system "the best features of both the Air Force and Marine tactical air support systems . . . "

By the time 7th Air Force control actually got underway, 1 April, the Tet offensive was over, the battle for Hue was fought and won, and the siege of Khe Sanh had just about petered out.

Relief of Khe Sanh

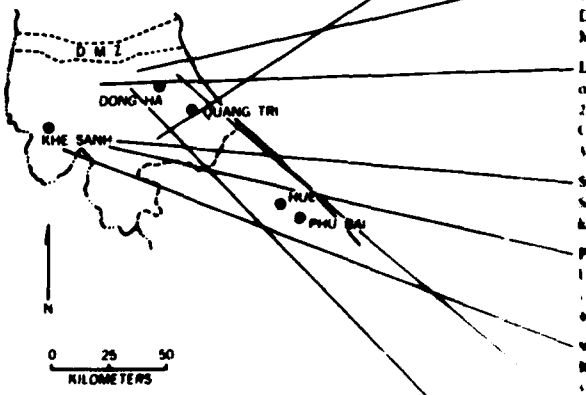
Meanwhile, round-the-clock bombing, well-named Operation Niagara, continued to interdict the enemy's approaches to Khe Sanh. By now, the verdant green hillsides, once the site of the best coffee plantations in Indo-China, had been pounded into a red-orange moonscape as unprecedented tonnages of aerial ordnance were delivered.

Meanwhile, the choppers and C-123s and C-130s continued to do their job of keeping the base supplied and getting the wounded out. The NVA, in turn, pushed his trenches further forward; did what he could to cut the aerial supply line; hammered away at the base with his mortars and artillery, getting back ten shells for every one he threw in; and occasionally risked infantry action. The Marines at Khe Sanh, chafing at restrictions placed on their own ground counteractions, patrolled out to prescribed limits, occasionally brushed with the NVA, and found considerable grisly evidence of the death and destruction being worked upon the enemy.

On 7 March, a C-123K Provider, making its approach to Khe Sanh from the east, was hit by NVA ground fire a few miles out and went down. All were killed: 43 Marines, a sailor, and the four Air Force crew members.

The enemy's most serious attack of the month came on 18 March. He tried to breach the portion of the

III MARINE AMPHIBIOUS FORCE MAJOR OPERATIONS, 1968: QUANG TRI PROVINCE



OSCEOLA (20 Oct 67–20 Jan 68). 1st Marines' operation west of Quang Tri City. 76 enemy killed at cost of 17 Marines dead, 162 wounded. OSCEOLA II (21 Jan–16 Feb 68). Continuation of OSCEOLA by 4th Marines. 24 enemy killed. Marine losses: two killed, 26 wounded.

KENTUCKY (1 Nov 67–Continuing). 9th Marines' operation in vicinity of "Leatherneck Square" formed by Gio Linh, Con Thien, Dong Ha, and Cam Lo. At year's end, enemy dead stood at 3,839. Marine losses at 502 killed, 2,331 wounded.

LANCASTER (1 Nov 67–20 Jan 68). 3d Marines' operation in vicinity of Camp Carroll, the Rockpile, and Ca Lu. 46 enemy killed at cost of 27 Marine dead, 106 wounded. LANCASTER II (21 Jan–25 Nov 68). Continuation of LANCASTER. Enemy lost 1,801 dead. Marine losses 359 dead, 1,715 wounded.

SCOTLAND (1 Nov 67–31 Mar 68). 26th Marines' operations in Khe Sanh area. Enemy lost 1,641 in counted dead. Marine casualties: 204 killed, 1,622 wounded.

PEGASUS (31 Mar–15 Apr 68). Relief of Khe Sanh by combined U. S. Army, U. S. Marine, and ARVN force. Enemy losses put at 1,044 dead. U. S. casualties: 92 killed, 667 wounded. ARVN losses: 60 killed, 208 wounded.

SCOTLAND II (15 Apr–Continuing). Task Force Hotel operation at Khe Sanh subsequent to PEGASUS. By year's end, enemy had lost [illegible] dead. Marine casualties: 484 killed, 1,918 wounded.

NAPOLEON SALINE (5 Nov 67–9 Dec 68). NAPOLEON, begun [illegible] Nov 67, and SALINE, begun 30 Jan 68, were combined on 29 Feb. Operation began by 1st Amtrac Bn and continued by various Marine and U. S. Army infantry units was to provide security for Cua Viet river. Altogether, 1,995 enemy were killed at a cost of 395 Americans dead, 1,680 wounded.

DAWSON RIVER (28 Nov–Continuing). 9th Marines. At year's end, the operation had killed 60 enemy. Marine losses stood at three killed and 90 wounded.

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perimeter held by the 37th ARVN Rangers and lost. Early on the morning of 30 March, Company B, 1st Battalion, 26th Marines assaulted an NVA battalion entrenched a mile south of the base. On that same day, Operation Scotland was declared over.

Operation Pegasus

With the end of the monsoon in sight, Cushman had proposed a three-phase Spring counteroffensive to begin in April and to include the relief of Khe Sanh, an attack into the DMZ, and a raid into the A Shau valley. Westmoreland approved the plan.

Accordingly, 1st Air Cav's first major operation in I Corps, Jeb Stuart, was brought to a close on 31 March to free the 1st Air Cavalry Division (Major General John H. Tolson, III, USA) for the relief of Khe Sanh.

Operation Pegasus was launched on 1 April. The ARVN portion of the operation was called Lam Son 207; the ARVN had long since given up trying to give each operation a gutsy, evocative nickname. 1st Air Cavalry Division, with an ARVN airborne battalion moving with them, was to leap-frog into successive positions east and then south of Khe Sanh. Less dramatically, the 1st Marine Regiment (Hughes) and three ARVN battalions were to move overland westward from Ca Lu to open up Route 9 itself.

On the first day out, 1st Marines, moving against very little resistance, got to their objective west of Ca Lu; and 3d Brigade, 1st Air Cavalry (Campbell) established a fire support base five miles east of Khe Sanh.

On 4 April, 26th Marines attacked southeast from Khe Sanh itself. First link-up between the Marines and cavalrymen came on 6 April when 1st Battalion, 9th Marines (Mitchell) met the approaching 1st Air Cav troopers. Later that same day, 1st Air Cav and ARVN airborne elements reached Khe Sanh. On 9 April, for the first time in 45 days, no shells fell on the base; and U. S. forces went back into Lang Vei Special Forces camp, meeting virtually no resistance. By 12 April, Route 9 was open to truck traffic.

Two days later, on 14 April, 3d Battalion, 26th Marines (Lieutenant Colonel John C. Studt) took Hill 881 North. Operation Pegasus was now declared over.

The battle for Khe Sanh had been fought according to plan: the Marines had buttoned up their defenses; the enemy had been engaged with massive firepower, air and artillery; the defenders had been adequately re-supplied by air; land communications were restored with the return of good weather.

Writes General Westmoreland: "The key to our success at Khe Sanh was firepower, principally aerial firepower. For 77 days, Air Force, Navy, and Marine aircraft provided round-the-clock, close-in support to the defending garrison and were controlled by airborne Forward Air Controllers or ground-based radar. Between 22 January and 31 March, tactical aircraft flew an average of 300 sorties daily, close to one every five minutes, and expended 35,000 tons of bombs and rockets."

During the same period, Strategic Air Command's B-52s had flown 2,602 sorties and dropped over 75,000 tons of bombs. Marine howitzers at Khe Sanh and Army 175s supporting from Camp Carroll and the Rockpile had fired over 100,000 rounds, nearly 1,500 shells a day.

Between 21 January and 8 April, 14,000 or more tons of supplies were delivered by Marine and Air Force air to Khe Sanh. Sixty-five percent of the deliveries were by parachute drop from C-130s and C-123s. In all, there were some 679 drops. During the same period, 455 aircraft landed at Khe Sanh. Television may have given the American public the impression that anything attempting to land at Khe Sanh was shot down. Actually only four fixed-wing aircraft—a C-130, a C-123, an A-4, and an F-4—appear to have been destroyed by enemy action.

Perhaps a tougher problem in aerial logistics than the air drops on KSCB (the main drop zone was between the perimeter and the rock quarry) was the re-supply of the two Marine battalions occupying the hills to the north. This was done by Marine helicopters flying in "gaggles" averaging seven aircraft and coming straight from Dong Ha to each of the hill positions. Coming down on these minuscule landing zones was like placing the chopper on the center of a bull's eye and was only feasible because of the covering close air support provided by Marine fixed-wing aircraft using smoke, napalm, and bombs. Exact helicopter losses are elusive but it appears that at least 17 choppers were destroyed or received "strike damage" and that perhaps twice this number received some degree of battle damage.

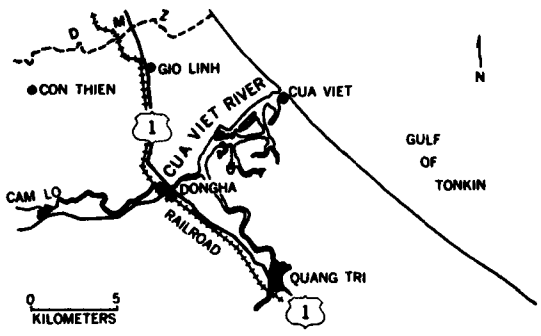
In any case, there was never a serious supply shortage. General Westmoreland rightly called the logistic air effort the "premier air logistical feat of the war."

In no way was Khe Sanh another Dien Bien Phu. The Marines had never thought that it would be.

Raid into A Shau Valley

With the relief of Khe Sanh accomplished, III MAF could turn its attention to the next phase of Cushman's spring counteroffensive: a raid into the A Shau valley, held strongly by the enemy since the fall of the Special Forces camp there in March 1966.

Operation Delaware Valley was to be a spoiling attack by the 1st Air Cavalry (Tolson) and 101st Airborne Divisions (Barsanti) with the mission of finding and destroying the NVA/VC logistic bases from which



The eastern half of the fighting zone below the DMZ, showing the essential river system by which support reached the Marines. In turn, the latter provided a screen north of the river which hostile elements had to penetrate in order to attack river traffic. The anti-infiltration barrier system, also known as the MacNamara Wall, was an essentially ineffective part of this screen.

operations against Hue and the coastal area were being supported. The coordinated ARVN portion of the attack was Lam Son 216.

Major General Davis, the Marine deputy commander of ProvCorpsV had been very favorably impressed by the airmobile portion of Pegasus. To study Army techniques closer at hand, he had himself attached to the 1st Air Cavalry for the A Shau operation. he would find much to admire.

There were two prongs to the initial entry. On 19 April, the 1st Air Cavalry with five battalions and the 3d ARVN Regiment with three battalions made an airmobile assault into the valley. On the same day, 101st Airborne Division with three battalions and an ARVN Airborne Task Force of three battalions started westward along Route 547, axis of Operation Cumberland the previous year. Landing against well-prepared anti-helicopter defenses, the Army on that first day suffered a number of helos destroyed and damaged.

On 22 April, 196th Light Infantry Brigade (Gelling) moved up from the Americal Division to Camp Evans to take over rear area security and to act as a reserve. On 1 May, the air strip at A Luoi, another abandoned Special Forces camp, was re-opened to take C-123 Providers supporting the operation. On 12 May, the ARVN Airborne task force chopped out of Lam Son 216.

On 16 May, the operation was declared over. Ground action had been formless, many small actions, no major clashes. Added up, there were 735 enemy dead. More important were his materiel losses, the largest yet inflicted upon him in I Corps Tactical Zone. He lost 2500 individual weapons, 93 crew-served weapons, and heavier stuff including a number of artillery pieces ranging from a dozen 37m AA guns to several 75mm and 122mm howitzers and nearly a hundred trucks.

Coincident with Operation Delaware Valley, the remainder of the 101st Airborne Division was conducting Carentan II northwest of Hue. Begun 1 April, it lasted until 16 May.

Battle for Dong Ha

The third phase of III MAF's spring counteroffensive—a cleansing attack into the DMZ—was pre-empted by an enemy thrust in strength against Dong Ha. By late April it was obvious that Hanoi had committed the 320th NVA Division to a serious effort to take the 3d Marine Division command post and major combat base. On 29 April elements of the 2d ARVN Regiment engaged an NVA regiment four miles north of the base. General Tompkins dispatched his Division reserve, Task Force Robbie, to help out. This action set off a six-day fight centered on Dai Do hamlet, a mile and a half northeast of Dong Ha. The Communist main body was met there by 2d Battalion, 4th Marines (Lieutenant Colonel William Weise). After three days hard fighting, Weise's battalion (he was among those wounded) was relieved by 1st Battalion, 3d Marines (Lieutenant Colonel Charles V. Jarman).

While this violent action was going on at Dai Do, the ARVN in Lam Son 218 had moved to block enemy escape routes to the northwest; 3d Battalion, 9th Marines (Lieutenant Colonel Edward J. Lamontagne) had attacked enemy units withdrawing westward; and 3d Battalion, U. S. 21st Infantry had completed the encirclement of the enemy to the northeast. Heavy fighting continued until about 16 May. As always, lines on the map were tighter than they were on the ground and the 320th NVA Division succeeded in momentarily breaking off contact.

They came back into the attack in late May. Once again the main force was met by the 2d Battalion, 4th Marines (Lieutenant Colonel Louis A. Rann), this time near the hamlet of Nhi Ha six miles northeast of Dong

Ha, on 25 May. Beginning that same day, the ARVN engaged an enemy column further to the west, just off Highway 1. Meanwhile, the 9th Marines (Colonel Richard B. Smith) with its own battalions plus 3d Battalion, 3d Marines (Lieutenant Colonel James W. Marsh) had also joined in the battle. By the end of the month the 320th NVA Division had been rendered, for the time, combat ineffective.

Mini-Tet

The enemy himself had launched his second major offensive for the year on 5 May, signalled by 119 rocket and mortar attacks ranging the length and breadth of the Republic of Viet Nam. In I Corps Tactical Zone within 24 hours the airfields at Da Nang, Marble Mountain, Quang Tri, and Chu Lai; the headquarters of both III MAF and I Corps in Da Nang along with the headquarters of the Force Logistics Command; the MACV compound in Hue; and the command post of the 101st Airborne Division were all hit. These attacks by fire continued on 11 and 13 May. Marble Mountain air facility took 20 or 25 rocket rounds.

On 19 May the enemy engaged the U. S. Army base at Camp Evans with a singularly lucky rocket attack. With 12 rocket rounds he hit an ammo dump. The resulting explosions destroyed several helicopters, and inflicted varying degrees of damage on a number of other aircraft. Some 80,000 gallons of fuel also went up.

On the 20th, MAG-16 at Marble Mountain was hit again. On 21 May, Camp Hochmuth at Phu Bai took 150 rounds of mortar fire. On 25 May, Cua Viet Naval Facility was pounded by 111 rounds of mixed rocket and mortar fire. Sixteen 10,000-gallon fuel bladders went up in flames. On 27 May Phu Bai was again attacked by fire.

Although the enemy had once again demonstrated his ability to coordinate wide-ranging attacks by rocket and mortar fire against Free World bases and inflict stinging damage in the process, his May attacks were but a pale shadow of his February Tet offensive. On 27 May he did make a fairly serious thrust at Tam Ky following his mortars with a ground assault. Three hundred houses were destroyed. Fifty civilians were reported dead.

Allen Brook. While 3d Marine Division was battling at Khe Sanh and Dong Ha and the 1st Air Cavalry and 101st Airborne Divisions had been fighting their fights in the A Shau Valley and west of Hue, things had been fairly quiescent for the 1st Marine Division in Quang Nam province.

On 12 March, 1st and 2d Battalions, 7th Marines (Lieutenant Colonels William J. Davis and Charles E. Mueller) and the 3/5 Armored Cavalry Squadron (Lieutenant Colonel Hugh J. Bartley, USA) had launched Operation Worth 15 miles southwest of Da Nang.

By late April, it was apparent that the enemy had fed in the equivalent of an NVA division south of Da Nang. At the year's beginning the 31st NVA Regiment had been found in western Quang Nam province. In April, the 141st NVA Regiment was identified and a little later there was reason to suspect that the 36th NVA Regiment was in "Go Noi island," a delta west of Hoi An, formed by the meanderings of the many-named Ky Lam river, and bisected by Highway One and the railroad.

At this point, 1st Marine Division (Robertson) made a definite shift in tactics. The defense of the Da Nang complex against rockets and mortars, and sapper attacks, had resolved itself into a thickly-manned, heavily-patrolled "rocket belt" extending in a semi-circle around Da Nang. With the additional troops now available plus thinning-out the rocket belt somewhat, it was decided to fan out in deeper-reaching, more mobile operations which would keep the NVA forces at arm's length from Da Nang.

On 4 May, Operation Allen Brook was launched by 2d Battalion, 7th Marines (Mueller) under control of 7th Marines (Colonel Reverdy M. Hall). The battalion went in on the western edge of Go Noi island and attacked eastward toward the railroad. For the first four days resistance was scattered. Then on 9 May the Marines ran into a large enemy force in the vicinity of the ruined railroad bridge over the Ky Lam near Xuan Dai. There was a hot fight, and 80 NVA were killed.

Four days later, 3d Battalion, 7th Marines (Lieutenant Colonel Roger H. Barnard) relieved the 2d Battalion, reversed direction, and started to sweep westward. On 16 May the enemy was met at Phu Dong, two miles west of Xuan Dai, in well-bunkered positions. Heavy fighting followed.

Control of Allen Brook now passed from 7th Marines to 27th Marines (Schwenk). Next day, 17 May, 3d Battalion, 27th Marines (Lieutenant Colonel Tullis J. Woodham, Jr.) heli-assaulted two miles west of Phu Dong, ran into a dug-in enemy almost immediately. In the next ten days the Marine battalions converged on the enemy, now identified as the 36th and 38th Regiments of the 308th NVA Division, with the fighting finally concentrating at Le Bac and Cu Ban, fortified hamlet complexes about five miles east of An Hoa.

In a coordinated ARVN operation, Hung Quang 1-38, two battalions of the 51st Regiment (Colonel Truong Tan Thuc) plus the 21st and 37th Ranger Battalions operated in the eastern part of Go Noi island, from 16 May to 25 May.

Mameluke Thrust. A companion operation to Allen Brook was Mameluke Thrust, launched by the 7th Marines (Hall) on 18 May after passing control of Allen Brook to 27th Marines. The Mameluke Thrust area was west and south of Da Nang, north of An Hoa, fan-shaped blanketing the corridors leading down from the mountains and pointed at Da Nang.

The enemy had been probing at Thuong Duc Special Forces camp in late April and early May. He was identified as the 31st Regiment, 308th NVA Division. Mameluke Thrust was begun with the entry of 1st Battalion, 7th Marines (Lieutenant Colonel William J. Davis) into "Happy Valley."

To screen the large area, extensive use was made of the "Sting Ray" concept, the pre-eminently successful technique worked out by the Marines, which introduces small reconnaissance teams into the objective area to bring down air and artillery fire on observed enemy.

Operations in Quang Tin Province. Southwest of the Allen Brook area, Americal Division had begun Operation Burlington Trail on 8 April. Three U. S. Army battalions would be used and it would last until 11 November.

Kham Duc, a Special Forces camp on the western edge of Quang Tin province, was the object of the 2d NVA Division's main attention in the May mini-Tet. First to be hit was Ngok Tavak outpost. Engaged by an NVA battalion on 10 May, the garrison, CIDG Montagnards reinforced by a section of Marine 105mm howitzers, resisted for twelve hours before pulling out.

General Cushman first elected to reinforce the main camp. A battalion of the 196th Light Infantry Brigade was flown in from Quang Tri by C-130; a rifle company came in from Chu Lai by helicopter. On 12 May the NVA attacked in regimental strength. The outposts on the surrounding high ground were all gone.

Two alternatives were open to General Cushman: to continue to reinforce or to withdraw. He saw no advantage in making a major battle of it, one that would have to be supported logistically entirely by air. He recommended that the camp be evacuated and General Westmoreland concurred.

In all, some 1,400 persons were taken out. In the process one C-130 with 150 Vietnamese aboard, was shot down on take-off; all were killed. Large quantities of supplies and equipment had to be abandoned or destroyed in place.

Marine Air Operations

Throughout late Spring, the 1st Marine Aircraft Wing, trying to adjust to the new rules for single-management of tactical air support, continued to provide all aviation services, acting much like a composite air force.

Bombing north of the 19th Parallel had halted 1 April following President Johnson's dramatic televised message to the Nation on the night before, in which he had announced the reduction in bombing, plans for preliminary peace talks, and his own decision not to seek re-election.

Marine Aircraft Group 36 (Wilson) had been operating its helicopter squadrons from both Phu Bai and Quang Tri. On 16 April, the Quang Tri squadrons were formed into provisional MAG-39 (Colonel John E. Hansen).

On 14 May, VMF(AW)-235 (Lieutenant Colonel Carl R. Lundquist) the last of the Marine F-8 squadrons in-country, left Da Nang for Iwakuni and staging to Kaneohe in Oahu where it would be redesignated VMFA-235 and re-equipped with F-4Bs. There had been three F-8 squadrons at Da Nang. First deployed in December 1965, the three Crusader squadrons—VMF(AW)s 312, 232, and 235—had flown a total of nearly 21,000 sorties.

The only new airplane to come into the Marine fighting inventory in 1968 was the long-awaited OV-10A—the North American Bronco. It was also called a "COIN" aircraft (For "counterinsurgency") or "LARA" (for "light armed reconnaissance aircraft") but it could do much more than these two descriptors would indicate. It had been designed and built to meet a Marine Corps requirement for a light, simple airplane that could operate from the deck of an amphibious assault ship, that could land and take-off from unimproved airfields, or a stretch of road if need be, and that could still perform a wide variety of missions: visual reconnaissance and surveillance to be sure, but also helicopter escort, ground attack, airborne tactical air coordination, artillery and naval gunfire spotting, battlefield illumination, and enough cargo and passenger space for liaison and utility use.

Six OV-10As, under command of Major Simon J. Kittler, arrived at Cubi Point in the Philippines on 22 May and passed to the operational control of 1st Marine Aircraft Wing. They came into Marble Mountain Air Facility on 6 July and flew their first combat mission four hours later. The OV-10As' arrival was particularly opportune. Marine O-1 light reconnaissance aircraft assets had declined to the vanishing point and U. S. Army O-1s were spread thin. Further, the OV-10A could share the demands for helicopter escort and ground fire suppression then being borne by the TA-4F and UH-1E gunships.

By the end of the year, 26 of the new aircraft had been added to the complements of the two Marine observation squadrons, VMOs 2 and 6, and had racked up a total of 3,000 sorties.

With its twin tail booms and its two big three-bladed

propellers, the OV-10A looked like something out of World War II; but it soon proved it could do the jobs for which it had been designed to do, with speeds well over 200 knots, good loiter time, and a respectable combat radius.

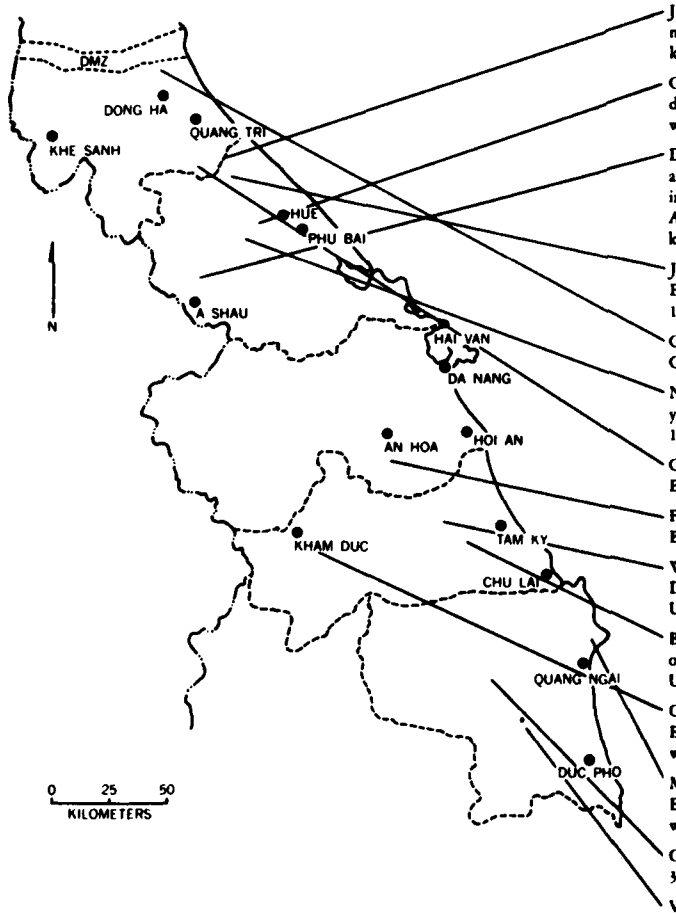
Command Changes

On 10 April, President Johnson had announced that General Abrams would succeed General Westmoreland in July. This was no surprise. General Westmoreland had been ComUSMACV since 1964. For a year General Abrams had been his Deputy. Best judgment was that President Johnson had delayed General Westmoreland's departure until the Tet offensive was demonstrably over and Khe Sanh no longer under siege.

In III MAF, May was a month of command changes. Major General William J. Van Ryzin, Deputy Commander, III MAF, returned home for promotion to lieutenant general and assignment as Chief of Staff at Headquarters, Marine Corps. Major General Tompkins, who had commanded the 3d Marine Division since the death of Major General Hochmuth, through the Tet offensive and the battles for Khe Sanh and Dong Ha, moved up to Deputy Commander, III MAF.

Major General Davis, was shifted over from Deputy Commander, Provisional Corps, Vietnam, to command

III MARINE AMPHIBIOUS FORCE MAJOR OPERATIONS, 1968: U. S. ARMY OPERATIONS



JEB STUART (22 Jan–31 Mar 68). 1st Air Cavalry Division's first major operation in ICTZ. Enemy dead, 3,268. U. S. Army losses: 291 killed, 1,317 wounded.

CARENTAN II (1 Apr–17 May 68). 101st Airborne Division. Enemy dead counted at 2,096. U. S. Army losses were 156 killed, 884 wounded.

DELAWARE VALLEY (19 Apr–17 May 68). 1st Air Cavalry Division and 101st Airborne Division. Large scale U. S. Army and ARVN raid into A Shau valley. Enemy lost 735 dead, much materiel. U. S. Army losses were 142 killed, 731 wounded. ARVN losses were 26 killed, 132 wounded.

JEB STUART III (16 May–3 Nov 68). Resumption of JEB STUART. Enemy losses were counted at 2,016. 1st Cav losses were 213 killed, 1,337 wounded.

CONCORDIA SQUARE (9–17 May 68). Eight-day battle by 1st Air Cavalry killed 349 enemy. U. S. losses were 28 dead, 116 wounded.

NEVADA EAGLE (17 May–Continuing). 101st Airborne Division. At year's close, enemy dead listed at 2,981. U. S. Army casualties stood at 175 dead, 1,161 wounded.

COMANCHE FALLS (11 Sep–7 Nov 68). 1st Air Cavalry Division. Enemy dead, 107. U. S. Army losses: 22 killed, 50 wounded.

FAYETTE CANYON (15 Dec–Continuing). 196th Light Infantry Bridgade.

WHEELER/WALLOWA (11 Sep 67–10 Nov 68). Long-term Americal Division Operation in Que Son valley. Enemy dead counted at 10,020. U. S. Army casualties were 682 killed, 2,548 wounded.

BURLINGTON TRAIL (8 Apr–10 Nov 68). Brigade-size Army operation ancilliary to WHEELER/WALLOWA. Enemy dead, 1,948. U. S. Army losses were 129 killed, 747 wounded.

GOLDEN VALLEY (10–12 May 68). Evacuation of Kham Duc. Enemy losses estimated at 300 killed. American losses 12 killed, 103 wounded, 21 missing.

MUSCATINE (19 Dec 67–10 Jun 68). 11th Light Infantry Brigade. Enemy lost 1,129 killed. U. S. Army losses were 186 killed, 417 wounded.

CHAMPAIGN GROVE (4–24 Sep 68). 11th Light Infantry Brigade. 378 enemy killed. U. S. Army losses: 43 killed, 156 wounded.

VERNON LAKE (25 Oct–2 Nov 68). 11th Light Infantry Brigade. Enemy lost 96 killed. U. S. losses were 1 killed, 4 wounded. Followed by VERNON LAKE II (2 Nov–Continuing).

of the 3d Marine Division. Major General Clifford B. Drake, newly arrived from Headquarters, Marine Corps, where he had been Director of Reserve, became Deputy Commander, Provisional Corps, Vietnam.

But the most significant change of command of all was one that occurred earlier. On 1 March, Clark McAdams Clifford was sworn in as the new Secretary of Defense, replacing Robert Strange McNamara.

Shift to More Mobile Operations

After the link-up at Khe Sanh, General Westmoreland, meeting with Lieutenant Generals Cushman and Rosson at the Provisional Corps, Vietnam, headquarters at Phu Bai, asked that a study be made of how to maximize troop use in the good weather. Cushman had been advocating more mobile operations for Quang Tri province since 1967, but had lacked the resources and had also been tied to the anti-infiltration system. Now both he and Rosson recommended Khe Sanh be abandoned, saying it could be covered by mobile forces working out of Landing Zone Stud, the new airfield and logistic base developed at Ca Lu for the support of 1st Cavalry Division during Pegasus.

Westmoreland agreed in principle but said that implementation should be deferred for two reasons. First, evacuating Khe Sanh might siphon off resources needed to support Operation Delaware Valley to be launched in the A Shau. Second, as he was scheduled to depart shortly, he preferred that the final decision be made by General Abrams.

Cushman and Rosson also recommended that modifications be made to the strong point obstacle system which had tied up so much of the 3d Marine Division's resources. Again, Westmoreland approved Cushman's and Rosson's recommendations in principle but asked that a detailed plan be developed. In his *Report*, General Westmoreland says "... the enemy's artillery and rocket fire had been so intense that the construction of the originally planned physical obstacles was not feasible."

Scotland II. At Khe Sanh, with Pegasus over, Scotland II was begun on 16 April. The troop list was impressive: the 1st Marines (Hughes) with six Marine infantry battalions and the 3d Brigade, 1st Air Cavalry Division (Campbell) with two Army battalions. The tactical headquarters was Task Force Glick, named for the commander, Brigadier General Jacob E. Glick, and originally established for the purpose of closing down the Khe Sanh base. On 25 April General Glick was relieved by Brigadier General Carl W. Hoffman. The command was briefly known as Task Force Hoffman, then became Task Force Hotel, a designation which would perist.

There were sharp actions radiating out from Khe Sanh in May against a resurgent 304th NVA Division. On the 14th of the month, the enemy tried to ambush a convoy moving west from Ca Lu to Khe Sanh. In turn, the ambushers were pounced upon by 2d Battalion, 3d Marines (Davis). Three days later, on 17 May, Company H, 2d Battalion, 1st Marines cut their way through another ambush, this one west of Khe Sanh, half-way along Route 9 to Lang Vei. That same day, 3d Battalion, 4th Marines (Lieutenant Colonel Lee R. Bendell) began a two-day fight in the vicinity of Hills 689 and 552 west of Khe Sanh.

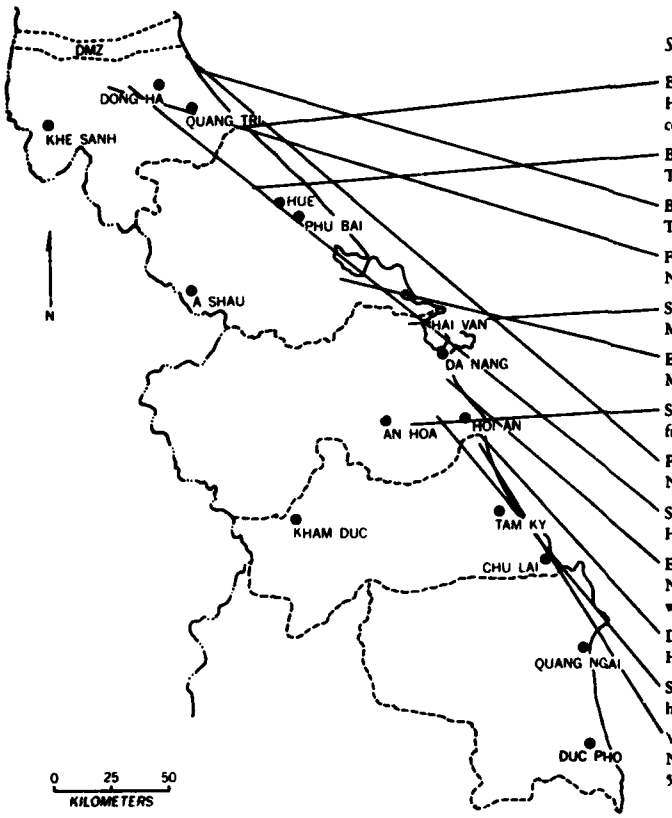
On 19 May on Route 9 about a mile east of the base, an NVA battalion was engaged by 2d Battalion, 1st Marines (Duncan). On 28 May, south of the base, an NVA battalion attacked Company F, 2d Battalion, 3d Marines. Company F drove them against Company E and the North Vietnamese, caught between the two companies, lost 230 killed. On 31 May, Company E's position was again attacked. Company E repelled the attack and then, with the help of Company B, 1st Battalion, 1st Marines, they counter-attacked.

Robin North, Robin South. By the end of May, it was obvious that the 308th NVA Division, fresh from Hanoi, with two regiments, the 88th and 102d, had moved south of Khe Sanh and a major attack was in the making. (The 304th NVA Division, badly battered, had been withdrawn to the north for refurbishing; this was not immediately known.)

From the viewpoint of General Davis, in Command of the 3d Marine Division, the new NVA regiments offered a sizable target well inside Viet Nam and an opportunity to test new high mobility concepts now that some of the restraints on the employment of the Division had been removed.

Accordingly, Task Force Hotel (Hoffman) mounted a counter-action using the 1st Marine (Hughes) and 4th Marines (Colonel Edward J. Miller). The plan involved blasting two large landing zones and fire support bases, designated Loon and Robin, in the rain forest canopy some five miles south of Route 9. Loon was to the west and Robin to the east. Because of the tortuous and obscure meanderings of the Laotian border, the projected area of operations was a kind of pocket or salient, and the closest Laotian territory actually lay eastward of Robin. There were enemy 130mm artillery pieces inside Laos that easily reached Khe Sanh six miles away.

"The North Vietnamese still want Khe Sanh and we are still trying to keep them from getting it," Brigadier General Hoffman told the press. "Our problem here is not like that in other parts of South Vietnam. Anybody out there who is moving and wearing a different kind of uniform is the enemy. We don't have to decide who is the bad guy and who is the good guy."



SPECIAL LANDING FORCE OPERATIONS, 1968

BADGER TOOTH (26 Dec 67–2 Jan 68). BLT 3/1 lifted by HMM-262. Forty-eight Marines killed, 87 wounded. Enemy losses counted at 40 killed.

BALLISTIC ARMOR (22–26 Jan 68). BLT 2/4 landed by HMM-361. Three Marines wounded. Six enemy dead.

BADGER CATCH (23–26 Jan 68). BLT 3/1 lifted by HMM-165. Thirteen Marines killed, 49 wounded. Ten enemy dead.

FORTRESS ATTACK (27 Jan 68). BLT 2/4 lifted by HMM-361. Negative results.

SWIFT SABER (7–14 Jun 68). BLT 3/1 lifted by HMM-164. Three Marines dead. One enemy killed.

EAGER YANKEE (9–16 Jul 68). BLT 2/7 lifted by HMM-265. Eight Marines killed, 50 wounded. Nine enemy dead.

SWIFT PLAY (23–24 Jul 68). BLT 2/7 lifted by HMM-265. No friendly casualties. Nine enemy killed.

PROUD HUNTER (18–21 Aug 68). BLT 2/26 lifted by HMM-362. Negative results.

SWIFT PURSUIT (28 Aug–19 Sept 68). BLT 2/26 lifted by HMM-362. Negative results.

EAGER HUNTER (25 Oct 68). BLT 2/26 lifted by HMM-363. Negative results. Joined GARRARD BAY. Seven Marines killed, 44 wounded. Nineteen enemy killed.

DARING ENDEAVOR (10–17 Nov 68). BLT 2/7 lifted by HMM-165. One Marine killed, 35 wounded. Thirty-three enemy killed.

SWIFT MOVE (20 Nov–9 Dec 68). BLT 2/7 and HMM-165 joined highly successful MEADE RIVER.

VALIANT HUNT I (15–26 Dec 68). BLT 2/26 and HMM-362. Negative results. Followed by VALIANT HUNT II (27 Dec 68–5 Jan 69). Three Marines killed, 19 wounded. Thirty-three enemy dead.

The plan was for 1st Marines (Hughes) to move in first, attack northward (Robin North); 4th Marines (Miller) would follow, then attack southward (Robin South).

There were five days of preparatory air and artillery fires into the objective area; and then on 2 and 3 June, 1st Marines helo-lifted 2d Battalion, 4th Marines (Rann) and 1st Battalion, 1st Marines (Gravel) into Loon and Robin. These battalions then attacked northward against blocking positions established south of Route 9 by 2d Battalion, 3d Marines (Davis). They met little opposition, found many abandoned positions. By 12 June, Robin North was over.

Meanwhile, on 3 June, 4th Marines had moved its 1st Battalion (Lieutenant Colonel James H. MacLean), reinforced with engineers and artillery, into Loon and Robin. At dawn, 6 June, the NVA attacked Companies C and D at Loon. On that same day, 3d Battalion, 9th Marines (Lamontagne) moved by helo into a new landing zone, Torch, three miles southeast of Loon and close to the Laotian border. The 1st and 3d Battalions, 4th Marines, then followed 3d Battalion, 9th Marines, into Torch. On 11 June the enemy tried a company-size attack against the first support base. They were stopped after reaching the 105mm howitzers of Battery C, 12th Marines.

On 16 June there was a heavy action between 3d Battalion, 4th Marines (Lieutenant Colonel Frank L. Bourne, Jr.) and a North Vietnamese battalion. Two days later, on 18 June, the enemy tried to breach the 3d Battalion's position once again and were severely handled. Next day, 4th Marines re-deployed to Khe Sanh and Robin South was over.

In all, Robin North and South had cost the enemy

over 725 troops killed or captured, and large amounts of weapons, ammunition and equipment. During these actions, the two reinforced Marine regiments, including eight batteries of artillery, were totally resupplied by helicopter. It was the first use of mountain-top fire bases by the 3d Marine Division and they worked well. The newly arrived 308th NVA Division had lasted only two weeks against the Marine assault; it withdrew and went north to re-fit.

Abrams For Westmoreland

On 10 June 1968 General Westmoreland held his last press conference in Saigon as ComUSMACV. It was a set-piece conference; the General reviewed the "benchmarks" of the war as he saw them. Then a reporter asked the last, final, question:

"General, can the war be won militarily?"

"Not in a classic sense, because—" Westmoreland paused briefly, "—of our national policy of not expanding the war."

But, said General Westmoreland, even if the United States could not win a "classic" victory, "the enemy can be attrited, the price can be raised—and is being raised to the point that it could be intolerable to the enemy."

Buse for Krulak. A little earlier, on 1 June, there had been another change of command of at least equal interest to the Marines in Viet Nam. At ceremonies at Marine Corps Air Station, Kaneohe, Oahu, Lieutenant General Henry W. Buse, Jr. relieved Lieutenant General Victor H. Krulak as Commanding General, Fleet Marine Force, Pacific. Diminutive, brilliant, sometimes controversial, "Brute" Krulak was ending 34 years in the Corps. Not in the operational chain of command, he nevertheless had had great influence on the size and shape of Marine Corps operations in Vietnam. He was presented the Distinguished Service Medal by Admiral U. S. Grant Sharp. Admiral Sharp himself would retire on 31 July from his post as Commander in Chief, Pacific, relieved by Admiral John S. McCain.

In III MAF, during June, Major General Carl A. Youngdale, who on a previous tour had been J-2 on the MACV staff, relieved Major General Donn J. Robertson as Commanding General, 1st Marine Division; and Major General Charles J. Quilter relieved Major General Norman J. Anderson as Commanding General, 1st Marine Aircraft Wing.

Special Landing Force Operations

On 7 June, BLT 3/1 (McQuown) lifted by HMM-164 (Lieutenant Colonel Robert F. Rick) went ashore ten miles northwest of Da Nang in Operation Swift Saber. Swift Saber was kind of an amphibious passage of lines; BLT 2/7 (Mueller) re-embarked in amphibious shipping and, along with HMM-265 (Lieutenant Colonel William L. Whelan), became Special Landing Force Bravo. Swift Saber operations ashore continued for a week, but did not develop any significant contacts.

The 3d Battalion, 1st Marines, since landing in the Badger Catch operation east of Gio Linh on 23 January, had been singularly active. Operations against the 803d NVA Regiment in the fortified hamlets of the Cua Viet River had continued through February. Then, on 5 March, the battalion had been moved to the Camp Carroll area as part of Lancaster II, its mission, substantially, to keep its portion of Route 9 open and protected. This had continued until 19 April when the battalion was redeployed to Ca Lu.

Khe Sanh Evacuated

With highly successful Robin North and South actions behind them, the next Task Force Hotel mission was the evacuation of Khe Sanh. As discussed earlier, Cushman and Rosson had argued for such a move immediately after Operation Pegasus. Westmoreland had concurred in principle but had questioned the timing of the withdrawal, asking for a detailed plan and indicating that the decision to execute should come from his successor, General Abrams. Westmoreland had left Saigon on 11 June.

Razing the Base. Meanwhile, the base itself was being dismantled and razed by the 1st Marines (Colonel Ross T. Dwyer, Jr.) and 11th Engineer Battalion (Lieutenant Colonel Victor A. Perry). Everything of value that could be removed was removed: supplies, ammunition, salvageable equipment and vehicles, fortification and building materials, airfield matting. Everything else was buried by bulldozer, or burned, or blown up. Working eastward from Khe Sanh to Ca Lu along Route 9, the engineers took out six tactical bridges (the components could be flown back in by helicopter, if needed for a future operation), left the culverts and by-passes in place. The job was completed 5 July.

There was fighting in and around Hill 689 some two miles west of the base. Heaviest contact was on 7 July when Company C, 1st Battalion, 1st Marines ran into a dug-in NVA company just west of the hill. The NVA came back in a night attack shortly after midnight, hitting Company A, 1st Battalion, 1st Marines, on Hill 689 itself. After that, things were relatively quiet.

1st Marines, mission completed, left Khe Sanh and redeployed to the Napoleon/Saline operational area, radiating out from Cua Viet.

The obvious questions were asked: Why, if Khe Sanh

were worth defending, virtually at any cost, earlier in the year was it being abandoned now? What had changed? Did the decision have major strategic implications? Were we abandoning the northeast corner of South Vietnam to the Communists?

At the White House, the press secretary, George Christian, announced that the abandonment of Khe Sanh had not been decided by President Johnson but was a military decision.

Hanoi was quick to claim that the "fall" of Khe Sanh was a "grave defeat" for the Americans, with "disastrous political and psychological consequences." Nguyen Thanh Le, spokesman for the North Vietnamese delegation at the Paris peace talks, said that American explanations that the base was no longer essential were just "sour grapes."

"The United States military commanders once decided to defend the base at all costs," said Mr. Le. "They are now forced to retreat from the base. The high command pretends the retreat was ordered because the base is unessential now. That makes me think of the La Fontaine fable of the fox and the grapes."

The official MACV explanation to the press was as follows:

". . . there have been two significant changes in the military situation in Vietnam since early this year—an increase in friendly strength, mobility and firepower and an increase in the enemy's threat due to both greater flow of replacements and a change in tactics."

"Mobile forces not tied to specific terrain must be used to the utmost to attack, intercept, reinforce or take whatever action is most appropriate to meet enemy threats."

"Therefore, we have decided to continue the mobile posture we adopted in western Quang Tri Province with Operation Pegasus in April. The decision makes the operation of the base at Khe Sanh unnecessary."

In a nutshell, Khe Sanh could be abandoned because the Marines now had enough troops and helicopters, and enough latitude of action, so that they could operate in a mobile mode, dominating the whole region, rather than being tied to the fixed defense of a base in the center of it.

Extending this high mobility concept to the whole 3d Marine Division, General Davis laid down some ground rules. Unit integrity would be reestablished; not only would organic battalions work with their parent regiments, but this would also apply to normal support units, particularly direct support artillery. Unessential combat bases and strongpoints would be closed, and those that were not closed would be made defendable by no more than one reinforced company. The reconnaissance effort was also to be upgraded, with from 30 to 35 teams to be kept out in the field at all times.

Operation Thor. Along the rest of the 3d Marine Division front, the principal trouble came from enemy shellings of base areas during June. The fuel dump at Camp Kistler, Cua Viet, had been hit and sixteen 10,000-gallon fuel bladders had gone up. Worse yet, on 20 June at Dong Ha, light shelling set off an ammunition dump fire which cost the Marines a quarter-million artillery and mortar rounds.

Operation Thor was conceived with the purpose of getting at the enemy's artillery positions and also at his sanctuary, by means of a massive application of air, artillery, and naval gunfire. It was begun on 1 July. The impact area was bounded by the southern edge of the DMZ, then north along the coast ten miles to Cape Mui Lay, then straight west for 16 miles, then a closing leg due south to the DMZ. Marine, Navy, and Air Force attack aircraft; Strategic Air Command B-52s; two cruisers and six destroyers; and some 118 pieces of Marine and Army artillery were all brought to bear in a seven-day barrage.

Exploitation of the barrier of fire created by Operation Thor was essentially the delayed third phase of General Cushman's spring counteroffensive; a general cleansing of the area north of Route 9 to the DMZ.

In the Cua Viet area, in continuation of Napoleon/Saline, 3d Marines (Colonel Milton A. Hull), attacked north on 5 July. On their left, in a coordinated action, 2d ARVN Regiment advanced astride Route 1 in Lam Son 234. First solid contact was by 1st Battalion, 3d Marines (Major Edward J. Rochford, Jr.) that first day at Lai An hamlet, six miles north of Dong Ha. They secured the hamlet by nightfall. July 6 was spent patrolling, seeking new contact. Mid-morning, 7 July, a Marine patrol developed an NVA company position a mile north of Lai An. This led to a fresh action.

Meanwhile, 2d Battalion, 3d Marines (Davis), advancing on the right of 1st Battalion, found the enemy on 7 July in the vicinity of Ben Lan and drove through the hamlet in an attack supported by naval gunfire.

West of Highway 1 in the Kentucky area of operations, 9th Marines (Smith) also sought to exploit Thor, working north and east of Con Thien. Contact was frequent, but small gauge. The largest fight was on 11 July when 3d Battalion, 9th Marines (Lamontagne) caught an NVA platoon in the open three miles north of Con Thien.

Further west, in the Lancaster II area, a three-regiment attack was begun on 17 July; 9th Marines on the east flank, 3d Marines in the center, and 2d ARVN Regiment on the west flank. The scheme was to land close to the DMZ, then push south against Route 9. The enemy did not elect to defend in strength. The biggest action took place on the first day, eight miles northwest of Camp Carroll, where the 3d Battalion, 9th

Marines met an enemy company dug in along a ridgeline. Working behind close air support provided by four Marine A-4s and two Marine F-4s, the 3d Battalion assaulted and took the position. The total action was concluded on 31 July. Dozens of fortifications and considerable amounts of supplies were found and destroyed.

Provisional Corps, Vietnam

On 1 July, the 101st Airborne Division was redesignated the 101st Air Cavalry Division. The 101st, has in fact, lost its parachute identity in Vietnam and has become, essentially, a helicopter-borne division. However, apparently, no one was quite satisfied with the new designation; because on 26 August, the 101st became the 101st Airborne Division (Air Mobile).

On 31 July, the 1st Brigade, 5th Mechanized Division (Colonel Richard J. Glikes, USA) arrived in I Corps Tactical Zone from its home base at Camp Roberts, Colorado. The terrain east and west of the axis of Highway One from Dong Ha north to Gio Linh offered good ground for mechanized operations; and the 1st Brigade, 5th Mechanized Division, was put in there. Initially, the new brigade was deployed to the quiet Quang Tri city area for training and acclimatization. On a unit-for-unit basis, it was scheduled to relieve the temporarily deployed RLT-27, which was scheduled to return to the United States in September.

On 1 August, Major General Richard G. Stillwell, USA, relieved Lieutenant General Rosson as Commanding General, Provisional Corps, Viet Nam. The Deputy Commander continued to be Major General Drake, USMC. On 15 August, the Provisional Corps was redesignated the XXIV Corps, an historic U. S. Army designation.

Third Offensive

While these events were taking place in the northern two provinces, the Communists' main effort was shifting to the central province of Quang Nam with Da Nang as the ultimate target.

Two major operations, Allen Brook and Mameluke Thrust, continued to screen the enemy's avenues of approach to Da Nang.

The 27th Marines (Schwenk), in Allen Brook, with its command post near Liberty Bridge, continued to move its two battalions, 1st Battalion, 26th Marines, and 1st Battalion, 27th Marines, about in checkerboard fashion in the "Go Noi Island" territory south of the Ky Lam-Thu Bon River against elements of the 308th NVA Division's 36th and 38th Regiments.

On 5 June, 1st Battalion, 26th Marines (Lieutenant Colonel Frederick J. McEwan) had a fight just west of Go Noi itself. Three days later, they met an NVA battalion at My Loc, three miles northeast of An Hoa. They then, on 11 June, moved north of the Thu Bon into "Dodge City" to cover the 7th Marines command post on Hill 55; there was a sharp fight on 15 June two miles south of the hill.

As Allen Brook reduced its radius of action, the 5th Marines (Colonel Paul G. Graham), shifted the focus of Mameluke Thrust southward to An Hoa. By now, it was evident that the enemy was preparing the battlefield for a foray against Da Nang.

On 16 August, 5th Marines with its 2d and 3d Battalions (Lieutenant Colonels Ernest C. Cheatham, Jr., and Donald N. Rexroad) launched a sweep eastward from An Hoa through the old battleground previously worked by 7th Marines in Allen Brook. In blocking position, 13 miles west of Hoi An, was 2d Battalion, 7th Marines (Mueller). BLT 2/7 had come ashore on 23 July in Swift Play, a one-day Special Landing Force operation. Swift Play was the second landing for BLT 2/7 since their becoming SLF Bravo in June; the first had been Eager Yankee in which they had been landed by HMM-265 (Lieutenant Colonel Roy J. Edwards) on 9 July east of Phu Bai.

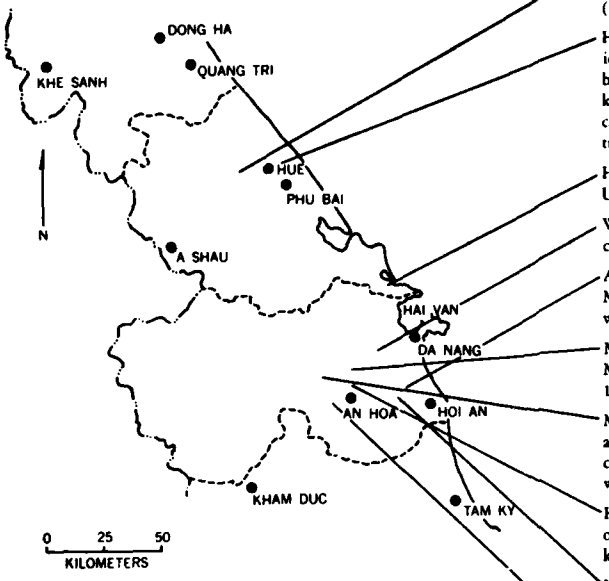
Blocking for the 5th Marines' thrust gave more satisfying results than either Swift Play or Eager Yankee. On the second day, 17 August, 200 enemy were pushed by the drive into BLT 2/7's position; fifty were killed. The action continued through the next day; the enemy ricocheting back and forth between the 5th Marines and BLT 2/7, with at least fifty more being killed.

East of the Mameluke Thrust area, in the general vicinity of Hoi An, Korean Marines and elements of the Americal Division were also engaged.

Despite these spoiling operations, the enemy did succeed in getting his attack force within striking distance of Da Nang. August 18 is the date used to mark the beginning of the North Vietnamese "Third Offensive" of 1968. The pattern was familiar: rocket and mortar attacks against provincial and district headquarters and military installations, followed in some cases by sapper raids. The enemy's main target in I CTZ was Da Nang. His evident scheme was to move his regular units into the city, once its defenses had been breached by VC sappers. By curious and unrelated coincidence, there were troubles of another kind in Da Nang at this time. From 16 through 18 August, there was rioting in III MAF's brig, troubles rooted supposedly in protests against cold food and long delays before trial.

Mid-morning, 22 August, the ARVN 21st Rangers made contact with the 38th NVA Regiment eight miles south of Da Nang. Reinforced by 37th Rangers, they killed 82 NVA. But while the North Vietnamese had, for the moment, been intercepted, the more elusive Viet Cong were literally inside the city gates.

III MARINE AMPHIBIOUS FORCE MAJOR OPERATIONS, 1968: THUA THIEN—QUANG NAM PROVINCES



NEOSHO (1 Nov 67-20 Jan 68). 4th Marines. Marine losses: 12 killed, 73 wounded. 78 enemy killed. Followed by NEOSHO II (21-24 Jan 68). 1st Marines. Four Marines wounded, one enemy killed.

HUE CITY (2 Feb-2 Mar 68). 1st Marines. Three U. S. Marine battalions and 13 Vietnamese battalions engaged eight to eleven NVA/VC battalions. Marine losses: 142 killed, 857 wounded. ARVN losses: 384 killed and about 1,800 wounded. Enemy dead counted at 5,113; captured weapons at 1,632. Of these, 1,943 enemy dead and 657 captured weapons are credited to the U. S. Marines.

HOUSTON (26 Feb-12 Sep 68). 5th Marines; later, 26th Marines. U. S. losses: 121 killed, 848 wounded. Enemy dead, 702.

WORTH (13-26 Mar 68). 7th Marines. Enemy lost 167 killed. American losses: 27 killed, 89 wounded.

ALLEN BROOK (4 May-24 Aug 68). 7th Marines; after 18 May, 27th Marines. Enemy lost 1,017 killed. Marine losses were 172 dead, 1,124 wounded.

MAMELUKE THRUST (18 May-23 Oct 68). 7th Marines; later, 5th Marines. Enemy killed counted at 2,728. Marine losses: 267 killed, 1,730 wounded.

MAUI PEAK (6-19 Oct 68). Relief of Thuong Duc by 7th Marines and 51st ARVN Regiment. Enemy losses: 353 NVA dead. Marine casualties: 28 dead, 100 wounded. ARVN casualties: 15 dead, 48 wounded.

HENDERSON HILL (23 Oct-7 Dec 68). 5th Marines' continuation of MAMELUKE THRUST. Communist dead, 700. Marine losses, 35 killed and 231 wounded.

MEADE RIVER (20 Nov-9 Dec 68). 1st Marines' classic cordon-and-search operation. Marine losses were 107 killed, 385 wounded. Enemy losses counted at 841 killed.

TAYLOR COMMON (7 Dec-Continuing). Task Force Yankee operation with 5th Marines and BLT 2/7.

Fight at Cam Le Bridge. In the pre-dawn hours of 23 August, the 402d VC Sapper Battalion had gotten across the river, behind a cloud of mortar and rocket shells, had routed the Popular Force detachment guarding Hoa Vang District headquarters south of the air base, and had seized a foothold on the south end of Cam Le bridge.

Cam Le bridge is a long, narrow one-way concrete span, one of two bridges that carries Highway One in from the south into Da Nang. Marine MPs from Company C, 1st Military Police Battalion, moved quickly to the north end of the bridge and stopped the enemy there. At first light, Company A, 1st Battalion, 27th Marines attacked the Viet Cong rear and pried him loose from the bridge.

At Hoa Vang district headquarters, two platoons of ARVN Rangers came charging up to rally the Popular Force defenders and the VC were driven off.

Four miles south of the river, the 38th NVA Regiment was caught between the ARVN and the Marines. After their fight with the Rangers, the 38th next collided with the 1st Battalion, 51st ARVN Regiment. The ARVN, supported by Marine air and artillery, made a dawn attack on 24 August. Company F, 2d Battalion, 27th Marines, got into it on the next day, 25 August.

In the closing days of the month, as the 38th NVA Regiment sought to break off and withdraw, it had to run the gauntlet of ARVN and Marine elements. In all, from 22 to 31 August, the North Vietnamese lost some 1,072 dead south of Da Nang.

Further south, there had been a three-day battle for Tam Ky. The enemy, identified as the 1st VC and 21st NVA Regiments from the 2d NVA Division, was first intercepted five miles west of the Quang Tin provincial capital on the morning of 24 August. With heavy air and artillery support, the 2d Battalion, 1st U. S. Infantry; the 4th Battalion, 21st U. S. Infantry; and the 4th ARVN Cavalry Regiment ripped up the attacking columns.

Along the DMZ. The 3d Marine Division's tactical area of responsibility, Quang Tri province, was almost quiet during August.

On 19 August, 2d Battalion, 1st Marines (Duncan)

made a raid into the DMZ in the Kentucky area on the heels of intensive B-52 strikes, landing 4,000 meters west of Hill 56 where Company B, 1st Battalion, 1st Marines, reinforced by tanks, was emplaced. There was also fighting in the Lancaster area, some three miles southwest of Con Thien, on 19 August. Two companies of the 9th Marines got into a smart action which went on for three days.

The 1st Brigade, 5th Mechanized Infantry, now thoroughly warmed up, on 26 August, was assigned responsibility for the Kentucky and Napoleon/Saline tactical areas. This permitted the 1st Marines (Colonel Robert G. Lauffer), who had been operating there since redeploying from Khe Sanh, to move back down south and rejoin their parent 1st Marine Division in Da Nang. This, in turn, was a necessary prelude to freeing up the 27th Marines (Schwenk) so that they could depart in September.

September

The 1st Marines' 3d Battalion (Lieutenant Colonel Daniel J. Quick) was already at Da Nang. The regiment now moved into old, familiar, dangerous ground: the triangle fanning out southward from the air base and Marble Mountain, bounded generally by the railroad and the sea, an area in which they had worked in 1966 and 1967.

Just north of Da Nang, Operation Houston, a two to three battalion effort in the Hai Van pass area and in the Phu Loc district lowlands, begun on 27 February to keep Highway One open and permit rehabilitation of the railroad, was ended on 12 September. Traffic was moving freely and almost without impediment between Da Nang and Hue.

Withdrawal of RLT-27 (Schwenk) began on 10 September, lifted off in commercial contract aircraft with an assist from Marine KC-130s. The two battalions and regimental headquarters, reduced to cadre strength and destined for Camp Pendleton, arrived in San Diego on 16 September. Next day, BLT 1/27 (Major Kenneth J. Skipper), also down to a cadre, was back to its Hawaiian base at Kaneohe. RLT-27's vehicles and equipment left Da Nang on 22 September in SS *Seatrain Florida*, arriving in San Diego on 10 October. BLT 1/27's cargo similarly followed in USNS *Brostrom*, getting to Pearl on 29 September. The 27th Marines and BLT 1/27 now had to be rebuilt to be ready for other possible contingencies.

South of Da Nang and west of the 1st Marines' sector, 7th Marines (Colonel Herbert L. Beckington) continued its operations north of the Thu Bon-Ky Lam River. There was a sharp action on 20 September, three miles south of the regimental CP on Hill 55. An NVA battalion was caught in a box made up of the 2d and 3d Battalions, 7th Marines; the 37th Rangers; and the 4th Battalion, 51st ARVN Regiment. Trapped in a killing zone near the intersection of the railroad with Route 4, the Communists lost 101 dead.

The 5th Marines (Graham), further west and south in the wider ranging Mameluke Thrust operation, fought no decisive engagements; but it was evident that the 21st NVA Regiment, after its defeat at Tam Ky, had entered the An Hoa Basin. There were small, sharp fights north of the Thu Bon and south of the Vu Gia.

The 3d Marine Division meanwhile was preempting an offensive across the DMZ by all three regiments of the rejuvenated 320th NVA Division. There was a two-pronged spoiling attack in the Lancaster area launched from the Rockpile. Moving out on 31 August, 9th Marines (Colonel Robert H. Barrow) went up the Nui Tia Pong ridge, five miles west of the Rockpile, then swung north against Dong Tien Mountain, taking it on 9 September. The 3d Marines (Colonel Richard L. Michael, Jr.) went against Mutter's Ridge, three miles north of the Rockpile on 2 September, then swung left against Hill 461, securing it on 11 September.

Further to the east, on 13 September, a task force from the 1st Brigade, 5th Mechanized Infantry, jabbed an armored thrust into the DMZ in concert with the 2d Battalion, 2d ARVN Regiment, supported by two platoons of Marine tanks. Boundary between the two columns was Highway One.

Next phase was a sweep by Task Force Hotel, now commanded by Brigadier General William C. Chip, between Mutter's Ridge and the Ben Hai River; this five-battalion effort yielded over 500 weapons, nearly 5,000 mines, 20,000 mortar rounds, 13 tons of explosives, and a million and a quarter rounds of small arms ammunition. The planned offensive by the 320th NVA Division had been thoroughly gutted.

USS New Jersey. To the delight of the Marines, the long-awaited USS *New Jersey* (BB-62), with its nine 16-inch rifles and twenty 5-inch guns, took station off the DMZ on 29 September. The 16-inch rifles with their 24-mile range extended the naval gunfire fan almost as far inland as Camp Carroll. The 2,700 pound armor-piercing and 1,900 pound high-capacity 16-inch projectiles were eight times the weight of the 8-inch shells thrown by the heavy cruisers. First fire mission for III MAF was fired on 30 September; 29 16-inch shells and 116 5-inch shells were delivered against eight targets north of the DMZ.

The first mission within sight and sound of the Marines came a little later. On 4 October, 2d Battalion, 26th Marines (Lieutenant Colonel William F. Sparks), operating six miles north of the Rockpile, ran into a small, but well-entrenched enemy unit. USS *New Jersey*

(BB-62) laid in twenty-eight 16-inch rounds, collapsed two bunkers, damaged two others.

BLT 2/26, lifted by HMM-362 (Lieutenant Colonel Walter H. Shaver, Jr.), had landed on 18 August near the mouth of the Cua Viet River in Operation Proud Hunter. The operation had lasted three days and was a zero on both sides. They had landed again on 28 August in Operation Swift Pursuit, with the same negative results. Control passed then to 3d Marine Division operational control, 2d Battalion, 26th Marines, found more profitable employment.

October

In general, October was a quiet month along the DMZ. The 4th and 9th Marines had fanned out in regimental-size sweeps west and south of Khe Sanh, making almost no contact with the enemy.

Meanwhile, the northeast monsoon was adding its seasonal problems to the conduct of operations throughout I Corps Tactical Zone. On 14 and 15 October, 12 inches of rain came down on Dong Ha, 10 inches on Da Nang. On 15 and 16 October, there were 15 more inches at Da Nang, six inches at Chu Lai.

On 23 October, a task force from the 1st Brigade, 5th Mechanized Division, in concert with a task force from the 2d ARVN Regiment made another armored thrust into the DMZ; essentially, a repeat of the September maneuver. By mid-morning, the ARVN column, supported as before by two platoons of Marine tanks and operating on the right of Highway 1, had made heavy contact two miles northeast of Gio Linh. The next morning, the Army task force operating on the left, sliced eastward. It hit the enemy hard and fast, killing 298 of them, and taking a remarkable total of 268 weapons.

1st Cavalry Redeploys. With the situation along the DMZ no longer critical, ComUSMACV ordered the redeployment of the 1st Cavalry Division (Air Mobile) from ICTZ to III Corps Tactical Zone. On 28 October, the 3d Brigade moved out; last increments of the Division were gone by 12 November. Troops and light equipment went out by 7th Air Force transport aircraft; heavy gear, by Seventh Fleet amphibious ships. The 3d Marine Division and 101st Airborne Division (Air Mobile) adjusted their boundaries to fill in the vacated TAOR. The 1st Cavalry, in their time in I Corps had added some solid battle honors to their standards: Operations Jeb Stuart, Pegasus, Concordia Square north of Dong Ha, Delaware Valley, and Comanche Falls, the last an operation in enemy Base Area 101, begun on 11 September and concluded on 7 November.

Another redeployment from ICTZ was the 2d Light Anti-Aircraft Missile (LAAM) Battalion (Lieutenant Colonel Donald E. Gunther) which departed from Chu Lai on 11 October to return to its home base at twenty-nine Palms, California, without ever having been put to the test of firing one of its Hawk missiles in anger.

Thuong Duc and Maui Peak. Thuong Duc Special Forces camp, another of those camps garrisoned largely by CIDG, commanded by ARVN Special Forces, and advised by U. S. Green Berets, had been established in 1966. It stood in the Vu Gia river valley which is the natural line of drift from A Shau into central Quang Nam province. The enemy started pressuring it hard in late September. On the 28th, there was an attack in which two outposts were captured and then retaken. The enemy had undoubtedly optimistically taken into account the worsening weather, as the northeast monsoon set in, to neutralize, at least partially, tactical air support of the camp. He was wrong. Fire power (artillery and bombing, much of the latter delivered by Marine A-6As guided by radio beacons) broke up his attack.

To clean up the situation further, 1st Marine Division launched Maui Peak on 6 October, a regimental-sized relief under control of the 7th Marines (Beckington).

The enemy was known to be in strength on the high ground on three sides of the camp. A column moving along Route 4 which parallels the Vu Gia River would have to pass between the enemy on Hill 163 and other enemy positions across the river. It was a classic, predictable enemy tactic: to attack an outpost and then prepare an ambush for the relieving column. To take advantage of the obvious, 7th Marines' plan of attack was to send a column down the axis of the road to develop and fix the enemy, and then to land behind him in strength while he was so engaged.

The 2d Battalion, 5th Marines (Lieutenant Colonel James W. Stemple) coming overland had, by noon of 6 October, run into a semi-circle of fortified positions four miles east of the camp. Meanwhile, 2d Battalion, 7th Marines (Lieutenant Colonel Neil A. Nelson) followed by 1st and 2d Battalions, 51st ARVN Regiment, went in, unopposed, at Landing Zone Vulture, three miles northwest of the camp. 3d Battalion, 5th Marines (Lieutenant Colonel Rufus A. Seymour), destined for Landing Zone Sparrow, three miles southeast of Thuong Duc, found it too hot with anti-aircraft fire and after three tries diverted to an alternate landing zone three miles further east. The 2d Battalion, 5th Marines, not impressed by the quality of the enemy defenses in front of them, drove through and went up next day onto Hill 163, two miles east of the camp. Fighting in the vicinity of the hill continued through 8 October.

The last solid clash was on 12 October when two NVA companies attempted to overrun Company E's position on Hill 163. The two battalions of the 51st

ARVN Regiment also had a fight on 12 October, two miles north of Thuong Duc. The operation continued until 19 October.

Mameluke Thrust Ends. South of Thuong Duc, Mameluke Thrust, which had begun on 18 May, was brought to a close on 23 October and replaced by Henderson Hill. In its five months, Mameluke Thrust had claimed 2,728 enemy killed. A high percentage of the kills were attributed to the 1st Reconnaissance Battalion, commanded by Lieutenant Colonel Broman C. Stinemetz until 26 July, and after that by Lieutenant Colonel Larry P. Charon, using Sting Ray techniques.

The 1st Reconnaissance Battalion had become expert at quiet insertions and lying silent in its observation posts awaiting enemy movement. In October alone, they put out 104 patrols, killed 389 North Vietnamese and had no fatal casualties themselves. The best shoot of the month was made by a 21-man patrol inserted on a hilltop above the Vu Gia River some 21 miles southwest of Da Nang. On 22 October, after an eight-day wait, they brought down artillery fire on an NVA company marching along in route column. Next day, the main body of presumably the same NVA battalion entered the killing zone. Air and artillery was brought to bear. Unbelievably, on the following day another NVA company marched unheedingly into the impact area. The reconnaissance team, having directed 15 air strikes and 12 artillery missions and having killed by their count, 204 enemy, was taken out on 24 October without losses.

The BLT 2/26 (Sparks) landed south of Marble Mountain on 25 October in Eager Hunter. It was a one-day operation and bloodless. The BLT 2/26 then married up with 2d Battalion, 1st Marines (Lieutenant Colonel John E. Poindexter) in Operation Garrard Bay, essentially a series of cordon-and-search actions. There were no great number of kills, but several wanted persons were scooped up, and Da Nang was notably free of mortar attacks from that direction while Garrard Bay was going on. It lasted until 16 November.

Logistics Operations

In October, Brigadier General James A. Feeley, Jr., an aviator with a strong logistics background, relieved Brigadier General Harry C. Olson, a supply officer, as Commanding General, Force Logistics Command. The original Force Logistic Support Group (or FLSG) which had landed with the 3d Marine Division in 1965, had been built around the Division's Service Battalion with augmentation derived from the 3d Force Service Regiment based on Okinawa. When the 1st Marine Division joined III Marine Amphibious Force in 1966, it brought along the 1st Force Service Regiment; and the FLSG was expanded into the Force Logistics Command, or FLC.

The command itself and the largest of its installations were at Da Nang. Two subordinate FLSGs were maintained. The FLSG A (Colonel Horton E. Roeder) was divided between Da Nang and Phu Bai. FLSG B (Colonel Harold L. Parsons) was at Dong Ha and Quang Tri. Logistic Support Areas (LSA), predicated on amphibious logistic doctrine, were opened and closed as required to support operations. Force Logistic Support Units, or FLSUs, operated from these LSA.

The whole logistic system stood up well to the tests imposed by the Tet offensive, the transition to more mobile tactics, and the vile monsoon weather in late 1968. III MAF's Marines were better fed, better clothed, and better supplied than any expeditionary force ever fielded by the U. S. Marine Corps. (The multiplicity of tasks performed, and performed well, by the FLC deserves far more space than is available in this article.)

Bombing Halt

On 29 October, General Abrams, called back to Washington for consultations, conferred with the President. Presumably, he was asked if he could accept from a military standpoint a cessation of attacks by fire against North Vietnam. Presumably, he gave his reluctant consent. On 31 October, President Johnson told the nation and the world that he was halting all air, naval, and artillery bombardment of North Vietnam, commencing 8 a.m., eastern standard time, 1 November 1968. The President added the caveat that General Abrams would have the right to retaliate against enemy attacks across the DMZ if he deemed it necessary.

On 3 November, the Vietnamese communists announced in Paris they were ready to participate in peace talks. But then on 5 November, they refused to attend the talks, accusing the United States of breaking its promise by continuing its reconnaissance flights over North Vietnam. The United States, in turn, announced that the reconnaissance flights revealed intensified North Vietnamese efforts to resupply forces in the south, particularly along the routes through Laos.

The bombing halt and accompanying political maneuverings in Paris were not enthusiastically received in III MAF, particularly in 3d Marine Division which had to bear the brunt of North Vietnam's use of the staging areas immediately north of the Ben Hai River.

Translated into terms of Marine air operations, the bombing halt did not reduce the number of sorties flown by Marine tactical air. Close air support requirements in ICTZ went up, not down. There were also

more missions to be flown against NVA base camps and lines of communication feeding into I Corps.

Accelerated Pacification

The 1st of November marked not only the beginning of the bombing halt; it also was the beginning of the Le Loi or Accelerated Pacification campaign. This U. S. supported South Vietnamese campaign was designed to regain by 31 January 1969, the pre-Tet level of security within the rural population, off-setting the damage done to the pacification effort by the enemy's three 1968 offensives. A parallel program was the Phoenix or Phung Hoang campaign, aimed at eradicating the Viet Cong infrastructure infesting the hamlets and villages. The objective was to be in the best possible posture by Tet 1969.

Of the 1,000 hamlets designated throughout the Republic of Viet Nam as Le Loi targets, 141 were in I Corps. The technique, not dissimilar from previous pacification campaigns, was to introduce Revolutionary Development cadre, representing a cross-section of Government of Vietnam services, into the target hamlet, along with security elements provided by either the Popular or Regional Forces. Protecting the effort was an outer ring of ARVN or U. S. forces.

Meade River. Directly related to the objectives of the Le Loi campaign was Operation Meade River, begun 20 November, by the 1st Marine Division. The target area was familiar ground; the troops called it "Dodge City" because of its shoot-'em-up characteristics. Ten miles south of Da Nang, it was a quadrilateral bounded on the south by the Ky Lam River, on the north by the lesser La Tho River, and on the east by Highway 1. The western boundary was drawn one mile west of the railroad. Hill 55 was at the northwest corner; the ARVN fort and district headquarters at Dien Ban was at the southeast corner. Route 4 bisected the area from east to west. In all, it was about five miles wide and three miles deep.

It was low ground, criss-crossed with rivers and streams, honeycombed with caves and tunnels; each hamlet, with its bamboo and thorn hedges and its drainage ditches indistinguishable from fighting trenches, was a potential fortified position.

1st Marine Division tactics were classic cordon and search; County Fair[1] techniques raised to the nth degree. To form the cordon, six Marine battalions were used; five organic to the 1st Marine Division and both battalion landing teams from the SLFs. The cordon was literally almost shoulder-to-shoulder, three-man fire teams being positioned every 15 meters around the perimeter.

The 1st Marines (Lauffer) was the designated command element. Participating battalions were 1st Battalion, 1st Marines; 2d and 3d Battalions, 5th Marines; 3d Battalion, 26th Marines; BLT 2/26 from SLF Alpha; and BLT 2/27 from SLF Bravo.

Enemy forces—elements of the 36th, 38th, and 368B NVA Regiments—within the target area were estimated at about 1,300. In addition, there were over a hundred named members of the Viet Cong political infrastructure known to be present.

Initially, the fighting was low-intensity, as small disorganized groups of the enemy tried to break out of the cordon. These were easily handled. By 25 November, the Government of Vietnam forces operating within the cordon had evacuated 2,600 civilians to the joint US/ARVN interrogation center.

Fighting became more hectic in the first week of December as the Marine cordon tightened on pockets of last-ditch defenders. The heaviest fighting was on 8 and 9 December when 3d Battalion, 26th Marines (Lieutenant Colonel J. W. P. Robertson) killed 251 enemy caught in a loop of the La Tho River, midway between the railroad and Highway 1.

The 9th of December was also the last day of the operation; the score stood at 841 NVA/VC killed, 182 captured (including 71 of the previously identified Viet Cong infrastructure), and 182 weapons taken. A later, more leisurely, count indicated a total of 1,210 enemy killed.

Almost simultaneous with the close of Meade River, Henderson Hill, the 5th Marines' (Colonel James B. Ord, Jr.) follow-on to Mameluke Thrust, was ended on 7 December.

Quang Tin-Quang Ngai Provinces

On 10 November, the Marine Corps Birthday, Special Landing Force Bravo—BLT 2/7 (Nelson), lifted by HMM-165 (Lieutenant Colonel George L. Patrick—had executed Operation Daring Endeavor, landing across the Cua Dai River from Hoi An and driving against blocking positions established along Highway 1 by elements of the Americal Division and the ROK Marine Brigade. It was the anniversary of Blue Marlin, executed in the same area with a similar scheme three years before.

On 11 November, Americal Division (Major General Charles M. Gettys, USA) declared its year-long Wheeler/Wallowa operation over. The enemy had largely been forced out of rice rich Que Son valley, first entered in force by III MAF in Operation Harvest Moon in December 1965.

[1]County Fair techniques, as first developed by the 9th Marine Regiment early in 1966, are discussed in some detail in "Marine Corps Operations in Vietnam, 1965-1966," *Naval Review, 1968*, pp. 28-29.

New Operations. Taylor Common was the successor to Henderson Hill in the An Hoa basin area. Control headquarters was the newly activated Task Force Yankee (Brigadier General Ross T. Dwyer, Jr.), and assigned troops included six Marine infantry battalions. The venture had a two-phase mission: first to clear An Hoa basin and then to penetrate Base Area 112 in the high ground to the west and southwest.

The prospective enemy was the long-present 21st NVA Regiment, the 141st NVA Regiment, and elements of the 368B NVA Artillery Regiment. It was also hoped that the operation would get at the Viet Cong command and control structure for the southern three provinces in I Corps. Cooperating with the Marines was the 1st Ranger Group (21st, 37th and 39th Battalions).

Taylor Common got underway on 7 December. As of the year's end, the enemy had made no determined defense. The largest fight was that of the 1st Ranger Group, which in four days, 26 through 29 December, killed 286 enemy.

Elsewhere in Quang Nam province, Fayette Canyon was started on 15 December. Also on 15 December, the SLFs made the last of 13 landings for the year. BLT 2/26 (Sparks) landed south of Hoi An in Operation Valiant Hunt. By the end of the year, it had counted 242 enemy killed, 20 weapons taken; our losses were only 2 killed, 4 wounded.

North, along the DMZ, enemy activity continued at a low ebb. Dawson River was launched on 28 November. *Also in Quang Tri province, Marshall Mountain* was begun on 10 December.

At the other end of the Corps' tactical zone, the Army had a new series going: Vernon Lake.

Out with the Old

Changes were occurring in Washington. The Johnson Administration was in its last days. On 11 December, President-elect Nixon announced that the next Secretary of Defense would be Congressman Melvin R. Laird.

On 28 December, Camp J. J. Carroll was deactivated. Now that 3d Marine Division was freed of the yard-by-yard defense of the strong point/barrier system, the artillery bastion which had contributed so much to the defense of Khe Sanh was no longer needed.

Also on 28 December, the Free World Forces announced there would be no New Year's Truce, that normal operations would continue. On 30 December, the Viet Cong announced that they were observing a 72-hour cease-fire.

As the sands of the old year ran out, there were a series of command changes within III MAF. Major General Ormond R. Simpson had arrived from the States where he had been Commanding General of the Recruit Depot at Parris Island. He took command of the 1st Marine Division. Major General Youngdale moved up to Deputy Commander, III MAF. Major General Tompkins, his tour over, returned to the United States to become Commanding General, Marine Corps Base, Camp Lejeune.

Summing up for 1968

The year 1968 in I Corps Tactical Zone divides itself sharply into two halves. Certainly, the first half was the period of greatest combat activity of the war with the enemy's main effort centered on the northern two provinces. III MAF, together with the ARVN, defeated him in his excursions across the DMZ, expelled him from Hue, and beat him badly at Khe Sanh. By mid-May the enemy had shifted his main attack southward, moving against Da Nang. Again he was defeated as he was also in August.

In the second half of the year, there was a marked change in his strategy and tactics. After his August failure, he pulled his major units back to his bases along and behind the borders. He gave up on his pursuit of military victory through large-scale attacks and reverted to small-unit attacks and harassment with mortar and rocket fire.

Statistics document the shift in enemy tactics. III MAF for the first six months of 1968 claimed 40,144 enemy dead; for the second six months, 22,093 dead. Weapons captured from January through June totalled 14,744; for the period July through December, the number dropped to 7,207. Our own casualties were 3,057 Marines killed, 18,281 wounded during the first half of 1968; 1,561 Marines killed, 11,039 wounded during the second half.

Roughly speaking, then, the intensity of ground combat for the second half of the year was about half of what it had been the first half.

Marine air operations, on the other hand, continued to show an increase. Fixed-wing combat sorties went up slightly, from 44,936 to 47,436; helicopter sorties almost doubled, from 388,000 to 639,194. These increases in part reflect the shift to more mobile tactics and our pursuit of the enemy into his remote base areas along the fringes of his border sanctuaries.

Until mid-1968, troop strength in III MAF continued its gradual but steady climb until a peak of 85,520 Marines was reached in September. This trend was reversed with the departure of RLT-27. The number of Marine infantry battalions dropped from 24 to 21; and by the year's end, Marine and Navy strength in III MAF stood at about 81,000.

On the other side, the number of NVA battalions estimated to be in I Corps had increased from 42 in

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December 1967 to 68 at the end of 1968. Many of the Viet Cong main force and local forces, old opponents of III MAF, had been shredded by the long war and had been dropped from our estimates of his order of battle as being no longer combat effective. More and more, it was a North Vietnamese foe who was encountered, some of them moving into old Viet Cong units, some fighting under their own colors. Even with the NVA, quality was down. North Vietnamese prisoners were often extremely young and poorly trained. Battlefield discipline had declined. Dead and wounded were being left behind and so were weapons.

General Lam's I Corps had continued to improve. The ARVN had stood up to the test of the Tet offensive well. In 1968, they accounted for 26,688 enemy killed, more than double the 12,488 attributed to them in 1967. The ROK Marine Brigade in its Victory Dragon series had killed another 2,504 enemy.

Added together, the Free World Military Forces in I Corps in 1968 had killed over 100,000 of the enemy, taken nearly 35,000 weapons.

Pacification Progress. At the year's end, the Le Loi Accelerated Pacification campaign seemed well on schedule. Of the 141 targeted hamlets, 116 were rated as "secure." Some 4,000 of the VC hard-core cadre ("infrastructure") had been reported as eliminated, a good proportion of this number a direct consequence of the highly successful Meade River operation.

Another index of progress was the Chieu Hoi or Open Arms program for returnees to governmental control. There were 3,118 ralliers in ICTZ in 1968, 535 of them in the months of November and December. The total was 23 per cent higher than the 2,539 former Viet Cong who rallied in 1967. These returnees brought with them 723 weapons. Also significant was the defection of 119 NVA soldiers, five times more than the 22 who had voluntarily surrendered in 1967.

One of the most successful U. S. contributions to the pacification effort continued to be the Combined Action Program wherein a Marine rifle squad was combined with a Popular Force platoon to provide local hamlet security. There were 79 Combined Action Platoons or "CAPs" at the year's beginning. They were organized into 14 companies under three Group headquarters: 1st CAG at Chu Lai, 2d CAG at Da Nang, 3d CAG at Phu Bai. During the year, a 4th CAG was activated to take over responsibility for coordination in the Quang Tri-Dong Ha-Cam Lo area. Five more company headquarters, and 23 more platoons were organized for a year-end total of 102 platoons, organized into 19 companies, under four Group headquarters. In addition to the Vietnamese Popular Forces involved, some 1,800 Marines and 120 Navy Corpsmen were invested in the program. During the year, the CAPs counted 2,368 enemy killed, 678 prisoners captured, and 780 weapons taken.

Related to the Combined Action Program was the successful introduction of Revolutionary Development cadre, protected by Popular Force and Regional Force units, into an additional 116 hamlets during 1968.

By the end of the year, it could be said that of the three million Vietnamese living in I Corps Tactical Zone, the proportion living in secured areas had increased from one half to two-thirds (the official percentage was 69 per cent secured). The remainder of the population was divided about evenly between areas under Viet Cong control and those areas being contested.

Commandant's Assessment. General Leonard F. Chapman, Jr., became the 24th Commandant of the Marine Corps on 1 January 1968, succeeding General Wallace M. Greene, Jr. He left almost immediately for a visit to Southeast Asia. In the summer of 1968, he made a second visit to the war zone as Commandant; and in January 1969, a third visit.

Reporting to the Department of Defense Subcommittee of the Senate's Committee on Appropriations on 23 July 1969, he had this to say:

"The Marine Corps has consistently advocated the principle that the war in South Vietnam can be conclusively won only through convincing the South Vietnamese people in the villages and hamlets that their hope lies with freedom, not with communism. Today, while the search for a negotiated settlement to the war continues, this becomes even more important."

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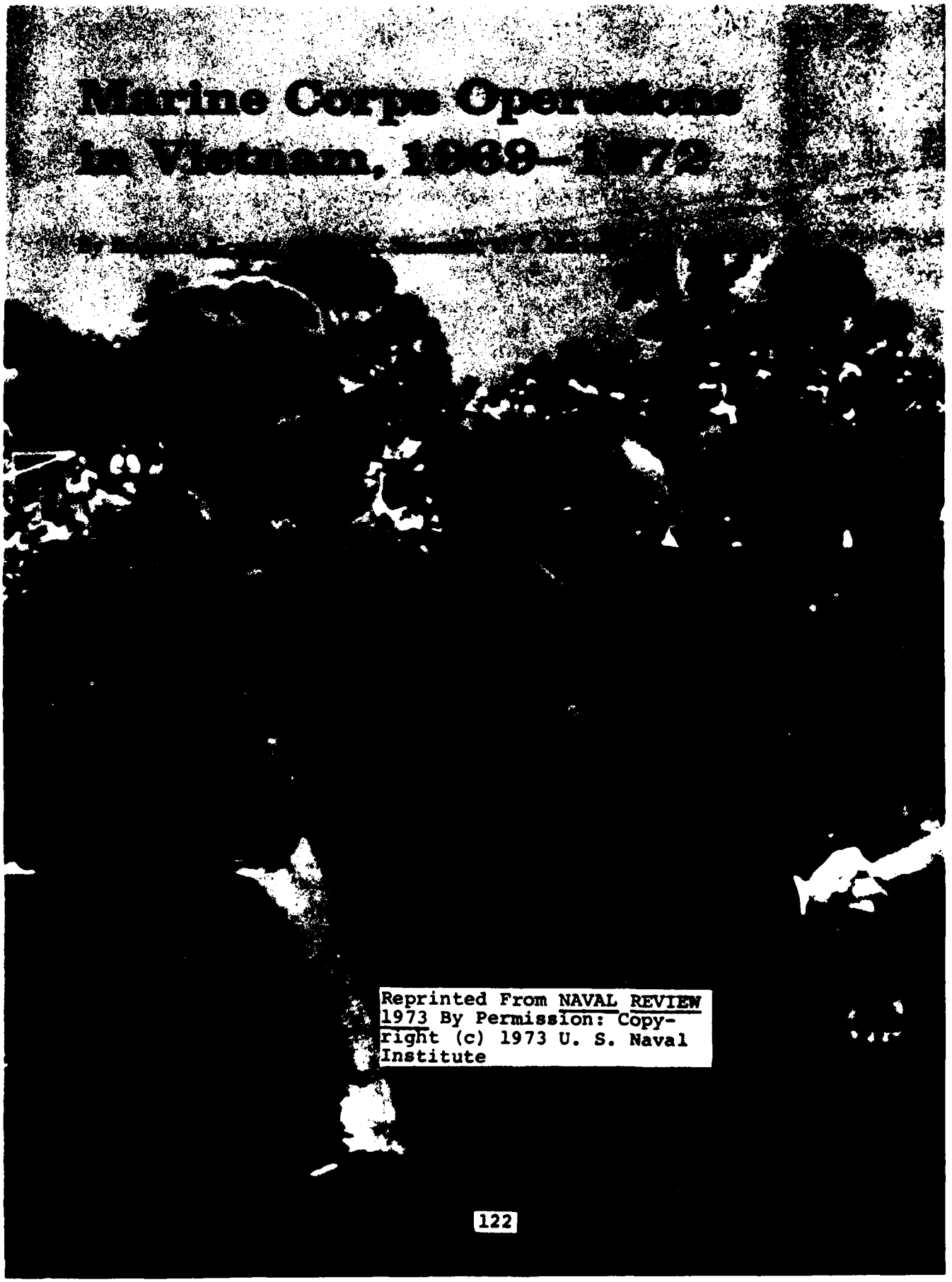

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On 30 April 1971, at Camp Pendleton, California, more than six years after the first ground combat Marines landed at Da Nang, the President of the United States welcomed home members of the 1st Marine Division on the Division's "official" return to the United States. From 1965 through 1971, nearly half a million Marines served in Vietnam. And after 1971 was long past, some Marines were still at war in that country.

General Simmons began his series of essays on Marine Corps participation in the Vietnam War with "Marine Corps Operations in Vietnam 1965-1966," which appeared in *Naval Review 1968*. This first piece began with the landing of the 9th Marine Expeditionary Brigade at Da Nang on 8 March 1965 and ended with the large scale actions of the III Marine Amphibious Force against North Vietnamese regulars who had crossed the Demilitarized Zone in the fall and winter of 1966. The second article in the series appeared in *Naval Review 1969* and covered the events of 1967, a year which saw Marines fighting in all five provinces of I Corps Tactical Zone and III MAF grown to the equivalent of a field army with the 1st and 3d Marine Divisions, and the U. S. Army's Americal Division, supported by 1st Marine Aircraft Wing, under its operational control. It was a year that also saw the first battle for Khe Sanh fought in April and heavy fighting around Con Thien. The third article, published in *Naval Review 1970*, covered 1968, the year of the momentous Tet offensive, the bitter fight for Hue, the climactic battle for Khe Sanh, and successively weaker enemy offensives. During this year the U. S. 1st Air Cavalry Division and 101st Airborne Division were deployed to the northern provinces and came under the operational control of III MAF. Marine strength in Vietnam peaked in September 1968 at over 85,500 Marines, more than had served ashore at either Iwo Jima or Okinawa. Strengths began to turn downward in that month with the departure of Regimental Landing Team 27.

"Marine Avaition in Vietnam" by the late General Keith B. McCutcheon, USMC, appeared in *Naval Review 1971* and in the following year, *Naval Review 1972* included "A View From FMF Pac of Logistics in the Western Pacific, 1965-1971" by Colonel James B. Soper, USMC (Ret.). Taken together, these articles and General Simmons' series—including this concluding article, which discusses the systematic withdrawal of Marine air and ground forces—provide a valuable record of Marine Corps operations in Vietnam.

Editor

As 1969 began, III Marine Amphibious Force, then commanded by Lieutenant General Robert E. Cushman, Jr., estimated that there were about 90,000 enemy either in I Corps Tactical Zone (ICTZ) or poised on its borders. III MAF's assessment of the enemy order of battle showed 89 battalions of widely varying strengths within ICTZ itself.

Along the DMZ, Major General Raymond G. Davis' 3d Marine Division was enjoying its quietest month since it entered Quang Tri province in July 1966. Davis' estimate was that the three independent North Vietnamese Army (NVA) regiments out in front of him were charged with screening the DMZ but were avoiding serious contact. The 3d Marine Division was under the immediate operational control of the U. S. Army's XXIV Corps which also had the 1st Brigade, 5th Mechanized Infantry Division in eastern Quang Tri province and the 101st Airborne Division in Thua Thien province.

In Quang Nam province, Major General Ormond R. Simpson's 1st Marine Division guarded the approaches to Da Nang, and the 2d Brigade, Korean Marine Corps, continued its responsibility for its own area of operations radiating from Hoi An. Further south, the large Americal Division was operating in Quang Tin and Quang Ngai provinces. Backing the ground troops, Major General Charles J. Quilter's 1st Marine Aircraft Wing had fixed wing groups at Da Nang and Chu Lai and helicopter groups at Marble Mountain, Phu Bai, and Quang Tri.

Also present in the northern five provinces, but somewhat overshadowed by the overwhelming U. S. presence, was the Army of Vietnam's I Corps, commanded by Lieutenant General Hoang Xuan Lam and including the 1st Army of the Republic of Vietnam (ARVN) Division in Quang Tri and Thua Thien provinces, the 51st ARVN Regiment in Quang Nam province, and the 2d ARVN Division in Quang Tin and Quang Ngai provinces.

Taylor Common

South and southwest of Da Nang, Operation Taylor Common, begun 7 December 1968, was continuing

under control of 1st Marine Division's Task Force Yankee, commanded until 14 February, by Brigadier General Ross T. Dwyer, Jr., and then by Brigadier General Samuel Jaskilka. Task Force Yankee at this time included Colonel James B. Ord, Jr.'s 5th Marines and the 1st and 3d Battalions of Colonel Michael M. Sparks' 3d Marines, the latter regiment being on temporary loan from the 3d Marine Division. Cooperating with TF Yankee was the 1st ARVN Ranger Group and the two Civilian Irregular Defense Groups at Thuong Duc and Nong Son. Taylor Common's area of operations included the An Hoa basin (the area drained by the convergence of the Thu Bon and Vu Gia rivers which combine to form the Song Ky Lam), as well as the high ground to the west and southwest of An Hoa which harbored the enemy's Base Area 112. Most of the resources and effort of Taylor Common were devoted to a deep thrust into this base area using fire support base techniques. The purpose, of course, was to destroy enemy base camps and caches and in this the operation was reasonably successful. Heaviest enemy contact however was in the "Arizona Territory," a piedmont agricultural area made desolate by the war, lying between the Vu Gia and Thu Bon rivers northwest of An Hoa.

On 15 January, Colonel Sparks and Lieutenant Colonel Ermil L. Whisman, who commanded Sparks' direct support artillery battalion, 1st Battalion, 12th Marines, were killed southwest of An Hoa when their helicopter was brought down by enemy ground fire. On 23 February, the 3d Marines were returned to Quang Tri province, and, on 8 March, Taylor Common was brought to an end, TF Yankee headquarters was dissolved, and responsibility for the An Hoa area was returned to the 5th Marines.

Bold Mariner

Meanwhile, on 13 January 1969, Battalion Landing Teams 2/26 and 3/26 had landed by helo and landing craft in the Van Tuong area on the northern face of Batangan peninsula, 12 miles south of Chu Lai. It was the old Starlite battlefield[1] revisited and this operation, called Bold Mariner, with both Special Landing Forces Alpha and Bravo involved, would be the largest Special Landing Force effort of the war. The Americal Division, in a coordinated operation, Russell Beach, moved a two-battalion task force onto the peninsula to cut off the southern exits. The soldiers and Marines joined hands in a cordon and together swept toward the sea, scooping up as they went all Vietnamese civilians for screening. Resistance was minimal, and as usual when operating in populated rural areas, most casualties were caused by antipersonnel mines. By 24 January, Battalion Landing Team 2/26 had been squeezed out of the tightening perimeter and reembarked in its Seventh Fleet amphibious shipping. BLT 3/26 followed aboard on 9 February. The joint Army-Marine effort had killed 239 enemy. In addition, some 12,000 Vietnamese had been screened and 256 of them identified as Viet Cong infrastructure or cadre (VCI).

There would be eight more SLF operations during the course of 1969, all in three southern provinces of I Corps Tactical Zone.

Dewey Canyon I

Also, as the year began, the enemy was busy filling up Base Area 611 in Da Krong valley in Quang Tri's southwest corner. Base Area 611 was fed by Route 922 coming in from Laos and, in turn, fed Route 548 through A Shau valley, from where men and supplies could be funnelled eastward toward Hue or southeastward toward Da Nang. The enemy must have felt relatively immune to ground action. Not only was the area a remote one, but also the monsoon weather continued to mask his activities.

On 22 January, General Davis sent three battalions of the 9th Marines into the Da Krong in Operation Dewey Canyon. Colonel Robert H. Barrow's 9th Marines were to be completely dependent upon helicopters for logistic support, a particularly disquieting prospect in view of the always uncertain flying weather. The North Vietnamese, on the other hand, with a tonnage requirement only a fraction of the Marines, had usable trails and roads running back into Laos. The convolutions of the Laotian border protected the enemy's back and a portion of his flanks from ground attack and he had—something of a rarity for in-country operations—a number of artillery pieces of up to 122-mm. caliber. His base area was also well-seeded with light antiaircraft weapons.

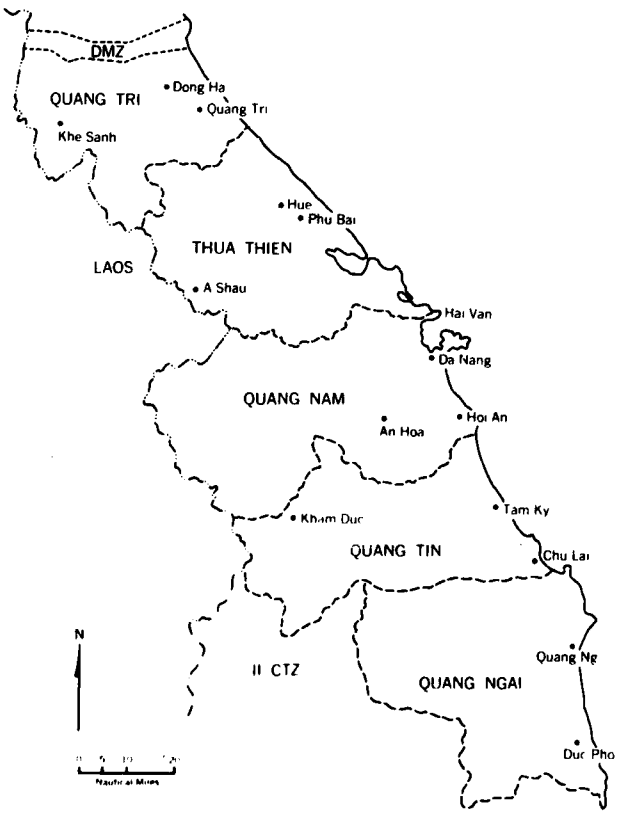
To meet this situation, Davis and Barrow made skillful use of fire support bases.[2] The 9th Marines

[1]Operation Starlite, 18–24 August 1965, was the first regiment-sized U. S. combat action since the Korean War. *See* "Marine Corps Operations in Vietnam, 1965–1966," *Naval Review, 1968*, pp. 18–19, and O. F. Peatross, "Application of Doctrine: Victory at Van Tuong Village," *Naval Review, 1967*, pp. 3–13.

[2]Under the fire support base (FSB) concept, pioneer and reconnaissance elements would go in first. A helo landing zone would be quickly cleared. Infantry would come in to provide security. Engineers would land to develop the site, first with hand tools and demolitions, and then, with helicopter-transportable power equipment including a remarkably useful and versatile mini-dozer. No two FSBs were exactly alike, either in Dewey Canyon, Taylor Common, or elsewhere, but typically an FSB would provide room for a battery of artillery (often a mixed battery of 105-mm. and 155-mm. howitzers and 4.2-inch mortars), an infantry battalion command post, a logistic support area, and an aid station. When perched on top of a mountain, these FSBs were easy to defend, seldom tying up more than a platoon of infantry.

initially developed FSBs Shiloh, Razor, and Riley, and then, as the regiment advanced, other FSBs were opened in leapfrog fashion. Enemy resistance began to stiffen on 2 February, with the heaviest fighting taking place between 18 and 22 February, involving the 1st Battalion, 9th Marines, in the center of line. Soon some of the largest caches of the war were being uncovered. By the time the operation ended on 19 March, the base area was cleaned out, at least for the time being. Enemy dead had been counted at 1,617, and 1,461 weapons and hundreds of tons of ammunition, equipment, and supplies had been taken.

There were two near-concurrent complementary operations. The 101st Airborne Division had moved into the A Shau valley on 22 February and commenced Massachusetts Striker. On 15 March, the 3d Marines, under Colonel Paul D. LaFond had begun Maine Crag south of Khe Sanh (where the Laotian border makes a curious loop, creating a salient). Maine Crag went on until 2 May. Not as spectacularly successful as Dewey Canyon, it nevertheless cost the enemy a considerable price in men, weapons, and rice.



Tet 1969

Tet 1969, when it came, was only a pale shadow of the violence of Tet 1968.[3] The 24-hour Tet truce began at 1800 on 16 February. There were the usual Tet season terrorist acts, rocket and mortar attacks, and scattered ground action. The enemy's major effort in ICTZ came on 23 February when he attempted, once again, a full-scale coordinated attack against Da Nang, a nut he had never been able to crack. His attack plan contained few surprises: as it had been during Tet 1968 and again in August 1968, the city was infiltrated, an attack was made up from the south through the heavily populated lowlands, and a thrust with major units came out of the mountains west of Da Nang.[4]

Shortly after midnight the enemy attempted to seize the two highway bridges which carry Route One over the Song Cau Do in Hoa Vang district south of Da Nang airfield. Infiltrators north of the river formed one prong of the attack while other columns emerged from the endemically Viet Cong hamlets south of the Cau Do. The attackers were met and roughly handled by the 1st Military Police Battalion and elements of 3d Battalion, 1st Marines, and by morning were on their way south again, pursued and harried by the ARVN and Colonel Robert G. Lauffer's 1st Marines.

Meanwhile, sappers had tried unsuccessfully to get to the command posts of the 1st Marine Division and 26th Marine regiment on the reverse slope of Hill 327, hoping apparently to disrupt command and control while their heavier columns debouched from the hills to the west and crossed the valley drained by the Tuy Loan river. This attempted crossing precipitated a three-day fight with Colonel Robert L. Nichols' 7th Marines which cost the enemy 289 killed.

Pacification and Rural Development

The Government of Vietnam's 1969 Pacification and Development Program began on 1 February, close on the heels of 1968's generally successful Le Loi or Accelerated Pacification Campaign.[5] As the 1969 program got underway, 86% of ICTZ populated area was considered to be under government control and 74% of the population was judged to be living in secure areas. The objective for the year was to bring all populated areas of the five provinces under Government of Viet-

[3] Tet 1968 is discussed in some detail in "Marine Corps Operations in Vietnam, 1968," *Naval Review, 1970*, pp. 298-302.

[4] This same attack pattern against Da Nang was tried during Tet 1968 and again in August 1968. *Naval Review 1970*, pp. 299 and 313-314.

[5] The Le Loi campaign had as its primary objective the mending of the damage done to pacification by the 1968 Tet offensive. *Naval Review 1970*, p. 318.

nam (GVN) control and to raise the security level of the population to 90%. There was also to be full-fledged recruitment for the People's Self Defense Force (PSDF). The idea behind PSDF was that, as security improved, the people would be armed for their own self-defense. The goal of ICTZ was 300,000 PSDF, only a fraction of whom, however, would be armed. The recruiting base was more urban than rural and the objectives more psychological than military.

Pacification plans tended to work well in the northern two provinces, Quang Tri and Thua Thien, where security was good and the population generally prosperous and pro-GVN; but not so well in the southern three provinces, Quang Nam, Quang Tin and Quang Ngai. Prime movers for the program were the Rural Development (RD) teams. There were not enough of these 59-man cadres to go around so the number of teams available was doubled by halving the size to 30 men and assigning to each team a Regional Force, Popular Force, or National Police Field Force[6] platoon to perform the security function. The 30-man RD teams could then concentrate on identifying Viet Cong infrastructure, establishing the People's Self Defense Force, starting self-help programs and organizing local elections. During the four successive Sundays in March, elections were held for village council members and hamlet chiefs. In ICTZ, 88% of the eligible voters turned out.

Of all the efforts by III Marine Amphibious Force to provide security to the rural areas and to assist in pacification, perhaps the most successful was the Combined Action Program. The building block for this program was the combining of a specially selected and trained Marine rifle squad with a Popular Force platoon so as to enhance hamlet and village security. From its beginnings in 1965 at Phu Bai,[7] the program by 1969 had grown to four battalion-sized Combined Action Groups, one each at Da Nang, Chu Lai, Phu Bai, and Quang Tri. Under the Groups were 19 Combined Action Companies and these in turn administered 102 Combined Action Platoons.

Nickerson for Cushman

On 26 March 1969, Lieutenant General Herman Nickerson, Jr., succeeded Lieutenant General Cushman as Commanding General, III Marine Amphibious Force. This was General Nickerson's second Vietnam tour. On his first tour he had commanded the 1st Marine Division from October 1966 until May 1967 and then had been Deputy Commander, III MAF, until October 1967. (General Cushman, after his return to the States, would become the Deputy Director of the Central Intelligence Agency, and, on 1 January 1972, the 25th Commandant of the Marine Corps.)

3d Marine Division Operations

Things had remained relatively quiet along the DMZ for the first three months of 1969. On 28 February the books had been closed on the long-term area operations, Kentucky and Scotland II—Kentucky being in the vicinity of Con Thien and Scotland II in the vicinity of Khe Sanh. In March, the USS *New Jersey* (BB-62) left the firing line for good. Since arriving at the end of September 1968, she had fired 3,615 16-inch shells and nearly 11,000 rounds of 5-inch, mostly in support of 3d Marine Division operations along the DMZ. Her departure was somewhat offset by the arrival of sufficient self-propelled 175-mm. guns, M107, to re-arm the three separate gun batteries which until now had been equipped with the aging 155-mm. gun, SP M53.[8]

Virginia Ridge

In April, in the central DMZ, the 36th Regiment, 308th NVA Division (not to be confused with the 36th Regiment, 4th Front, in Quang Nam province) replaced the battered 27th NVA Regiment. First contact with the fresh regiment was on 9 April northwest of Cam Lo. Action was sporadic until the 21st when the 9th Marines encountered heavy resistance between Cam Lo and the Rockpile. The operation was formalized as Virginia Ridge beginning 30 April.

The 3d Marine Division's second front continued to be the Laotian border, at right angles to the DMZ. Base Area 611 did not go long unattended. Passing control of Virginia Ridge to the 3d Marines, the 9th Marines, now commanded by Colonel Edward F. Danowitz, went back into the Da Krong valley with two battalions on 10 May in Operation Apache Snow, while to the south a brigade of the 101st Airborne and a regiment of the ARVN re-entered the A Shau. The Marine portion of the operation ended 31 May

[6]The U. S. AID-supported National Police, often disdainfully dismissed as the "white mice," had in fact by this time developed a significant constabulary capability.

[7]For the evolution of the Combined Action Program see "Marine Corps Operations in Vietnam, 1965–1966," *Naval Review*, 1968, pp. 25–26. Also *Naval Review*, 1969, p. 141, and *Naval Review*, 1970, p. 320.

[8]The 175-mm. M107 has now replaced the 155-mm. M53 as the Marine Corps' heavy gun. Range for its 147-pound shell is 32,700 meters as compared to the 95-pound 155-mm. shell with its range of 23,500 meters. Tube life was originally 300 rounds, this has now been improved to 1,200 rounds as compared to the M53's tube life of 700 rounds. The 175-mm. weighs a third less than the 155-mm.—62,100 pounds as opposed to 96,000. Nevertheless, both are big, cumbersome guns. Both, however, can be carried in LCUs and thus can travel in LSDs. They can also be loaded and unloaded across the stern gate of the new 1179-class LSTs.

with the commitment of the 2d and 3d Battalions of the 9th Marines to a new operation, Cameron Falls, against elements of the resurgent 304th NVA Division in the old familiar Khe Sanh salient south of Route 9. The Army and ARVN stayed in the A Shau another week, coming out on 7 June.

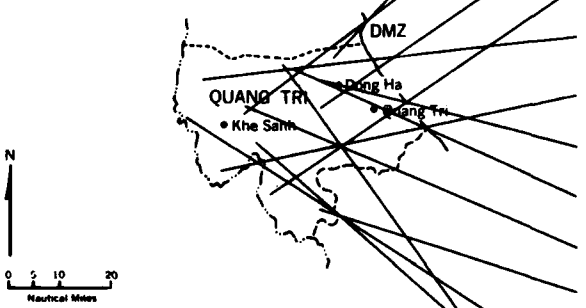
On 12 June, the 1st Battalion, 9th Marines teamed up with a task force from the 1st Brigade, 5th U. S. Mechanized Division, near Khe Sanh itself for Operation Utah Mesa. This operation was directed by Brigadier General Regan Fuller from his Task Force Hotel headquarters at Vandegrift Combat Base. It would be 1st Battalion, 9th Marines' last battle in the Vietnam War. On 23 June, the battalion (which had landed at Da Nang on 17 June 1965) moved to Vandegrift combat base to get ready for embarkation to Okinawa.

The first major troop withdrawal had been announced: 25,000 American servicemen were to be out of Vietnam by 31 August. Of these, 8,388 would be Marines. Scheduled to leave were the 9th Marines, along with proportional shares of combat support and service troops, and a slice of the 1st Marine Aircraft Wing. The 3d Marine Division would be left with the 3d and 4th Marine Regiments in Quang Tri province.

Air Operations

From the Wing, VMFA-334 departed with its F-4J McDonnell Phantoms for Iwakuni in Japan, and HMM-165, with its CH-46A helicopters, left for Futema on Okinawa. Both squadrons would be joined to MAG-15, air component of the 9th Marine Amphibious Brigade. Another August departure was the 1st LAAM Battalion, a light antiaircraft missile unit armed with the Hawk, which had been in-country since February 1965 without ever having to be called upon to fire against a live target. HMM-362 the last of the UH-34 squadrons in-country, also left in August but this was a rotation rather than a redeployment. The Marine Corps had begun the war with the UH-34 as it standard medium helicopter and the tough old birds had logged nearly a million combat sorties. HMM-362's place was taken by HMH-361 which brought up to three the number of squadrons equipped with the heavy CH-53s.

Earlier, in April, the first detachment of AH-1G Bell Cobras had arrived. These were the Army-model, single-engine, two-place helicopters armed with 7.62-mm. mini-guns and 40-mm. grenade launchers. Before the end of the year the Marines would have 24 Cobras



MAJOR 3d MARINE DIVISION OPERATIONS, 1969

KENTUCKY (1 Nov 67–28 Feb 69). Long-term area operation in vicinity of Con Thien. Total of 478 Marines killed, 2,698 wounded. Enemy casualties: 3,821 killed, 117 prisoners.

SCOTLAND II (15 Apr 68–28 Feb 69). Long-term area operation in vicinity of Khe Sanh. Marine casualties: 435 killed, 2,395 wounded. Enemy casualties: 3,304 killed, 64 prisoners.

DAWSON RIVER (28 Nov 68–27 Jan 69). Three Marines killed, 50 wounded. Enemy casualties: 86 dead.

DEWEY CANYON (22 Jan–19 Mar 69). Marine casualties: 121 killed, 803 wounded. Enemy casualties: 1,617 killed, four prisoners.

PURPLE MARTIN (27 Feb–8 May 69). Marine casualties: 79 killed, 268 wounded. Enemy casualties: 252 dead, four prisoners.

MAINE CRAG (15 Mar–2 May 69). Marine casualties: 17 killed, 104 wounded. Enemy casualties: 157 killed, three prisoners.

MONTANA MAULER (23 Mar–3 Apr 69). Joint USA-USMC operation. Total U. S. casualties: 34 killed, 218 wounded. Enemy casualties: 271 dead.

VIRGINIA RIDGE (30 Apr–16 Jul 69). Marine casualties: 106 killed, 475 wounded. Enemy casualties: 558 killed, 9 prisoners.

HERKIMER MOUNTAIN (9 May–16 Jul 69). Marine casualties: 21 killed, 216 wounded. Enemy casualties: 137 dead.

APACHE SNOW (10 May–7 Jun 69). Joint USA-USMC operation. Total U. S. casualties: 113 killed, 627 wounded. Enemy casualties: 753 dead, 4 prisoners.

CAMERON FALLS (29 May–23 Jun 69). Twenty-four Marines killed, 137 wounded. Enemy casualties: 120 killed, one prisoner.

UTAH MESA (12 Jun–9 Jul 69). Marine casualties: 19 killed, 101 wounded. Enemy casualties: 309 killed, 7 prisoners.

IDAHO CANYON (16 Jul–25 Sep 69). Marine casualties: 78 killed, 366 wounded. Enemy casualties: 565 killed, 5 prisoners.

Members of the 2d Battalion, 4th Marines, fire a round at night from their 81-mm. mortar during operations in 1969 in Quang Tri Province, just below the Demilitarized Zone. In 1972, well after the departure of the Marines, that province was invaded in force by North Vietnamese troops pouring across the Demilitarized Zone.

in-country, they would have flown over 20,000 missions, most of them as transport helicopter escorts or for close-in supporting fires, and would more than have proved their worth.

On 11 July 1969, Major General William G. Thrash relieved Major General Quilter as Commanding General, 1st Marine Aircraft Wing. The Wing at the time of the change in command had six aircraft groups with 26 flying squadrons and was operating from five major airfields. Farthest north was Provisional MAG-39 at Quang Tri with two CH-46 squadrons and VMO-6, a light observation squadron equipped with the UH-1E "Huey" and the fixed-wing OV-10A "Bronco." MAG-36 was at Phu Bai with three medium, one light, and one heavy helicopter squadron. MAG-16 was at Marble Mountain with a similar mix of three medium, one light, and one heavy helo squadron plus VMO-2.

From the big field at Da Nang, MAG-11 operated an F-4 squadron, two squadrons of A-6As, and VMCJ-1 with its mixed complement of long-legged reconnaissance aircraft. (In October the last of the old EF-10Bs, the durable "electronic whales," would be phased out in favor of an increasing number of EA-6As, the reconnaissance version of Grumman's highly successful A-6 Intruder.) MAG-12 and MAG-13 were both at Chu Lai, MAG 12 with three squadrons of A-4 Douglas Skyhawks and one squadron of A-6As and MAG-13 with four squadrons of F-4s. In all, as of mid-summer 1969, the Wing inventory totalled about 225 helicopters and 250 fixed wing aircraft.

1st Marine Division Operations

There was a visible sign of better times in Quang Nam province when, on 30 March, the 825-foot Seabee-constructed Liberty Bridge was opened across the Thu Bon river just south of Dai Loc. The bridge replaced a 60-ton pontoon ferry which the 1st Bridge Company had been operating since October 1967 when the monsoon flood had washed away an earlier bridge. The new bridge, designed to be monsoon-proof (but lacking sufficient length during periods of high water), completed a direct highway link between Da Nang and An Hoa.

The same day that the bridge was opened to traffic, Colonel Nichols' 7th Marines began Operation Oklahoma Hills up on Charlie Ridge, thought to be the base area of the 31st, 141st, and 368th NVA Regiments. Two battalions of the 51st ARVN Regiment cooperated with an attack northward against the ridge from Thuong Duc corridor. The scheme was to form a box around the suspected base area with an FSB roughly at each corner of the quadrangle. The Marines encountered few fire fights but many mines. A regimental-size base camp was found and destroyed.

There was some logistics bad luck on 27 April when a grass fire ignited in Ammunition Supply Point One, two miles southwest of Da Nang airfield. The whole ASP went up, 38,000 tons of ammunition, valued at approximately $75 million, was destroyed, along with 20,000 drums of fuel. This was about 40% of the Force Logistic Command's ammunition.

On 5 May, south of the 1st Marine Division's area of operations, below Hoi An, Special Landing Force Alpha—now made up of BLT 1/26 lifted by HMM 362—landed on "Barrier island" in an area boxed off on the land side by a cordon of ARVN, Korean Marine, and elements of the Americal Division. Barrier island, a sandy waste dotted with poverty-stricken fishing villages, had been swept repeatedly, but the Viet Cong presence was never completely eradicated. This operation was called Daring Rebel and the SLF stayed ashore 15 days. Like Bold Mariner, Daring Rebel was an amphibious application of the County Fair concept[9] and it proved once again the effectiveness of large-scale cordon-and-search operations in disrupting Viet Cong control. A substantial number of prisoners and significant amounts of rice and weapons were captured. Regrettably, the results were not permanent.

On 9 May, while Daring Rebel was rampaging on Barrier island, the 5th Marines, now commanded by William J. Zaro, intercepted a large enemy force attempting to cross the "Arizona territory." This familiar area was not only a much-traveled route for the enemy as he debouched from the mountains but also the site

[9]County Fair techniques are discussed in "Marine Corps Operations in Vietnam, 1965-1966," *Naval Review, 1968*, pp. 28-29.

of rice and corn "markets" from which he drew his sustenance. Surveillance of the Arizona required the continuing attention of at least a battalion. In this particular action the enemy seemed headed for Hill 67, a 7th Marines' combat base across the river. By 12 May, the focus of the fighting had shifted to the axis of Route 536 which runs from An Hoa to Liberty Bridge. Flight after flight of Marine air pounded the bewildered and pocketed enemy. For the three days fighting, the 5th Marines claimed a body count of 233; Colonel Zaro was certain in his own mind that enemy casualties were much higher.

An attack force next surfaced immediately south of Da Nang in the corridor formed by Highway One on the east and the railroad on the west. It was the old familiar attack route, leading to the Cau Do bridges and thence to Da Nang airfield. In a two-day battle, 12–13 May, the 1st Marines, the 51st ARVN Regiment, the 59th RF Battalion, and the 21st and 39th Ranger Battalions engaged the attackers and killed 292 of them.

Then, on 7 June, the 5th Marines made contact with the newly-arrived 90th NVA Regiment in the Arizona territory. In the next 11 days, 320 enemy dead were counted. After that, the sorely-mauled 90th NVA withdrew into the hills to regroup.

Pipestone Canyon

The 1st Marine Division had begun Operation Pipestone Canyon in the Go Noi island area on 26 May. Go Noi had been fought over before, most notably in Operations Allen Brook and Meade River.[10] It was the portion of the Ky Lam delta which lay between Route One on the east and the abandoned railroad on the west, roughly five miles long by two miles wide.

The objective of Pipestone Canyon was to rid it of the 36th NVA Regiment and to clear it once and for all. In terms of maneuver battalions involved and the complexity of the scheme of maneuver and fire support, it was probably the most significant 1st Marine Division operation in 1969.

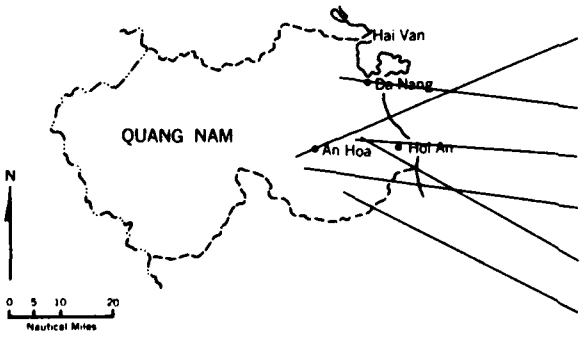
Four Marine battalions were used in coordination with the 37th and 39th Rangers, two battalions of the 51st ARVN Regiments, and a battalion of the Korean Marine Brigade. The "clearing" operations were literal: a U. S. Army engineer company with gigantic Rome plows followed behind the Marines, and the land was cleared and plowed under at the rate of 200 acres a day.

At this time, mid-summer 1969, the 26th Marines were west of Da Nang and the 1st Marines south of the airfield and Marble Mountain, the two regiments concentrating on saturation patrolling of the "Rocket Belt," the arc swung around Da Nang at the extreme range of the 122-mm. and 140-mm rockets. The 7th Marines had its command post on Hill 55, well south of Da Nang, and its operations fanned out from there. The 5th Marines was south of the Vu Gia and Thu Bon rivers operating from its combat base at An Hoa.

On 20 July, the 5th Marines began Operation Durham Peak, pushing up into the Que Son mountains south of An Hoa with three battalions. The 1st Battalion, 7th Marines, obligingly covered the Arizona for the absentee 5th Marines, and, on 12 August, ran into two battalions of the resurgent 90th NVA Regiment and a battalion of the 368B Rocket Regiment. A two-day fight ensued in which 255 North Vietnamese were killed at a cost of 20 Marines dead, 100 wounded and evacuated.

Durham Peak was brought to an end on 13 August. The boundary between the 1st Marine Division and the Americal Division was being shifted southward as of 20 August so as to give the Marines responsibility

[10] Allen Brook (4 May–24 August 1968) did much to pre-empt enemy attack efforts against Da Nang. *See* "Marine Corps Operations in Vietnam, 1968," *Naval Review, 1970*, p. 306. Meade River (20 November-9 December 1968) was an outstandingly successful application of County Fair techniques. *Ibid.* p. 318.



MAJOR 1ST MARINE DIVISION OPERATIONS, 1969

TAYLOR COMMON (7 Dec 68–8 Mar 69). TF Yankee operation. Total of 151 Marines killed, 1,324 wounded. Enemy casualties: 1,398 killed, 29 prisoners.

LINN RIVER (27 Jan–7 Feb 69). Nine Marines killed, 46 wounded. Enemy casualties: 58 dead, three prisoners.

OKLAHOMA HILLS (31 Maar–29 May 69). Marine casualties: 54 killed, 482 wounded. Enemy casualties: 596 dead, seven prisoners.

MUSKOGEE MEADOW (7–20 Apr 69). Marine casualties: 16 killed, 121 wounded. Enemy dead: 162.

PIPESTONE CANYON (26 May–7 Nov 69). Marine casualties: 54 killed, 540 wounded. Enemy casualties: 488 killed, 28 prisoners.

DURHAM PEAK (20 Jul–13 Aug 69). Marine casualties: 15 killed, 63 wounded. Enemy dead: 76.

Marines of B Company, 1st Battalion, 5th Marines, are engaged in a brief firefight with a North Vietnamese platoon in the "Arizona territory," four miles northwest of the An Hoa combat base, in January 1969.

for most of Que Son valley, first entered by them in December 1965[11]. This called for a major rearrangement of the respective areas of operation for the 5th and 7th Marines.

The geography of southern Quang Nam province requires some study if the problem facing the 1st Marine Division is to be understood. The Que Son mountains are a spur running from southwest to northeast toward Hoi An from the main mountain mass. Green, incredibly beautiful, with hundreds of sparkling streams and tumbling waterfalls, and honeycombed with thousands of caves, the mountains offered the Viet Cong and North Vietnamese a ready-made bastion from which to sally forth against the lowlands. The Que Sons, effectively, are the natural geographic boundary between Quang Nam and Quang Tin provinces, but the actual political boundary goes along the valley floor, following the trace of the Song Ly Ly, and this was the new boundary between the Americal and 1st Marine Divisions.

Near the head of Que Son valley (or the Nui Loc Son basin as it is also called) a number of streams come together to form the Song Thu Bon which then passes northward through the western Que Sons into Nong Son valley and then north through another cut into An Hoa basin. Two roads come off at right angles from Highway One into Que Son valley. The southern road, Route 534, starts at Thang Binh and, during the period under discussion, was in the Americal zone. The parallel northern road, Route 535, begins at the intersection of the Ly Ly with Highway One and goes just beyond Que Son district headquarters where it branches. Route 535 goes south and joins Route 534. The northern fork is Route 536. Unused by vehicles and degenerated into a foot path, Route 536 goes through a saddle in the Que Sons, then drops down into "Antenna" valley (no one seems to remember how it got that name) which in turn comes in at right angles to Nong Son valley.

The 7th Marines began moving into Que Son valley on 15 August, displacing the 196th Light Infantry Brigade. There were two major combat bases[12] to be taken over from the Army: LZ Baldy, at the intersection of Highway One and Route 535, and FSB Ross, west of Que Son village, where Route 536 forks off to the northwest. By the 18th, the 7th Marines had joined the 196th Brigade in a major fight outside Hiep Duc, another district headquarters, some 18 kilometers southwest of Ross. The enemy was the 2d NVA Division and, by the end of the month, the united Army and Marine effort had killed more than a thousand of them. Meanwhile, 3d Battalion, 7th Marines, operating from Baldy, had joined a Regional Force company in still another sweep of Barrier island.

3d Marine Division Redeploys

In the north, Colonel LaFond's 3d Marines had been continuing Operation Virginia Ridge in the central DMZ area. There had been a sharp action on 17 June near Gio Linh in which the 3d Battalion had killed 193 enemy at a cost of 18 Marines dead, 26 wounded and evacuated. Virginia Ridge was brought to a close on 16 July and succeeded by Idaho Canyon in the vicinity of Con Thien and the Rockpile. There was a last nasty fight above the Rockpile on 17 September in which 48 enemy dead were counted against a total of 25 Marines killed, 47 wounded, and the operation

[11]Operation Harvest Moon. *See* "Marine Corps Operations in Vietnam, 1965-1966," *Naval Review, 1968*, p. 26.

[12]Both Baldy and Ross had long since outgrown their original respective designations as a "landing zone" and a "fire support base." A landing zone, by definition, is simply a place where aircraft can land. In Vietnam it came to have the specific meaning of an improved landing site for helicopters. A fire support base, in the Vietnam context, usually meant an artillery battery position. Once, however, a location was labeled on "LZ" or "FSB" the appellation tended to stick, as in the case of Baldy which had grown into a full-fledged brigade or regimental-size combat base and Ross which easily accommodated a battalion.

was ended on 25 September. It was now time for the 3d Marines to stand-down and get ready to sail for home. The 4th Marines would not be far behind. The 1st Brigade, 5th U. S. Mechanized Division, would be left in Quang Tri province along with about half the 1st ARVN Division to guard the DMZ and the Laotian border approaches into ICTZ.

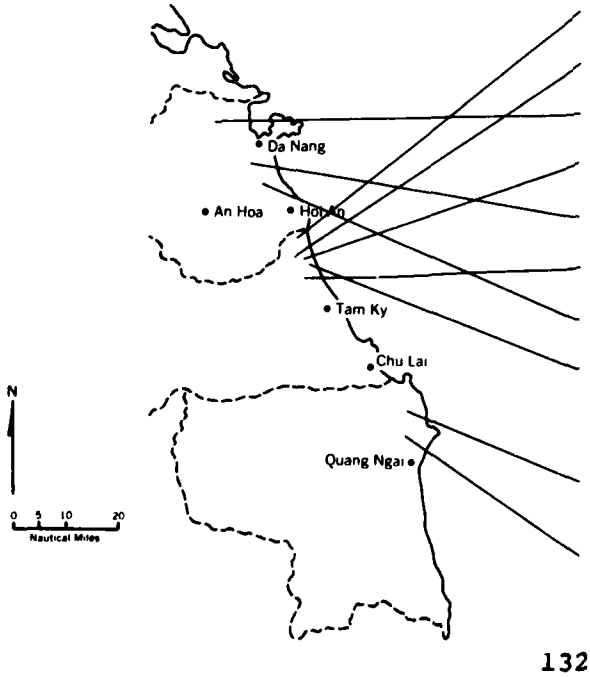
The second increment of the U. S. troop withdrawal had been announced on 16 September. Of a total of 45,000 Americans to be redeployed by mid-December, 18,483 would be Marines, essentially the rest of the 3d Division together with a proportional share of aviation and service units. Headquarters, 3d Marine Division, and the 4th Marines were to go to Okinawa; the 3d Marines to Camp Pendleton. For its 40 months of combat, 3d Marine Division could claim 28,216 enemy killed, 499 prisoners taken, and 9,626 weapons captured.

Major General William K. Jones, Commanding General of the 3d Division, left for Okinawa on 7 November where he would also be Commanding General, I Marine Expeditionary Force. I MEF, a counterpart of III MAF, was established to control those Fleet Marine Force air and ground elements in the Western Pacific that were not committed to Vietnam. Also on 7 November, 1st Marine Aircraft Wing (Rear) was activated at Iwakuni under command of Brigadier General William G. Johnson. Headquarters, MAG-36, under Colonel Noah C. New, was moved from Phu Bai to Futema on Okinawa where it would pick up control of the helicopter squadrons plus VMO-6 and the KC-130s of VMGR-152. Colonel Owen V. Gallentine's Provisional MAG-39 at Quang Tri was deactivated. VMA(AW)-533 took its A-6As from Chu Lai to Iwakuni where it joined MAG-15. HMM-265 went to Santa Ana with its CH-46s. HMM-164, another medium helicopter squadron, went to Okinawa along with HMH-462, a CH-53 squadron.

All helicopter squadrons remaining in Viet Nam were now under MAG-16, commanded by Colonel James P. Bruce, at Marble Mountain. For the time, three squadrons would continue to be based at Phu Bai, but responsibility for operating the airfields at Dong Ha, Quang Tri, and Phu Bai had been passed to the Army.

Special Landing Force Operations

During this time, as the III Marine Amphibious Force regrouped, combat operations continued at a low ebb. The enemy had reverted almost completely to guerrilla and terrorist activity. Most of the contact, such as it was, with main force units was in the area held by the 7th Marines, particularly in the Que Sons and in Antenna valley.



SPECIAL LANDING FORCE OPERATIONS, 1969

VALIANT HUNT (15 Dec 68-5 Jan 69). BLT 2/26 lifted by HMM-362. Three Marines killed, 19 wounded. Enemy casualties: 33 dead.

DEFIANT MEASURE (10-16 Feb 69). BLT 3/26 landed by HMM-164. Negative results.

EAGER PURSUIT (1-10 Mar 69). BLT 2/26 lifted by HMM-362. Five Marines killed, 60 wounded. Nine enemy killed, two taken prisoner.

DARING REBEL (5-20 May 69). BLT 1/26 lifted by HMM-362. Two Marines killed, 51 wounded. Total of 105 enemy killed, 73 prisoners.

GALLANT LEADER (23-25 May 69). BLT 1/26 landed by HMM-362. Negative results.

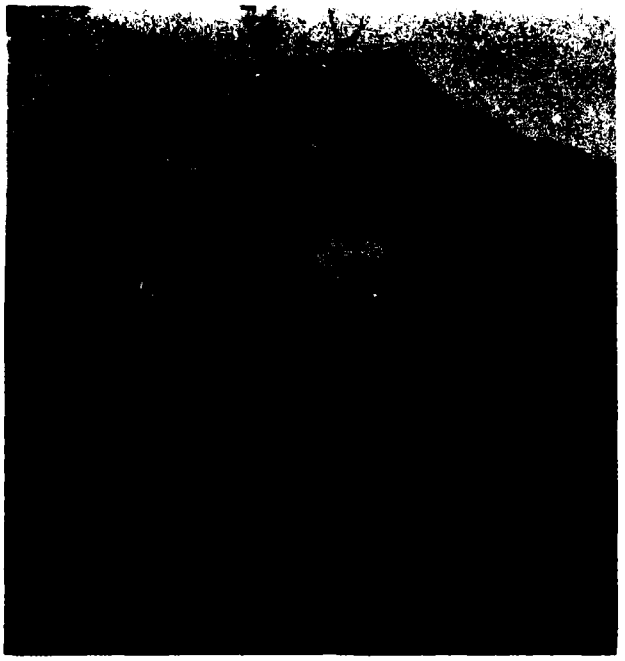
BOLD PURSUIT (27 Jun-6 Jul 69). BLT 1/26. Four Marines killed, 37 wounded. Enemy casualties: 42 killed, eight taken prisoner.

MIGHTY PLAY (10-20 Jul 69). BLT 1/26 landed by HMM-265. Two Marines killed, 28 wounded. Enemy casualties: 31 dead.

DEFIANT STAND (7-19 Sep 69). BLT 1/26 lifted by HMM-265. Combined operation with two battalions of 2d ROKMC Brigade. Four U. S. Marines killed, 49 wounded. Enemy casualties claimed by USMC: 244 killed, six prisoners. One ROK Marine killed, five wounded. Enemy casualties claimed by ROKMC: 49 killed.

BOLD MARINER (13 Jan 69-9 Feb 69). BLTs 2/26 and 3/26 landed on Batangan peninsula. Five Marines killed, 32 wounded. Enemy casualties: 60 killed, 26 taken prisoner.

BRAVE ARMADA (24 Jul-7 Aug 69). BLT 2/26 lifted by HMM-164. One Marine killed, 51 wounded. Enemy casualties: 11 killed, five taken prisoner.



On 21 April 1969, this Marine machine gunner and his assistant approached a shattered house from which they had been fired upon during Operations Oklahoma Hills in Quang Nam, the central province of the five in I Corps Tactical Zone.

Defiant Stand

On 7 September, BLT 1/26, lifted by HMM-265, landed south of Hoi An on Barrier island in what would be the last Special Landing Force operation of the war. Operation Defiant Stand was unique in that it was a combined landing with the Korean Marines. The 3d Battalion, 2d ROKMC Brigade, had established a blocking position across the island. BLT 1/26 had landed by helo on LZ Eagle and across Green Beach by landing craft, south of the blocking position, and had swept north, joining the 3d ROKMC Battalion. A provisional Korean Marine battalion landing team then landed on the north edge of the island and swept south against the combined U. S.-Korean blocking position which had faced about. In all, 293 enemy were killed, 121 weapons captured, 2,500 civilians processed—of whom 11 were classified as VCI. SLF Alpha re-embarked on 19 September and reverted to Pacific Command reserve. The ceiling strengths placed on the number of Marines in-country by the withdrawal plan were not an absolute bar to the future employment of the SLF Vietnam. If the situation had so required it could have been landed, and, in fact, in the next two years, did frequently cruise close to the coast so as to be ready if needed, but such an emergency never arose.

Since 1965, the Seventh Fleet had conducted 62 Special Landing Force operations against the Vietnamese coast. Of this number, 53 had been in I Corps.

The enemy never elected to do more than lightly harass a landing. There were no classic beach assaults, no great flaming battles fought at the water's edge.

On the other hand, the computer recorded that the landings had resulted in 6,527 enemy killed, 483 prisoners taken, and 774 weapons captured. The most successful operations had been those where the SLF had been used as a highly mobile and self-sufficient reserve with which to exploit opportunities developed by on-going, in-country operations. This was particularly true of the big battles fought by the 3d Marine Division along the DMZ in 1967 and 1968. Coastal operations, such as the repeated visits to Barrier island, helped keep these areas sanitized and rounded off the Navy's Market Time blockade of infiltration from the sea. Barrier island and Batangan peninsula, for example, with their Viet Cong-oriented fisherman populations were long-time transshipment points for supplies landed from the sea and then moved inland to mountain base areas. The SLF landings undoubtedly did much to dry this up.

Most important of all, perhaps, was that the landings not only kept the amphibious art alive, but also actually advanced it by providing testing and training in a combat environment. A large number of Marines and Navy men were exposed to the doctrine, procedures, and techniques of amphibious operations which they otherwise would have missed.

ICIPPs and CAPS

Once again it was monsoon season in I Corps. Pipestone Canyon which had begun on 26 May 1969, was brought to an end on 7 November 1969. One easily perceived result of the five-and-a-half-month effort to cleanse the Dodge City-Go Noi island area was that Route 4 was open to traffic, relatively free of harassment, from Hoi An to Dai Loc—and more venturesome types could proceed west from Dai Loc to Thuong Duc.

In November also, the 1st Marine Division had begun an augmentation of the Combined Action Program named, somewhat clumsily, the Infantry Company Intensive Pacification Program (ICIPP). Under the ICIPP concept, rifle companies (the Americal Division was pursuing a similar experiment) would be assigned the primary mission of pacification and deployed much like CAP units, the chief difference being that regular Marine rifle squads would be used, with a modicum of orientation, rather than specially selected and trained Combined Action Platoon squads. The program began with Company M, 1st Marines, sending squads into three contested hamlets near Hill 55, to be paired off, CAP fashion, with the local RFs and PFs.

The Combined Action Program itself had grown

during the year by another company headquarters and 13 platoons for a total investment of 1,710 Marines and 119 Navy corpsmen. During the year, the CAPs had made nearly 150,000 short-range patrols, three-quarters of them at night, and together with their PF and RF counterparts had killed 1,938 enemy, taken 425 prisoners, and captured 932 weapons.

On 15 December, Major General Edwin B. Wheeler, who, as a colonel, had commanded the 3d Marines when it first came into the country in 1965 and who had been back in Vietnam since June 1969, serving as Deputy Commanding General, XXIV Corps, succeeded Major General Simpson as commander of the 1st Marine Division.

Summing Up for 1969

Throughout I Corps, the pacification program seemed well on course. The year's goal of having 90% of the population secure was reached in October and the percentage was up to an estimated 94% at the end of the year.

Nearly 60,000 enemy dead had been counted in I Corps during 1969. American forces, Army and Marine, had submitted a total count of 30,803. The Vietnamese and Korean combined count was 27,440. In addition, 10,567 enemy had been captured or defected. These losses, unfortunately, were not reflected proportionately in the estimate of the enemy's remaining strength in ICTZ. At the end of the year, his strength was put at 77,000 in I Corps, of whom some 51,000 were considered combatants. The number of infantry battalions (more properly thought of as the equivalents of a rifle company) was believed to have grown from 89 to 97.

On the American side, troop withdrawals had changed not only the size but also the makeup of III Marine Amphibious Force. The year had begun with 79,844 Marines, 3,378 Navy, and 59,403 Army in III MAF. It ended with 54,541 Marines, 2,144 Navy, and 61,792 Army.

1970: The New Year

Shortly after midnight on 6 January 1970, about a hundred members of the 409th NVA Sapper Battalion, up from Quang Tin province, attacked FSB Ross, which was occupied chiefly by the headquarters of 1st Battalion, 7th Marines, two rifle companies, and two batteries of supporting artillery. It was a rainy night, in the dark of the moon, and three sapper teams got through the perimeter wire behind a barrage of about 250 rounds of mortar and RPG fire. Of the sappers, 38 were killed and three were captured. Marine losses amounted to 13 killed and 40 wounded and evacuated. There was a lesson there. Although the enemy more and more was avoiding large-scale engagements and limiting himself mostly to terrorist and harassing actions (the Tet surge when it came was minimal) he still had a capacity for nastiness.

The Government of Vietnam's 1970 Pacification and Development Plan had gotten underway officially on 1 January. The goal for the year was security for 100% of the population. A revised Hamlet Evaluation System, with more stringent criteria, had caused a statistical drop in I Corps security. Even so, by the end of January, 86% of the five provinces' 3,021,633 persons were living in hamlets considered secure. Of the remainder, 8% were in contested areas, 2% were in areas under Viet Cong control, and 4% were in hamlets or villages which were unrated.

The new system attempted to measure political, social, and economic gains as well as physical security. The dimensions measured by the new system, in addition to territorial security, included numbers of VCI neutralized, progress in the training and arming of the Peoples' Self Defense Force, progress in the development of local government, successes in the Chieu Hoi or "open arms" program for returnees, psychological operations, and a broad effort to provide a better life called "Prosperity for all."

In January also, Colonel Theodore E. Metzger, who had been the Director, Combined Action Program, was redesignated the Commanding Officer, Combined Action Force (CAF). Thus, the four Combined Action Groups were put under a regimental-equivalent headquarters. Colonel Metzger found it a much more effective organization, one that very profitably could have been established earlier.

The companion Infantry Company Intensive Pacification Program was given the more manageable title of Combined Unit Pacification Program, or CUPP. Company M, 1st Marines, had expanded its share of the program to eight hamlets around Hill 55. Company A, 7th Marines, had nine squads in place along Highway One from Ba Ren bridge south to Baldy and from Baldy west along Route 535 to Ross. Company K, 26th Marines, had six squads out in hamlets south and west of Nam O bridge, and Headquarters Company, 5th Marines, had three squads in hamlets along Route 4 west of Dai Loc. In all, then, the 1st Marine Division had 26 rifle squads, roughly two-thirds of a battalion, deployed as CUPPs.

Third U. S. Redeployment

Preparations for the Marines' share of the third increment of U. S. withdrawal also began in January. This time there was to be a reduction of 12,900 Marines

by 15 April 1970. The core of this reduction would be Colonel James E. Harrell's 26th Marines which had been operating west and north of Da Nang and which now would be going home to Camp Pendleton for deactivation. Among the reinforcing units which were also being redeployed was the 1st Antitank Battalion (the Ontos with its six 106-mm. recoilless rifles was fast nearing the end of its service life and the possibility of the enemy using armor was increasingly remote), the 1st Tank Battalion (less one company of M-48 medium tanks which would remain in-country), the 3d Amphibian Tractor Battalion (six LVTH-6 tractors mounting 105-mm. howitzers would stay behind), and the 1st Shore Party Battalion (less one company which would remain, chiefly to work helicopter landing zones).

This redeployment took out most of the tracked vehicles remaining to the 1st Marine Division and this recognized that they had little role to play in the low-intensity combat of Quang Nam province. The remaining tanks and the 105-mm. howitzer amphibians were mainly for the support of the Korean brigade who liked them and whose sandy area of operations between Marble Mountain and Hoi An was well-suited to tracked vehicle operation. Departure of the Shore Party Battalion and the Amphibian Tractor Battalion underscored how far the Division had moved from its original amphibious configuration and mission. The Tractor Battalion's LVTP-5s were also nearing the end of their service life, having been in the Marine Corps' inventory nearly 20 years. Early in the war they had been used experimentally as substitutes for armored personnel carriers. This had proved too dangerous; their soft underbellies made them easy prey for mines. They had then settled down to a useful life as cargo-carriers; they could swim and they were good at crossing sand and mud. At home, their successor, the LVTP-7, was beginning to come off the assembly lines.

Four tactical squadrons—one of them a helo squadron, the other three fixed-wing—left the country as part of the third increment. VMA-223 with its A-4Es and VMFA-542 with its F-4Bs flight-ferried home to El Toro. HMH-361 embarked its CH-53s in the USS *Tripoli* (LPH-10) and went to Santa Ana. MAG-12's headquarters, commanded by Colonel James R. Weaver, and VMA-211 with its A-4Es went to Iwakuni.

This left the 1st Marine Aircraft Wing with three operating groups. MAG-11 at Da Nang had VMCJ-1, two A-6A squadrons—VMA(AW)-225 and VMA(AW)-242—and VMO-2 with its OV-10As. MAG-13 at Chu Lai had VMA-311 and three F-4B squadrons—VMFA-115, VMFA-122, and VMFA-314. The last two medium helicopter squadrons at Phu Bai had come down to Marble Mountain Air Facility so that MAG-16 had at that field four medium squadrons equipped with the CH-46D, one heavy squadron with the CH-53, a light squadron with UH-1Es, and another light squadron with AH-1Gs. In all, the Wing had about 170 fixed-wing and 210 helicopters after the deployments were completed. The Wing also continued to operate Air Support Radar Teams (ASRTs) at five sites: Quang Tri, FSB Birmingham in Thua Thien province, Da Nang, An Hoa, and Chu Lai. These ASRTs provided a radar bombing system, incorporating ground-controlled flight path guidance and weapons release, which ensured all weather direct air support coverage throughout ICTZ.

A Navy departure in the third increment was the USS *Repose* (AH-16), near and dear to the Marines. She had come on-station 16 February 1966 with her 560-bed hospital. She left on 13 March 1970 for home and deactivation. In her nearly four years in Vietnamese waters, she had admitted nearly 25,000 patients, mostly Marines, of whom close to 10,000 had been battle casualties. Many of the rest had had malaria or fevers of undetermined origin.

Command Changes

At its peak in 1968, before the redeployments had begun, III Marine Amphibious Force had included two Marine divisions plus two Marine regimental landing teams, a very large Marine aircraft wing, a large Force Logistics Command, a U. S. Army corps headquarters, three Army divisions, and an Army mechanized infantry brigade. After the redeployment of the 3d Marine Division, the Army, not the Marine Corps, was the dominant U. S. service, in numbers, in I Corps. The third increment redeployments further increased the disparity in size between the Army and Marine Corps components.

In recognition of this, on 9 March 1970, upon the detachment of Lieutenant General Nickerson as Commanding General, III Marine Amphibious Force, the roles of XXIV Corps and III MAF were reversed, with XXIV Corps becoming the senior U. S. command in ICTZ and picking up most of the functions which hitherto had been performed by III MAF. Lieutenant General Melvin Zais, U. S. Army, moved his Corps headquarters from Phu Bai to the old III MAF compound at Camp Horn, and Lieutenant General Keith B. McCutcheon, the new commanding general of III MAF, in turn, moved to Camp Haskins on Red Beach. This would be a second Vietnam tour for General McCutcheon.[13] From June 1965 until June 1966 he

[13] Lieutenant General Keith B. McCutcheon's "Marine Aviation in Vietnam, 1962-1970," appears in *Naval Review*, 1971.

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had served as Commanding General, 1st Marine Aircraft Wing and Deputy Commander, III Marine Amphibious Force.

III MAF would continue as a separate service command under MACV but for operations in ICTZ it was essentially a division-wing team, under the operational control of XXIV Corps, with its area of responsibility limited to Quang Nam province. In the air, the 1st Marine Aircraft Wing would continue to roam farther afield with its fixed-wing aircraft, strike and reconnaissance operations continuing under the single managership of the Seventh Air Force.[14] For the time, also, MAG-13 would continue to be based at Chu Lai.

A Smaller Battlefield

The actual TAOR, or tactical area of responsibility, assigned III MAF included not only Quang Nam province but also a slice of Thua Thien province on the north, so as to include all of Hai Van pass, and a bit of Quang Tin province in the south in Que Son valley. The total area was 1,054 square miles. In the TAOR lived an estimated 970,000 people including 418,000 in Da Nang. Most of the rest in the coastal lowlands or river valleys, with a very few—Montagnards—in the mountains.

Redeployment of RLT-26 had brought the 1st Marine Division down to a more normal configuration and strength. It had its three organic infantry regiments, the 1st, 5th, and 7th Marines; its artillery regiment, the 11th Marines; and the usual combat support and combat service support battalions. It had been somewhat denuded, as described earlier, of its amphibious capability but had been beefed-up with extra engineers, artillery, and motor transport. Strength was about 21,000 Marines and 1,200 Navy men.

The Division's over-riding mission continued to be that of providing a shield for the populated area of Quang Nam province, which meant keeping the North Vietnamese forces at arm's length from Da Nang. The Division had no responsibility for the Da Nang vital zone itself. This responsibility continued to be discharged by III MAF, primarily through the 1st Military Police Battalion as airfield base defense force and by coordination of all the myriad Free World Military Force tenants in the Da Nang area.[15]

The Division's responsibility picked up at the boundary of the Da Nang vital zone. The Division's dispositions were roughly a series of concentric circles. First, there were the Northern and Southern Sector Defense Commands, forming a belt extending from the Cau Do bridges clockwise around to the Force Logistic Command at Red Beach. The spine for this defense was the high ground, beginning with Hill 327, called "Division Ridge," a 12-kilometer ridgeline which offered almost the school solution to defending the western approaches to Da Nang. This high ground had first been occupied by the Marines when they came in-country in March 1965, and, although it had been probed by the enemy, it had never been seriously threatened. The ridgeline's defenders came primarily from Division headquarters and service units. Located at Hill 34 within the Southern Sector was the base camp of the 1st Battalion, 5th Marines, which had been designated as the Division reserve. During the spring and summer of 1970, its most important contribution was in Pacifier operations, quick-response helicopter operations of platoon or company size. The Pacifier "package" was used on an average of four times a week against pre-planned or immediate targets.

The next ring beyond the Defense Sectors was the so-called Rocket Belt. With the departure of the 26th Marines, the 1st Marines had the whole belt. This meant drawing in a little tighter towards Da Nang. The 1st Marines turned over their old CP on Hill 55 (which had been a Marine regimental command post since being occupied by the 9th Marines in the spring of 1966) to the 51st ARVN Regiment and moved to the CP vacated by the 26th Marines close to the Division headquarters.

South of the 1st Marines, the Korean Marine Brigade continued to hold sway in its own TAOR, almost autonomous in its operations although "operational guidance" by III MAF continued. West of the ROK Marines and southwest of the 1st Marines, the 5th Marines, (less the 1st Battalion), with its CP and combat base at An Hoa, continued to cover the Arizona territory and the Thuong Duc corridor. And finally, the 7th Marines, with its CP at Baldy, continued to work its battalions in the Que Sons and Que Son valley. (There was a ground attack against Que Son district headquarters, a mile and a half from FSB Ross, early on the morning of 6 May. Marines from 2d Battalion, 7th Marines, counterattacked and drove out the attackers, killing 40.)

Major General Wheeler broke his leg in a helicopter crash on 18 April. The new Division commander, who arrived on 27 April, was Major General Charles F. Widdecke. He had won the Navy Cross on Guam and had commanded the 5th Marines when it first came in-country in 1966.

Go Noi Resettlement

In March 1970, the Quang Nam province chief announced the government's intention to resettle the

[14] *Ibid*, pp. 136-138. *See also* "Marine Corps Operations in Vietnam, 1968," *Naval Review, 1970*, pp. 302-303.

[15] The problems of air base defense are discussed in "Marine Corps Operations in Vietnam, 1965-1966," *Naval Review, 1968*, p. 19.

Go Noi island area. It was believed that the rich alluvial soil, which had once been planted in mulberries for silkworm culture, would support a market garden economy. The plan called for housing 17,000 refugees in three hamlets before the beginning of the fall monsoon. The area actually lay in the Korean TAOR and security was to be provided by the Koreans, the ARVN, and the RF and PF. General Zais asked the 1st Marine Division to assist in getting things going. General Widdecke, in turn, assigned the project to his ADC, Brigadier General William F. Doehler. Execution got underway in late May. By 25 June, Marine engineers had opened a road from Highway One and put a 346-foot pontoon bridge across the Song Chiem Son. The Marine contribution was essentially complete by the first week in August. Eight kilometers of road had been pioneered, two defensive compounds had been built, and a portable saw mill had been set up which cut a quarter-million usable feet of lumber for housing from salvaged dunnage. Meanwhile, the Seabees had improvised a 440-foot permanent bridge from surplus components.

On 11 June, not very far from Go Noi, the Viet Cong struck at Thanh My on the south side of Ba Ren bridge. Behind a curtain of 200 rounds of mortar fire, two companies of sappers came into the hamlet, shooting, throwing grenades, and dropping satchel charges into the villagers' bunkers. Defending the hamlet was a mixed bag of RF, PF, PSDF, RD cadres, and National Police, plus a Marine CUPP.[16] Two more CUPP squads arrived as reinforcements but before the attackers could be driven out, 300 houses had been destroyed. In addition to three Vietnamese combatants being killed and 19 wounded, 74 civilians lost their lives and 63 more men were wounded. Marine losses were one killed and 10 wounded.

On 28 June, province council elections were held and in Quang Nam there was an 83% turn-out of eligible voters. Municipal council elections were conducted in Da Nang the same day with a 73% turn-out. This was taken as an indicator of increasing government effectiveness.

The Force Logistic Command turned over the Hoa Khanh Children's Hospital to the World Relief Commission on 30 June. The 120-bed hospital, beautifully designed and of masonry and tile construction, was probably the finest children's hospital outside of Saigon. Built near Red Beach within the Camp Brooks perimeter, the hospital was FLC's principal civic action project and had cost $300,000 in donations and countless hours of volunteer work.

On 2 July, President Thieu, with the objective of improving unity of command and territorial security, announced that henceforth the Corps Tactical Zones would no longer necessarily be tied to provincial boundaries, and the RF and PF would become part of the Army of Vietnam. I Corps Tactical Zone became Military Region 1 and, in Quang Nam province, the province chief was given greater responsibility for territorial security. In addition to these changes, the Civilian Irregular Defense Groups at Thuong Duc and Nong Son were to be reorganized into Ranger Border Defense Battalions.

[16] In microcosm, Thanh My illustrates the command and control problems of the Vietnam War, wherein cooperation had to be substituted for unity of command.

Summer Offensive

General Lam, knowing that further U. S. troop withdrawals from Military Region 1 were imminent, gave much thought in the early summer months of 1970 to what might well be the last large-scale combined offensive in his military region. With the concurrence and support of Lieutenant General James W. Sutherland, Jr., U. S. Army (who on 18 June had succeeded Lieutenant General Zais as CG XXIV Corps) General Lam decided upon a generally westward attack on a broad front throughout Military Region 1 into the enemy's base areas. In Quang Nam province he had the 51st ARVN Regiment, his Ranger Group, and, temporarily, the 258th Vietnamese Marine Brigade, which was fresh from successes in Cambodia. The Vietnamese Marines were veterans of much fighting in the deltas in the south but new to the mountains of the northern provinces. General Lam launched his attack on 6 July. The 51st ARVN Regiment sent its battalions into Base Area 127 on Charlie Ridge above Thuong Duc. The 258th Vietnamese Marine Brigade and the Ranger Group were helo-lifted into the western edges of Base Area 112, the mountains drained by the Song Cai, west and southwest of Thuong Duc.

Pickens Forest

Colonel Edmund G. Derning's 7th Marines, with two battalions, followed behind Lam's westward thrust in a supporting operation, Pickens Forest. The 7th Marines were going into the western and southern part of Base Area 112 with the expectation of disrupting the enemy's logistics flow. Some 1,500 enemy were thought to be in the objective area, members mostly of the 38th NVA Regiment, the 577th Rocket Battalion, and the 490th Sapper Battalion. Beginning at 0730 on 16 July, Derning, with a regimental command group, a rifle company, and a 105-mm. battery, entered the Song Thu Bon valley south of Nong Son and set up FSB Defiant. The same day, the 1st and 2d Battalions went into Fire Support Bases Mace and Dart in the mountains to the west and began their company-size

sweeps. On 9 August, the 2d Battalion made a long jump westward to FSB Hatchet above the Song Cai. Pickens Forest ended on 24 August. Contact was limited, but the 7th Marines had found a sizable number of caches of weapons and supplies.

Fourth U. S. Redeployment

On 20 April 1970, President Nixon announced a 150,000 reduction in U. S. authorized troop strength to be accomplished by 1 May 1971. A total of 41,800 of these reductions were to be Marines. The original plan was for III MAF to reduce 18,600 Marines by 15 October 1970 (Increment IV), another 10,600 by 1 January 1971 (Increment V), and the remaining 12,600 by the deadline of 1 May (Increment VI). That would clear out all Fleet Marine Force Marines from Vietnam. The Marines planned to organize the 12,600 who were to stay until May into a Marine Amphibious Brigade with an activation day fairly soon after 15 October.

The principal ground unit scheduled to leave in the fourth increment was the 7th Marines, now commanded by Colonel Robert H. Piehl. This meant that after 15 October two Marine regiments in Quang Nam province would have to do what four Marine regiments had been doing prior to April. This recognized, of course, that the enemy had been greatly weakened and the ARVN was growing progressively stronger.

Imperial Lake

But, before the 7th Marines left, it would begin one more named operation. Between 0702 and 0928 on 31 August, attack aircraft of the 1st Marine Aircraft Wing delivered 77 tons of ordnance, mostly 1,000-pound bombs and napalm, into the Que Sons in 27 sorties. This followed an all-night drumfire artillery preparation in which Colonel Edwin M. Rudzis' 11th Marines had shot 13,000 rounds into the target area. The 2d Battalion, 7th Marines, then was helo-lifted into a ring of landing zones which had been quietly reconnoitered by the 1st Reconnaissance Battalion. Imperial Lake would keep the Que Sons neutralized for the remainder of the 1st Marine Division's stay in Vietnam. It also would yield some spectacular intelligence finds as to the Viet Cong infrastructure in Quang Nam province.

Catawba Falls

The 7th Marines operations in Pickens Forest had developed some inviting fixes as to the location of the 38th NVA Regiment in the rugged country west of Nong Son. Colonel Clark V. Judge, commanding the 5th Marines, recommended an attack with his regiment against the 38th. There was a complication in that the stand-down of the 7th Marines began on 7 September and the 5th Marines were scheduled to move into their vacated area of operations on 21 September.

The Division order for Catawba Falls resembled that for Imperial Lake. It called for a two-phase operation; first a heavy air and artillery attack by fire beginning 18 September, and then an infantry assault by the 5th Marines on 21 September. A composite battery of 105s and 155s was lifted up onto FSB Dagger, a spectacular flat-topped peak 1,031 meters high, called Ban Co by the Vietnamese. In the three-day attack by fire, 11,346 artillery rounds were shot and 141 tons of bombs dropped. Then, on 21 September, the 2d and 3d Battalions of the 5th Marines boarded their helicopters, leaving An Hoa, Hill 65, and Hill 37, but not for Catawba Falls. The second part of the operation had been a ruse, deliberately leaked to get an enemy reaction. The 5th Marines moved, not west to Dagger but southeast to Baldy and Ross, to take up positions vacated by the 7th Marines. Meanwhile the 38th NVA Regiment's base area was being given a final pounding by five B-52 strikes. Later intelligence indicated that the 38th Regiment had been numbed by the unexpected ferocity of the attack by fire and bewildered by the failure of the expected infantry assault to materialize.

Change in Redeployment Plans

Meanwhile, with Increment IV redeployments fairly well underway, it was learned that available Army manpower could not support the originally planned Army troop level in Vietnam and Marine redeployments would have to be stretched out. The Marines who were scheduled to leave in Increment V, that is, from 15 October until 1 January, now were to stay until Increment VI, from 1 January until 30 April 1971. The brigade would then be formed of the residue and there was no firm decision on how long it would remain in-country, perhaps it would be out by 1 July 1971, perhaps it would be staying longer.

All of this caused a last minute reshuffling of units as III MAF geared itself for a longer stay in-country than planned. The actual number of Marines to be reduced by 15 October was changed to 17,021. By the time these decisions were reached it was already too late to modify the departure of some of the heavier support units. On 22 August, the last two Force Engineer Battalions, the 9th and most of the 7th, had begun embarkation. This left the Marines with the 1st Engineer Battalion organic to the 1st Marine Division and Company A, 7th Engineers, in general support of III MAF. Increment IV also saw the departure of the last battery of 175-mm. guns and the last company of tanks.

Aviation Changes

On the aviation side, Major General Alan J. Arm-

Members of the 1st Marine Division at a fire support base watch a CH-53 helicopter as the big aircraft brings in more supplies for the troops, in September 1970.

strong had replaced Major General William G. Thrash as Wing commander on 1 July 1970. VCMJ-1, the composite reconnaissance and electronic countermeasures squadron, had stood down at the beginning of July, having flown some 14,500 combat sorties, many of them out of country, since 1965. Its new base would be Iwakuni, Japan. VMA-311 moved up from Chu Lai to Da Nang with its A-4s, transferring from MAG-13 *to MAG-11. HMM-161* departed in August with its CH-46s for Santa Ana. VMFAs 122 and 314 left in September with their F-4s for Kaneohe and El Toro. VMA(AW)-242 departed the same month with its A-6s for El Toro. By October, Colonel Lawrence J. Stein's MAG-13 was left at Chu Lai with no operating squadrons. The base was turned over to the U. S. Army and the MAG headquarters redeployed to El Toro. In ten months, 16 Marine tactical squadrons had left country. Remaining in Vietnam were two groups: Colonel Lewis C. Street's MAG-16 at Marble Mountain with about 150 helicopters and Colonel Albert C. Pommerenk's MAG-11 at Da Nang with about 80 fixed-wing aircraft.

Ever since arriving in Vietnam in 1965, Marine infantry and helicopters had been combined into various quick reaction "packages." Sparrow Hawk, Bald Eagle, and Pacifier were all variants on the same theme. The standard helicopter package in early 1970 was four transport helos and two gunships on 24-hour call at Marble Mountain, a 30-minute standby from 0700 to 1830, and a one-hour standby at night. When the 5th Marines moved to Baldy they were given a helicopter package of six CH-46s, four Cobras, and one UH-1E, all of which could get in the air in a matter of minutes. "Pacifier" was dropped as a designator, but Quick Reaction Force rapidly became QRF pronounced "Querf." The old package of four transports and two gunships continued to be maintained at Marble Mountain for the 1st Marines. Both would get much use against the small, elusive, and transitory targets that characterized the waning war in Quang Nam province.

Profitable close air support missions in support of the 1st Marine Division were becoming increasingly scarce, but MAG-11's attack and fighter aircraft still had their share of the war. Marine F-4s continued to fly combat air patrols over Laos in support of the 7th Air Force and over the Gulf of Tonkin for Task Force 77 of the Seventh Fleet. Marine A-6s, because of their all-weather capability, were a great favorite of the Seventh Air Force for targeting against "movers"—NVA trucks on their way south along the Ho Chi Minh road complex in Laos. Both the F-4s and the A-4s were also used for interdiction missions in Laos, particularly against the choke points offered by the passes at Mu Gia, Ban Karai, and Ban Raving.

Combined Action Program Reduced

The Increment IV redeployments had brought about a drastic constriction in the Combined Action Program. The 4th CAG, headquartered at Quang Tri, was disestablished in July. By the end of August, 1st CAG in Quang Tin and Quang Ngai provinces and 3d CAG in Thua Thien province also had been deactivated. On 1 September, operational control of the Combined Action Force, which had gone to XXIV Corps on 26 March, reverted to III MAF control. Scope of operations was now down to 2d CAG in Quang Nam province with six companies and 38 platoons. On 21 September, Colonel Ralph F. Estey's Combined Action Force headquarters was dissolved.

There were also rearrangements in the complementary CUPP program. With the 7th Marines going home, the 5th Marines picked up its CUPP mission, replacing Company A, 7th Marines, with Company G, 5th Marines, along the road from Ba Ren Bridge to Baldy to Ross. Actually, over 50% of 7th Regiment's CUPP Marines, as individuals, stayed in place, simply being transferred from the 7th Marines to the 5th Marines. (As with all the redeployments, there was a "mixmaster" of personnel in accordance with redeploy-

ment criteria. This assured equity insofar as individual tour lengths went but played hob with unit integrity.)

To fill in behind the two battalions of the 5th Marines which had gone south to Baldy and Ross, the area of operations for Colonel Paul X. Kelley's 1st Marines was extended to include Charlie Ridge, Hill 37 at Dai Loc, and Hill 65 in the Thuong Duc corridor. Company M, 1st Marines, stayed in place with its CUPPs near Hill 55 but operational control reverted from the 5th Marines to the 1st Marines, Company M getting back to its parent regiment after a lapse of nearly a year. The 1st Marines also picked up the three CUPPs west of Dai Loc from the 5th Marines.

Typhoon Kate

Elements of the 51st ARVN Regiment were to take over at An Hoa from the 5th Marines. They did not immediately arrive. Besides, the ARVN wanted only a quarter of the sprawling combat base and, according to the rules then applying to the disposal of facilities, the rest of the base had to be dismantled completely. The work at An Hoa soaked up a good portion of the remaining engineer capability. The monsoon rains had begun, the ground was bull-dozed into a sea of red mud, and the engineers barely got their heavy equipment out before the rains made the road and Liberty Bridge impassable.

The October rains came to a climax with Typhoon Kate which caused Quang Nam to have its worst floods since 1964. From the Cau Do river south to Baldy and as far west as Thuong Duc was almost an uninterrupted lake. Most of Routes 1 and 4 were under three feet or more of water. The wooden-piling "London Bridge" just north of Dai Loc on Route 540 was badly damaged. Liberty Bridge proved virtually monsoon-proof, but there was as much as 25 feet of water over its decking. The 1st Wing's helicopters, assisted by Division units, particularly the 1st Reconnaissance Battalion, evacuated perhaps 30,000 civilians to safety. The Quang Nam province chief later estimated that as many as 10,000 Vietnamese might have perished if it had not been for the American rescue effort.

The floods probably hurt the enemy in Quang Nam more than they did the government. His supply lines were disrupted. Many of his rice caches were flooded and spoiled. There was much evidence of low morale. Marines working in the Que Sons in Imperial Lake began finding increasing numbers of unburied bodies and unprotected caches of food, equipment, and documents.

Hoang Dieu

The effects of the monsoon were in addition to the results General Lam was getting with Operation Hoang Dieu. After bringing the 51st ARVN Regiment and the Ranger Group back from their foray into the enemy base area, Lam concentrated them, along with his Regional and Popular Forces, in a lowlands saturation campaign which had as its objective the systematic search of every hamlet in Quang Nam province for VCI. Virtually all of the 1st Marine Division's efforts, other than Imperial Lake and deep reconnaissance, were dedicated to the support of Lam's operation which began on 22 September. By the time Hoang Dieu ended on 30 November, there was a total count of 1,180 enemy killed, 200 weapons captured. General Lam then began Hoang Dieu 101 which the Marines joined on 17 December.

1971: The Final Year

III MAF had celebrated the 195th birthday of the Corps on 10 November with a tremendous pageant staged in one of the hangars on the west side of Da Nang airbase. Lieutenant General McCutcheon had been nominated by the President for a fourth star and to succeed General Walt as Assistant Commandant of the Marine Corps on 1 February 1971.

Then, on 11 December, General McCutcheon, who had been feeling unwell since about the time of the Marine Corps Birthday, returned to his headquarters from on board the USS *Sanctuary*, where some exhaustive tests had been taken. He called together the general officers assigned to III MAF and told them he was leaving on 13 December for hospitalization at Bethesda. His plane left at 0755 on Sunday. It was a fine bright morning with a fresh breeze blowing. General McCutcheon had asked that there be no departure ceremony, but there was no preventing a spontaneous, sincere send-off. Always slight, he looked gaunt and tired as he shook hands and said good-bye.[17]

Donn J. Robertson, who had commanded the 1st Marine Division in 1967 and 1968 and who was now the Director of the Marine Corps Reserve, was quickly promoted to lieutenant general and moved to the Western Pacific, arriving in Da Nang on 23 December and assuming command of III MAF the next day.

The level and intensity of ground combat for the 1st Marine Division, even after allowing for the reduced strength of the Division, had declined almost as a straight-line progression during 1970. Of the 403 members of the Division killed in 1970, 283 had died in the first six months of the year. Similarly, of the 3,625 men wounded during 1970, 2,537 were hit during the first six months. The 1970 casualties, 403 killed

[17] Keith Barr McCutcheon, one of the Marine Corps' most distinguished aviators, was placed on the retired list with the rank of four-star general on 1 July 1971, and died of cancer 13 July 1971

and 3,625 wounded, in turn were less than half the 1969 casualties, 1,051 killed and 9,286 wounded.

The enemy had also lost fewer men. The Division claimed 9,643 killed in 1969, 5,225 killed in 1970. Enemy strength in Quang Nam province had declined, by Division estimates, from 15,500 in January 1969 to 8,325 in January 1971.

Division artillery, with 174 tubes in January 1969, fired 178,200 rounds (and a total of 2,017,700 rounds for the year) as compared to 35,400 rounds from 74 tubes in January 1971 (and a total of 1,333,000 rounds for 1970).

Quang Da Special Zone

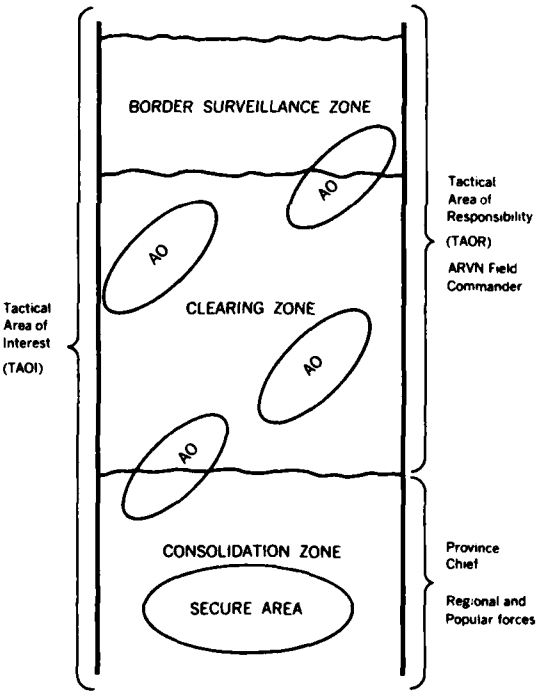
On the Vietnamese side, the ARVN forces in Quang Nam province needed, but never had, a division-equivalent headquarters to direct their action, a need the Marines had perceived as soon as they entered ground combat in the province in 1965. While I Corps headquarters never really did relinquish operational control of ARVN units in Quang Nam province, a headquarters called Quang Da Special Zone (pairing off with Da Nang Special Zone and somewhat confusing because the Viet Cong also called *their* headquarters Quang Da Special Zone or Sector) had come into being, which, while not adequately staffed to perform division-level command and control, did exert coordinating control over assigned ARVN units. Nurtured by III MAF, and most particularly by 1st Marine Division, combined weekly conferences were held by the commanders of Quang Da Special Zone, 2d ROKMC Brigade, and 1st Marine Division, at which agenda items of mutual interest were considered. These conferences were paralleled by combined staff action.

Quang Da Special Zone suffered a notable setback in August when its commander, the highly-capable and well-liked Colonel Nguyen Van Thien, was killed in an air crash on his way to Saigon to receive his star as a brigadier general. Then, on 1 January 1971, Quang Da Special Zone was redesignated the 1st Mobile Task Force and given clear-cut operational control of the 51st Regiment, the 1st Ranger Group (21st, 37th, and 39th Battalions), a squadron of the 1st Armored Brigade, and the 78th and 79th Border Ranger Defense Battalions (successors to the CIDGs at Thuong Duc and Nong Son).

Campaign Plan 1971

The great change in the Combined Campaign Plan for 1971 was the conceptual one that substituted "tactical areas of *interest*" (TAOI) for "tactical areas of *responsibility*."[18] Henceforth, TAOIs, not TAORs, normally would be assigned to the Free World military assistance forces (FWMAF). The essential difference between a TAOI and a TAOR was that the commander was not charged with primary tactical responsibility and was not expected to conduct operations throughout the TAOI on a continuing basis. Instead he would have an "area of operation" (AO) for a specific operation for a specific period of time. The TAOI would include the secure area, the consolidation zone, the clearing zone, and the border surveillance zone. The secure area and consolidation zone would be under command of the province chief. The clearing zone and border surveillance zone would be under the ARVN field commander. FWMAF areas of operation could be in any of the zones.

For the 1st Marine Division, this meant that they no longer, in theory, would bear primary responsibility for security of Quang Nam province (for years their TAOR had been the eastern third or practically all the populated area of the province). The Marine rifleman, patrolling the paddy dikes south of Da Nang and stepping high to avoid tripwires, probably never heard of the shift from TAORs to TAOIs, but he was soon aware that he no longer was ranging quite so far afield



[18] By JCS Dictionary definition, *tactical area of responsibility* is "A defined area of land for which responsibility is specifically assigned to the commander of the area as a measure for control of assigned forces and coordination of support. Commonly referred to as TAOR." Thus a division, regiment, or battalion could have a "TAOR," however, in the Vietnam context the term ordinarily applied to the area of operational responsibility assigned to a U.S. division.

and he was conscious that there were more ARVN patrolling the "villes" and out in the bush.

The Hoang Dieu series of operations, which had already moved the ARVN toward an increased responsibility for territorial security, had continued, although at somewhat reduced vigor. Hoang Dieu 101 ended 19 January. The combined effort had resulted in a claimed 538 enemy killed, 87 prisoners, 45 Hoi Chanhs, and 171 weapons captured. Hoang Dieu 103 began 3 February and ended 10 March. III MAF's participation added 82 enemy killed to the totals. Tet 1971 had brought a slight increase in combat over preceding months but nothing like the surges experienced in previous years.

Visit by CG FMFPac and CMC

Lieutenant General William K. Jones, who had succeeded Lieutenant General Henry W. Buse, Jr., as Commanding General, Fleet Marine Force, Pacific, on 1 July 1970, was in Vietnam from 9 to 11 January 1971 on one of his periodic swings through the Western Pacific. Most of the conferences centered on Increments VI and VII and the tidy departure of III MAF from Vietnam.

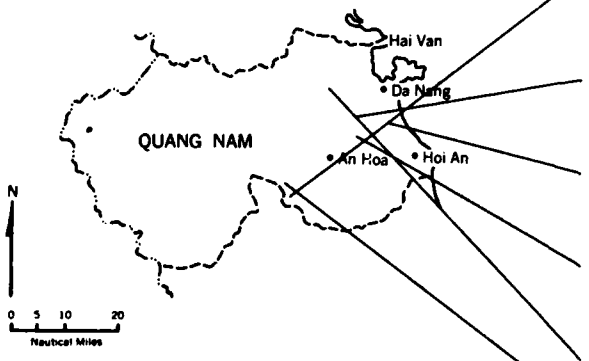
At the beginning of 1971, III Marine Amphibious Force was authorized 24,811 Southeast Asia Program Marines. (Actual III MAF strength on 31 December 1970 was 24,715 Marines plus 1,010 Navy men.) For reasons already discussed, there had been no redeployments of Marines in Increment V. For Increment VI, 11,207 would be redeployed during the period 1 January to 30 April. The remaining 13,604 would be organized into the 3d Marine Amphibious Brigade. By the first of the year, Increment VI seemed firm: RLT-5 with corresponding slices of aviation and logistic support would go home. III MAF headquarters would also depart. But what of the 3d Marine Amphibious Brigade? Would it be out of Vietnam by 30 June 1971 as part of Increment VII or would there be a requirement to stay? This was an unanswered question.

Close on General Jones' heels came General Leonard F. Chapman, Jr., for his last visit to the combat zone as Commandant. Visiting III MAF from 15 to 17 January, he, too, charged that the Marines would come out of Vietnam in good order, leaving nothing behind worth more than "five dollars."

There was also a great deal of more formal guidance forthcoming on how the Marines would come out of Vietnam. For example, on 30 January, FMFPac told III MAF that "It is policy that all principal end items with future economic potential for the Marine Corps be retrograded or redistributed to other WestPac units . . . ."

Upshur Stream

Colonel Kelley's 1st Marines on 11 January began an operation called Upshur Stream, the 1st and 3d Battalions moving up into the Charlie Ridge area to look for the elusive rocketeers of the 575th NVA Artillery Battalion. The operation went on until 29 March. Contact was small (13 enemy killed, 32 weapons captured) and most of the friendly casualties were from "surprise firing devices," the euphemism for the enemy's diabolical collection of land mines. But the number of rocket attacks against the Da Nang vital area remained low, possibly because of this and other vigorous actions to get at the rockets before they could be moved into launching position. (There was a standing



MAJOR 1st MARINE DIVISION OPERATIONS, 1970–71

PICKENS FOREST (16 Jul–24 Aug 70). Four Marines killed, 51 wounded. Enemy dead, 99.

IMPERIAL LAKE (31 Aug 70–7 May 71). Marine casualties: 24 killed, 205 wounded. Enemy dead: 305.

HOANG DIEU (22 Oct–31 Nov 70). Coordinated I Corps/III MAF operation. Marine casualties: Three killed, 62 wounded. Enemy dead claimed by USMC, 92. ARVN casualties: 51 killed, 189 wounded. Enemy dead claimed by ARVN, 498.

HOANG DIEU 101 (18 Dec 70–19 Jan 71). Coordinated I Corps/III MAF operation. Marine casualties: five killed, 87 wounded. Enemy dead claimed by USMC, 152. ARVN casualties: 43 killed, 279 wounded. Enemy casualties claimed by ARVN: 538 killed, 87 prisoners.

HOANG DIEU 103 (3 Feb–29 Mar 71). Coordinated I Corps/III MAF operation. Marine casualties: two killed, 99 wounded. Enemy dead claimed by USMC, 81. ARVN casualties: 44 killed, 260 wounded. Enemy casualties claimed by ARVN: 249 killed, 10 prisoners.

UPSHUR STREAM (11 Jan–29 Mar 71). One Marine killed, 19 wounded. Enemy dead: 13.

SCOTT ORCHARD (7–12 Apr 71). Four enemy killed.

offer that any Marine finding a rocket got a mini-R&R to Hong Kong or Bangkok.) In 1970, a total of 228 rockets was flung against Da Nang and its environs. (This total is less impressive when it is realized that the 122-mm. and 140-mm. rockets are nothing much more than self-propelled artillery shells.) None were received in January 1971, 21 in February, and 36 in March (the rise probably being the inevitable result of the thinning of American forces in the Rocket Belt).

Lam Son 719

By mid-January, ARVN preparations for some kind of a large scale offensive were highly visible.

But the first the III MAF subordinate commanders and their staffs knew officially about the impending incursion into Laos was on 30 January when they were briefed on the essentials of the operation. I Corps was going to enter Laos, they were told, to clean out Base Areas 604 and 611. There were thought to be 24,000 North Vietnamese in the objective area including the 2d NVA Division and a total of 11 regiments. Lam Son 719 was to be a spoiling action to offset what increasingly appeared to be an intention on the enemy's part to launch a large-scale offensive into the northern provinces of Military Region I. There were to be four planned phases to the operation. In Phase I, which began at 0001, 30 January, the 1st Brigade, 5th U. S. Mechanized Division, would open Route 9 from Vandegrift to abandoned Khe Sanh and thence to the Laotian border. This was to take five days. In Phase II, I Corps would move west along the axis of Route 9, cutting across the many-channelled Ho Chi Minh trail complex in a series of essentially heliborne operations as far as the ruined town of Tchepone 40 kilometers inside of Laos. In Phase III, I Corps would conduct systematic search-and-destroy action in Base Area 604 in the vicinity of Tchepone. Phase IV would be the withdrawal, looping southward through Base Area 611.

General Lam (who had operated along Route 9 in Laos as a junior officer under the French) moved his command post up to Dong Ha initially and then west to Khe Sanh. For the Laos incursion, he had the 1st ARVN Division, the 1st Armored Brigade, his Rangers, and sizable formations of Airborne troops and Vietnamese Marines. Support of the operation (initially called Dewey Canyon II) by XXIV Corps was to stop at the border except for air. This meant, amongst other things, that the American advisers had to be left behind.

Marine Corps involvement was to be small. The 1st Marine Division was asked to provide extra security along Route One, particularly in the Hai Van pass area, to prevent harassment of the north-south lines of communication, and a company of five-ton trucks from the 11th Motor Transport Battalion along with some forklifts and operators was to go north. The 1st Marine Aircraft Wing was to provide a heavy-lift capability by way of its CH-53s, and, through Seventh Air Force, would be tasked for tactical air support.

1st Marine Aircraft Wing support of the operation began on 31 January with CH-53Ds from HMH-463 moving gear for the 101st Airborne Division (Airmobile) into staging areas near Quang Tri. Subsequently they worked westward to Camp Carroll and Khe Sanh, which were re-opened for the operation.

On 8 February, the ARVN crossed over into Laos, initially against little or no opposition. Within a few days, however, elements of three NVA divisions, four artillery regiments, and a tank regiment materialized. On 8 February, eight Marine CH-53s lifted over a million pounds of cargo into Khe Sanh. Throughout February, Marine-provided lift continued at a level of from two to eight CH-53s. (The Army had no exact equivalent of these heavy lifters. The CH-54 Crane was a special-purpose helicopter. The CH-47 Chinook did not have the capability of lifting 155-mm. howitzers and D-4 bulldozers as was done routinely by the CH-53.)

A typical daily "package" provided Lam Son 719 was four CH-53s escorted by four AH-1G Cobras or newly-arrived AH-1J Sea Cobras. The four AH-1Js had arrived for combat "evaluation" on 17 February and were attached to HML-367. The twin-engined Sea Cobra could fly higher and faster than the single-engined AH-1G and it could stay in the air if one engine failed. Its three-barreled 20-mm. "Gatling Gun" in a chin turret gave it significantly more firepower than the original Cobra's 7.62-mm. machine gun and 40-mm. grenade launcher. The Sea Cobra's first combat mission was flown 2 March with Lam Son 719 providing a relatively high intensity ground fire environment. The Sea Cobras, with their heavier firepower and twin-engined reliability, quickly proved their combat worth.

The package would leave Marble Mountain early in the morning and stage through LZ Kilo near Khe Sanh. Escort by the Cobras was in keeping with Marine doctrine and, although there were many heavy lifts into Laos (the farthest west being to FSB Sophia near Tchepone, 40 kilometers inside the border) only one Marine heavy helicopter was lost to enemy fire. That was by a chance mortar round as the CH-53 sat down in a "hot" landing zone. In February the CH-53s flew a total of 2,045 sorties lifting 4,436 tons of cargo and 968 passengers in support of Lam Son 719.

By the end of February,[19] General Lam could reasonably claim to have preempted the expected large

[19] Debates as to the success or failure of the Laos Incursion and its consequences, military and political, lie outside the purview of this article.

scale offensive into the northern provinces. He had cut the Ho Chi Minh trail complex and had engaged the enemy in a major battle. The pull-back, which now began, also required Marine heavy helo lift to get out guns and other heavy equipment. In March the CH-53s flew 980 sorties in support of the operation, lifting 1,491 tons of cargo and 1,556 troops.

Marine fixed wing aircraft meanwhile were flying 509 sorties and dropping 1,183 tons of ordnance in February in support of Lam Son 719, followed in March by 436 sorties and 1,447 tons of ordnance. The Quang Tri Air Support Radar Team was helo-lifted to Khe Sanh on 23 February. Put into operation the same day, it controlled nearly a thousand sorties, flown by the full gamut of Free World aircraft, before returning to Quang Tri on 31 March.

Some of the problems of supporting Lam Son 719 were never solved. The enemy seemed to know every move in advance. Aerial support was hampered by the weather which delayed getting started each day. Enemy antiaircraft fire, although limited to light AA guns and automatic weapons, was never adequately suppressed. NVA artillery hammering away at the bull's eyes of the ARVN fire support bases was difficult to locate and never silenced. The absence of American advisers on the ground created some difficulties in battlefield liaison and communications.

Ultimate casualties for Lam Son 719 were reported, as of 9 April, as being 13,636 enemy killed, 5,066 individual and 1,934 crew-served weapons taken; 1,483 ARVN killed, 5,420 wounded, and 691 missing. U. S. support of the operation had cost 176 Americans killed, 1,048 wounded, and 42 missing.

Increment VI

The 5th Marines were returning to Camp Pendleton, but after the usual personnel "mixmaster," in nothing more than cadre strength. On 15 February, the 3d Battalion, 5th Marines, stood down, coming out of the Que Sons and moving its rear from FSB Ross to Hill 34, south of Da Nang, which was to be used as a staging area for the infantry battalions as they got ready to leave country. Ross was turned over to I Corps. FSB Ryder, the superb artillery battery position on the ridge above Ross overlooking Antenna valley, was razed for lack of a tenant. (Directives from MACV and XXIV Corps concerning disposition of unwanted facilities used the term "abandon;" 1st Marine Division, however, was insistent that it was "dismantling" facilities and "razing" tactical installations. Nothing of possible value to the enemy was left behind and a high standard of police was rigidly enforced.) The 3d Battalion was followed in short order by the 2d Battalion and the 5th Marines regimental headquarters from Baldy.

As yet there had been no adjustment in the size of the Division's area of operations. The 1st Marines, the sole remaining infantry regiment, put a bob-tailed battalion into the Que Sons to continue Imperial Lake and also to provide security at Baldy until the Vietnamese were ready to take over the base.

As late as the end of February, MACV was asking for changes to the Marine aviation forces remaining in-country. With Lam Son 719 still going on, MACV was concerned over the impending departure of additional Marine helicopters and attack aircraft and the loss of the radar bombing capability embodied in the ASRTs. Some departures were already irreversible.

VMFA-115, the last Marine F-4 squadron in-country, flew its last mission on 22 February and then stood down preparatory to moving to Iwakuni. In three tours in-country since October 1965, the squadron had flown 30,083 sorties and dropped 583,345 tons of ordnance.

HMM-364 redeployed to Santa Ana with its CH-46s on 11 March. HMM-364 also had three tours in-country (the first two while equipped with the UH-34) and since February 1964 had flown 256,450 sorties, lifting 377,600 passengers and 14,425 tons of cargo, and making 25,570 medevacs.

VMO-2, the aerial eyes of the 1st Division, departed for Camp Pendleton on 8 April, leaving behind a detachment of four OV-10As for duty with the Brigade. While in Vietnam, VMO-2 had logged over 120,000 sorties and controlled more than 3,000 air strikes plus spotting for innumerable artillery missions.

Headquarters, 1st Marine Aircraft Wing, stood down officially on 28 March but continued flight operations and essential staff functions. The Wing's Direct Air Support Control Center (DASC), which was collocated with the Division's Fire Support Coordination Center (FSCC), had controlled at least 150,000 helo missions and was staying in Vietnam as part of the Brigade.

On 15 March, the major ground ammunition supply point, ASP-2, was turned over to the U. S. Army. On 27 March Camp Faulkner near Marble Mountain, home of the 1st Engineer Battalion, went to a mechanized cavalry element of the 23d (Americal) Infantry Division. Baldy, a great sprawling combat base, went to the Vietnamese on the same day.

Battle for Duc Duc

Toward the end of March, there was hard intelligence that the enemy was going to launch his "K-850" offensive in Quang Nam the night of 28/29 March. "Open fire," it was said, was to be from 2300 on the 28th to 0200 on the 29th. Despite the forewarning and reasonably effective countermeasures (including the incentive mentioned earlier of an R&R for every Marine

2d Battalion, 1st Marines, the last infantry battalion in the field, stood down. Raymond Davis, now a four-star general and Assistant Commandant, was visiting and had lunch with Company F south of the Song Cau Do, close to where the 9th Marines had first crossed the river in July 1965. Also at noon, two companies of the 196th Light Infantry Brigade relieved the Provisional Company from 2d Battalion, 1st Marines, which had been manning Division Ridge (where Company I, 3d Battalion, 9th Marines, had first climbed on 10 March 1965) and Battery B, 1st Battalion, 11th Marines, drove away from Hill 55 with its six 105s and two 155-mm. in convoy. Last rounds had been fired the day before by Battery C at the Northern Artillery Cantonment. As soon as the last two firing batteries' 105-mm. howitzers were cleaned and inspected they were turned over to the Vietnamese Marines. The 1st Battalion, 11th Marines, in its more than five years in-country had shot over 2.5 million rounds. On this same day, 7 May, 16 A-4s from VMA-311 flew their last strike into Laos, the four remaining OV-10As flew their last reconnaissance, HMM-262 stood down its CH-46s, the ASRT on Hill 327 began to dismantle its radars,[22] the 1st Military Police Battalion relinquished its airfield security mission to a Regional Force group, and 2d CAG pulled in its last CAPs from Dien Ban district. On 7 May also, the 3d MAB headquarters cantonment was transferred to the 196th Light Infantry Brigade although the 3d MAB headquarters would stay on as tenants until 26 June.

On 10 May, the Northern Artillery Cantonment was transferred to the government of Vietnam as was Camp 14, which had been the picturesque and comfortable base camp for the now-departed 3d Battalion, 1st Marines. On 15 May, the remaining ammunition supply point, ASP-1, was turned over to ARVN. On 21 May, Colonel Pommerenk released MAG-11's facilities on the west edge of the Da Nang air base (developed to a point where they would have been unrecognizable to the original Shu Fly occupants) to the U. S. Air Force. New home for MAG-11 would be El Toro where it would become part of the 3d Marine Aircraft Wing.

By 26 May, all of the last infantry unit, the 2d Battalion, 1st Marines, were off of Hill 34, and on their way to Camp Pendleton. The 26th of May was also the last day for helicopter operations, remaining CH-53s of HMH-463, UH-1Es of HML-167, and Cobras of HML-367 standing down. On 1 June the transfer of Marble Mountain Air Facility by Colonel Street's MAG-16 to the U. S. Army was completed and the last members of the Group headquarters were on their way to Santa Ana where MAG-16, like MAG-11, would be assigned to the 3d Marine Aircraft Wing. On 4 June, Brigadier General Jones released the Force Logistics Command's Camp Books—its remaining Butler buildings now starkly empty—to the ARVN 1st Area Logistical Command.

With all operations over, there was now nothing left for the service and service support units to do but complete their own preparations for departure. The last surface element sailed on 25 June in the USS *Saint Louis* (LKA-116) and included some members of Company A, 1st Medical Battalion (who had maintained a 60-bed hospital through the operational life of the Brigade) and hard-working Company A, 7th Engineers, acting as cargo riders for their administratively-loaded equipment. On 26 June, Major General Armstrong boarded a Marine KC-130F with the last ten members of 3d MAB's headquarters. His destination was Okinawa, first leg to Hawaii and deactivation.

This left only a "transitional-support" force of about 500 Marines still in Vietnam. The largest number were members of the 1st Air and Naval Gunfire Liaison Company, parceled out in teams from just below the DMZ down to the southern tip of the peninsula. There was also a Marine advisory unit of about 60 officers and men with the Vietnamese Marine Corps which had grown to a three-brigade light division. The rest, except for a few in the MACV structure, were guards with the U. S. Embassy and consulates. There would continue to be a scattering of casualties, but those who remained were performing essentially liaison, advisory, staff, and guard functions. It was thought that the air-ground war for the Marines in Vietnam had ended. Then came the North Vietnamese Eastern offensive.

Easter Offensive, 1972

On 30 March 1972, the North Vietnamese began their three-pronged attack. In the north, two NVA divisions attacked, one slicing across the DMZ while a second rolled east along Highway 9 into Quang Tri province. A third division moved east from the A Shau Valley toward Hue. The initial NVA attack in Quang Tri province was supported by as many as 200 tanks and large numbers of 122-mm. and 130-mm. field pieces. His SAMs—the big surface-to-air missiles—were moved south, close to the DMZ, from where they could cover much of Quang Tri province. His other anti-aircraft weapons ranged from 12.7-mm. to 57-mm. and, something new, there was the SA-7, a Russian-made heat-seeking missile similar to the Redeye. With this strength he overwhelmed the new and green 3d ARVN Division, and the old, familiar combat bases—Khe

[22] The Quang Tri and Da Nang ASRTs stood down on 8 May but the ASRT at FSB Birmingham remained operational until 30 May to support ARVN and U. S. Army units in Lam Son 720 being run in A Shau valley.

who found a rocket), the enemy managed to sprinkle Da Nang and its environs with 23 rockets during the course of the night, the highest daily total in a year. There were also mortar and ground attacks against four district headquarters: Dien Ban, Dai Loc, Que Son, and Duc Duc. The explicit propaganda message was "If we can do this while the Marines are still here, what will it be like when they have gone?"

The most serious attack was against Duc Duc.

On 29 March, the 38th NVA Regiment surfaced for the first time in months. Coming out of the hills beyond An Hoa in a two battalion attack, the 38th tried to seize Duc Duc district headquarters. Phu Da and Thu Bon hamlets were heavily damaged—1,500 dwellings were destroyed, 103 civilians were killed, 96 wounded, and 37 kidnapped—and the VC flag was advanced almost to the gates of the District headquarters compound, defended at a cost of 20 PFs killed, 26 wounded. The 51st ARVN Regiment counter-attacked and in four days of fighting, without help from U. S. ground forces, ejected the 38th NVA Regiment.

Scott Orchard

Partially in response to the attack against Duc Duc, the 1st Marines on 7 April made a last foray, called Scott Orchard, into the base area in the wild country west of An Hoa. Combining some of the aspects of Pickens Forest and Catawba Falls, a composite 105-mm. and 155-mm. battery was set up on precipitous FSB Dagger and five companies under control of 2d Battalion, 1st Marines, were inserted into the target area. There was almost no contact, four enemy were killed and 12 weapons captured, and the raid was ended on 12 April.

III MAF Departs

The 14th of April 1971 was the day that III Marine Amphibious Force, after just short of six years in-country, left Vietnam.[20] Lieutenant General Robertson took his flag and headquarters to Okinawa. Major General Widdecke departed with the 1st Marine Division colors for Camp Pendleton.[21] The 1st Marine Aircraft Wing colors went to Iwakuni but without Major General Armstrong who was to stay behind as Commanding General, 3d Marine Amphibious Brigade.

3d Marine Amphibious Brigade

The much-postponed 3d Marine Amphibious Brigade, task organized from the air, ground, and logistic units, some 13,600 Marines, that were to stay behind, was activated for planning on 1 March and for operations on 14 April. It included a ground element (essentially a regimental combat team built around Colonel Kelley's 1st Marines, a fixed wing group (Colonel Pommerenk's MAG-11), a helicopter group (Colonel Street's MAG-16), and the remainder of Brigadier General James R. Jones' Force Logistic Command. There was also the 2d Combined Action Group (all that remained of the Combined Action Program) and the 1st Military Police Battalion (airfield security plus armed forces police and war dog duties formerly performed by 3d Military Police Battalion which had gone home in Increment IV).

The 196th Light Infantry Brigade, which would ultimately be the last U. S. ground combat element in Quang Nam province, moved into the Que Sons on 13 April, putting a battalion command post on Hill 510. Everything south of Phase Line Blue, a line drawn along the Vu Gia—Thu Bon rivers was now the responsibility of (or, in the new terminology, "of interest" to) the Army.

The operational life of 3d MAB would be short. On 7 April, President Nixon announced the numbers of American troops to be out of country by 30 June. The 3d MAB would be amongst those to be redeployed. The 1st Battalion, 1st Marines, and an artillery firing battery had stood down on the 13th, so the brigade had actually lost a third of its ground combat strength a day before it became operational. VMA(AW)-225, the last A-6 squadron, stood down on 20 April and by the end of the month was flight-ferrying all of its planes back to El Toro.

The CUPP program ended in April with the redeployments. The CAP program was down to three companies with 18 platoons and all were to be deactivated by 7 May. Possibly because of the thinning out of Americans at the hamlet and village level there was an upsurge of terrorist activity in Quang Nam province: 28 assassinations, 101 kidnappings, and 15 bombings in March; 16 assassinations, 132 abductions, and 5 bombings in April.

End of Combat

On 1 May, 3d MAB responsibility receded to Phase Line White, essentially Hoa Vang District.

The one named operation still underway was Imperial Lake. As the Marine's area of operations had contracted, the focus of the operation had shifted from the Que Sons to Charlie Ridge. It terminated on 7 May 1971.

Along with Imperial Lake, all ground and air combat ended for the 3d MAB on 7 May. On that day, the

[20] III Marine Expeditionary Force was activated 6 May 1965. Next day the designation was changed to III Marine Amphibious Force. *See* "Marine Corps Operations in Vietnam, 1965-1966," *Naval Review, 1968*, p. 10.

[21] The 1st Marine Division was officially welcomed home by President Nixon on 30 April in nationally televised ceremonies.

Sanh, Camp Carroll, Con Thien, Gio Linh—began to fall, one by one.

At this time, two Vietnamese Marine brigades were under the operational control of the 3d ARVN Division. Brigade 147[23] was operating out of Mai Loc, west of Dong Ha, and Brigade 258 was operating out of Dong Ha. Brigade 147 was heavily hit at Mai Loc and Nui Ba Ho and at FSBs Holcomb and Sarge. By 2 April, the brigade commander, out of contact with the 3d ARVN Division, had come to a reluctant conclusion that he would have to fall back to Quang Tri city. Meanwhile, Brigade 258 was hit hard at Dong Ha but held all positions. The 3d VNMC Battalion was holding the bridgehead at Dong Ha and on 2 April, as the enemy's armored column reached the bridge, Captain John W. Ripley, the battalion's advisor, personally blew up that structure and won himself the Navy Cross. Brigade 258 then withdrew to positions near Quang Tri city.

On 3 April, the Joint General Staff ordered the Marine Divison headquarters and Brigade 369 north from Saigon. The Vietnamese Marine Division at this time was commanded by Lieutenant General Nguyen Le Khang. His senior U. S. advisor was Colonel Joshua W. Dorsey, III, who had commanded the 3d Battalion, 3d Marines, in Vietnam in 1965–66. The Division located its command post in the Hue Citadel where it was joined by Brigade 147 which required re-fitting. Brigade 369 went into action near FSB Nancy.

Elsewhere in South Vietnam the other two prongs of the NVA general offensive were making themselves felt. In the south, three NVA divisions came out of Cambodia along the axis of Route 13 and were stopped at An Loc. In the center, in mid-April, two NVA divisions launched themselves from Laos against the Central Highlands, moving south through Dak To toward Kontum.

The 3d ARVN Division, including Brigade 147 which had gone up to relieve Brigade 258, now occupied a rough line along the Cua Viet river and it held until 27 April when it broke under a fresh NVA attack. On 30 April, Brigade 147 was given the mission of covering the withdrawal of the 3d ARVN Division from Quang Tri city. Quang Tri city fell on 1 May. Brigade 369 took up a line along the My Chanh river which marks the boundary between Quang Tri and Thua Thien provinces. On 2 May, Brigade 147 moved through Brigade 369's defensive positions and on into Hue to regroup. By 4 May, all of Quang Tri province was lost. By this time the 3d ARVN Division was no longer combat effective and was falling back, eventually to reform in Quang Nam province, moving into camps once occupied by the 1st Marine Division.

Brigade 258 was now moved into the My Chanh line west of Brigade 369's positions. In addition to its own three brigades, the Vietnamese Marine Division now had operational control of the 1st Ranger Group and the 2d Airborne Brigade. These were all that stood between the North Vietnamese army and the northern approaches to Hue.

U. S. Marine Support

At sea, by the end of the first week in April, the 9th Marine Amphibious Brigade under Brigadier General Edward J. Miller, four battalion landing teams and two composite helicopter squadrons embarked in Seventh Fleet amphibious shipping, had taken station. No ground combat troops were to be landed. The Brigade was there to provide helicopter and amphibian tractor support to the embattled Vietnamese Marines.

On 6 April, MAG-15, commanded by Colonel Keith O'Keefe, was ordered to move with two F-4J squadrons to Da Nang. The Group arrived with VMFAs 115 and 232 began combat operations on 9 April. A third squadron, VMFA-212, came in from Kaneohe on 14 April. Most of MAG-15's sorties would be flown in Military Regions 1 and 2. VMA(AW)-224 with its Grumman A-6A Intruders was on board the USS *Coral Sea* (CVA-43) at Yankee Station, but most of its missions were being flown to Laos and North Vietnam.

For naval gunfire support, every available cruiser and destroyer in the Seventh Fleet took its turn on the line. ANGLICO teams were involved in all four military Regions but most were working in Military Region 1.

MAG-12, under the command of Colonel Dean C. Macho, was alerted on 12 May to move with two of its A-4 squadrons, VMAs 211 and 311, to Bien Hoa air base in Military Region 3. This was not a field from which Marine air had worked before. The move to Bien Hoa began on 16 May and first combat sorties were flown three days later. MAG-12 would concentrate its operations on the southern half of South Vietnam and along the Cambodian border while MAG-15, flying out of Da Nang, would concentrate on the northern half of the country and along the Laotian border. With few exceptions, all close air support missions were being controlled by airborne forward air controllers. It was estimated that half the enemy tanks destroyed and half his personnel casualties were the result of tactical air.

After taking Quang Tri province the enemy paused to regroup. Toward the end of May he resumed his drive against Hue, but was stopped along the line of

[23]Vietnamese Marine brigades take their designations from their original infantry battalions, thus, in the case of brigade 147, it would be the 1st, 4th, and 7th Battalions. However, as with U.S. Marine regiments, Vietnamese battalions are often moved in and out of the operational control of their parent brigade. For example, on 30 March, Brigade 147 had the 1st, 4th and 8th Infantry Battalions and the 2d Artillery Battalion.

the My Chanh by the determined defense of the Vietnamese Marines and Airborne troopers, and to the west of the city by the veteran 1st ARVN Division, all supported by great quantities of U. S. naval gunfire and tactical air. On 24 May, the Vietnamese moved north of the My Chanh with an amphibious assault by Brigade 147, landing at Wunder Beach, 16 kilometers from Quang Tri city, and sweeping south between the sea and Highway One.

Marine air support continued to expand. Task Force Delta was reactivated under Brigadier General Andrew W. O'Donnell, the Assistant Wing Commander of 1st MAW, and sent to northern Thailand to open an airfield at Nam Phong. First echelons of the Marine logistic support group and the 30th Naval Construction Regiment arrived there in mid-May. Nam Phong, 300 miles from Da Nang and about the same distance from Hanoi, had been begun five years earlier as a stand-by facility. Never completed, it offered a 10,000-foot runway, taxi strip, parking apron, six nose docks (which were being used as improvised barracks by the Thais), and not much else. The Marines promptly named it the "Rose Garden" in derisive reference to the current recruiting slogan,[24] but the Seabees went to work (in temperatures of 110 degrees) and soon there were "Wonder-Arch" rocket shelters for the aircraft, a chapel, 300 strong-backed tents, and a mess hall which boasted better food than Da Nang.

VMFA-115 re-deployed from Da Nang to Nam Phong on 16 June and combat flight operations began the next day. MAG-15 headquarters and VMFA-232 followed on 20 June. VMFA-212 was detached to return to Kaneohe, but VMA(AW)-533 arrived at Nam Phong with its all-weather A-6s and flew its first combat mission on 24 June.

Something new was added in the way of sea-based tactical air on 20 June when a detachment from HMA-369 began operating its AH-1J Sea Cobras from the decks of the USS *Denver* (LPD-9) off the North Vietnamese coast. Prime targets for the Sea Cobras were the lighters being used to ferry cargo ashore from the ships anchored outside the minefields.

Counterattack

By 28 June, the South Vietnamese forces north of Hue were ready to begin their counteroffensive. A two-division attack jumped off, Airborne Division on the left flank, Marine Division on the right flank, next to the sea. The attack rammed its way back up Highway One and then slowed in the face of North Vietnamese determination to hold Quang Tri city and its Citadel. Twice during July the Saigon government announced, prematurely, the recapture of the provincial capital. The Airborne Division was relieved on 27 July and the burden of completing the fight for Quang Tri fell to the South Vietnamese Marines.

Then, southwest of Da Nang, a fresh NVA column came out of the mountains into Que Son valley (of bitter Marine Corps memory) and, on 19 August, the 5th Regiment, 2d ARVN Division, withdrew from Combat Base Ross and Que Son district headquarters. The North Vietnamese were eventually driven out of Ross and the town of Que Son, but the valley remained infested with their presence.

In the north, the Vietnamese Marines were literally up against the 15-foot walls of the 50-acre Citadel. As September began, Brigade 258 was on the Division's left front, Brigade 147 on the right; the brigades separated by the Vinh Dinh river. On 7 September, the 1st Ranger Group was moved into Brigade 147's positions, freeing 147 to attack Quang Tri from the northeast. The jump-off for the final assault came at 0500 on 9 September, six battalions from the two brigades in the attack. By 11 September, a platoon from 6th Battalion, Brigade 258, had found its way through a hole blasted by American jets in the south wall. The rest of the battalion followed and took the southeast quadrant of the fortress. Other Marines came over the north and east walls. By nightfall on the 15th the Citadel had been cleared and at noon on Saturday, 16 September, the red-striped yellow flag of the Republic of Vietnam went up over the ruined west gate.

As The Year Ended

As 1972 neared its end and as Dr. Kissinger and Le Duc Tho continued their meetings in Paris, at least a state of equilibrium if not victory had been reached in South Vietnam: An Loc and Kontum had survived, the threat to Hue had been pushed back, and Quang Tri, the only provincial capital to fall to the North Vietnamese, had been recaptured.

Vietnam had been the longest and, in some of its dimensions, the biggest war in Marine Corps history. At its peak strength in 1968, III Marine Amphibious Force had had 85,755 Marines, more than a quarter of the Marine Corps and more Marines than were ashore at Iwo Jima or Okinawa. In World War II, our largest war, 19,733 Marines had been killed and 67,207 wounded. In Vietnam, from 1 January 1961 through 9 December 1972, enemy action had caused the death of 12,936 Marines—28.4% of the 45,915 U. S. killed or dead as the result of enemy action. Another 1,679 Marines had died of non-battle causes. Wounded in action total 88,589, of whom 51,389 required hospitali-

[24]The slogan: "We don't promise you a rose garden."

zation—33.5% of the 153,256 U. S. WIAs hospitalized. Only 26 Marines were known to be prisoners—4.7% of the 554 known U. S. prisoners. Another 93 were MIA—8.0% of the 1,156 Americans missing in action. Fourteen more were simply "missing"—12.0% of the 117 Americans thus accounted for.

In turn, the Marines had taken 4,098 prisoners (judged bona fide enemy fighting men, not just detainees) and 22,879 weapons. Moreover, they claimed 86,535 enemy killed in the period from March 1965 to May 1971.

The Corps' peak strength during Vietnam was 317,400, far under the peak of 485,113 reached in World War II, but during the six years of Vietnam some 730,000 men and women served in the Corps as opposed to some 600,000 in World War II. The reason for the lower peak strength yet higher total number serving was, of course, that Vietnam was fought using peacetime personnel policies. A man was not held for the duration; he served his time and then was discharged. Marines served a 12- or 13-month tour in Vietnam and then came home. Some 9,000 to 10,000 replacements were needed each month in the Western Pacific. To keep this going, some 85,000 to 120,000 Marines entered and left the Marine Corps each year. It is estimated that nearly half a million Marines served in Vietnam itself.

Most of these Marines, as they went up the ship's gangplank or the aircraft's ramp on their way home, probably left Vietnam with a feeling that they and the Marine Corps had done the job assigned to them. Most may also have left with a feeling of cautious optimism insofar as the future of Vietnam was concerned. Few, however, would take exception to the judgment of Keyes Beech (himself a Marine Combat Correspondent in World War II) leaving Vietnam after ten years of reporting on the war:

"In closing I would like to offer a salute to that skinny little Viet Cong somewhere out there in the jungle shivering in the monsoon rains . . . . He is one hell of a fighting man."

Easter invasion 1972

by LtCol G. H. Turley
and Capt M. R. Wells

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I Corps was almost peaceful again. Seven years of hard fighting had faded into the past as a feeling of tranquility spread through Quang Tri Province. Highways, long closed, were open and filled with traffic which stimulated the rebirth of a blossoming economy. Market places in Cam Lo, Dong Ha and Quang Tri City, humming with the incessant chatter of bargaining Vietnamese, were heavy with food and wares. Around them, an ugly war was slowly dying. U.S. Marines, from the Third Division had been out of country over two years. A battle area once known as "Leatherneck Square," remained only a dim memory. Under President Nixon's Vietnamization plan the last U.S. Army combat brigade in Northern I Corps was rapidly preparing to standdown. The South Vietnamese were now shouldering the full responsibility for the ground combat role.

In place of 80,000 U.S. troops which had departed I Corps, stood the fledging 3rd ARVN Division. Reinforced by two brigades of Vietnamese Marines, Regional and Popular Forces the division still totalled less than 9,000 men. The division was headquartered at Ai Tu (Quang Tri) Combat Base, three kilometers northwest of Quang Tri City. Thinly spread over 300 square miles were the 3rd ARVN's 2nd, 56th and 57th Regiments plus Marine Brigades 147 and 258; all together, a token defense force.

The 57th ARVN Regimental area of operation (AO), extended from Dong Ha, due north to the DMZ and east to the Gulf of Tonkin. The regiment's infantry and artillery battalions were positioned on fire support bases (FSB) Alpha-1, Alpha-2 (Gio Linh), and Alpha-3. All bases fronted the DMZ, 2,000 meters to the north. This regiment, less than six months old, had its headquarters at FSB C-1 midway between Dong Ha and the DMZ. The 2nd ARVN Regiment's AO included combat bases North of Cam Lo, at Alpha-

The 1972 Easter Invasion by the North Vietnam Army, that several months later backfired into the re-capture of Quang Tri City by Republic of Vietnam Marines, may have pre-destined the end of the war.

4 (Con Thien), Charlie-2 and Charlie-3. Located at FSB CARROLL, and activated a brief 90 days earlier, was the 56th ARVN Regiment. This Regiment had its infantry units at FSB'S FULLER, KHE GIO and CARROLL. Co-located at FSB CARROLL was a composite artillery group of 22 pieces varying from 105mm howitzers to 175mm guns.

At an earlier time the 3rd ARVN Division commander had developed a plan to periodically rotate his forces through each regimental area of operations. On 30 March 1972, the 56th and 57th Regiments commenced to exchange their AO's. To insure maximum use of trucks, convoys alternated unit displacements by carrying full loads of troops in both directions. It was anticipated this administrative move could be completed by dusk that same day. The rotation began on schedule and by 1100 approximately 40 per cent of each egiment had been relocated. Both regimental headquarters were also in the process of displacing. There was no urgency, the front was calm on this Holy Thursday. The warm spring sun signaled the customary noon day siesta an hour away.

At the same time far to the west the 4th Vietnamese Marine Battalion, located on FSB's SARGE and NUI BA HO sighted enemy troop movements of platoon and company size. Moments later the 8th Marine Battalion, Bravo Command Group on FSB HOLCOMB reported enemy ground contact with an estimated company size force. These were the first ground contacts of the 1972 North Vietnamese Easter Invasion.

Precisely at noon, on 30 March, the main body of a North Vietnamese Army, three divisions strong, invaded South Vietnam. Over 45,000 enemy, reinforced by Russian built tanks, SAM missiles, anti-aircraft weapons and long range artillery blasted a three-pronged attack across the demarcation line (17th Parallel) which partitioned Vietnam as a result of the 1954 Geneva Accord.

The test of Vietnamization had come. Hanoi, by changing its military tactics to those of conventional war backed by sophisticated machines of destruction had caught the 3rd ARVN Division by surprise. Massive attacks by fire shattered the calm over South Vietnam as the three most northern districts underwent precision artillery barrages. Unprecedented, indiscriminate firings by North Vietnamese gunners struck military and civilian areas alike, forcing 50,000 refugees to the highways fleeing south toward Quang Tri City. Panic prevailed. The question echoed around the world—could the South Vietnamese Army contain the advancing Communist onslaught?

Within the next 24 hours over 5,000 artillery and rocket rounds struck all 12 of the major combat bases watching the DMZ. The 56th and 57th Regiments caught in the midst of their AO change were paralyzed, unable to react. Heavy T-54 and amphibious PT-76 tanks roared south sending the untried 3rd ARVN Division reeling back. Fire bases A-1, 2, 3, 4, FULLER, CARROLL, MAI LOC, SARGE and NUI BA HO were all contained under unrelenting artillery barrages.

By 1800 on 30 March, the 4th Vietnamese Marine Battalion troops on SARGE and NUI BA HO had received more than 600 rounds of mixed 82mm mortar, 122mm and 130mm artillery fire. The next 36 hours saw the intensity of incoming fire increase even more as low cloud cover throughout the area prevented the use of tactical air support. Intense enemy pressure at CARROLL and MAI LOC prevented these bases from replenishing critically low stocks of ammunition. Artillery support for SARGE and NUI BA HO dwindled.

Initially NUI BA HO received the brunt of the enemy ground attacks and after repeated assaults were beaten back; the fire base was penetrated. As night closed in, hopelessly outnumbered Vietnamese Marines moved to the

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southeast corner and, unable to defend their position, began to breach the booby-trapped perimeter wire. North Vietnamese soldiers were now intermingled with Marines. Capt Ray L. Smith, USMC, the advisor, threw himself across the final barrier of booby-trapped concertina thus making a human bridge for the last 30 Marines to leave. NUI BA HO was the first combat base to fall to the North Vietnamese Easter Invasion.

Individual acts of heroism occurred everywhere across the 3rd ARVN Division front, but the armored momentum and tenacity of the North Vietnamese invasion could not be restrained. ARVN forces fell back.

FSB SARGE had its perimeter penetrated at 0200, 1 April. At 0345 its gallant defenders were forced to evacuate the shattered peak. The battered Marines of the battalion Alpha Command Group moved off the eastern slope of the perimeter and were immediately engulfed by the night and forest. For the next two days small groups of the 4th Battalion evaded the enemy and made a march for their lives back to MAI LOC. All radio contact was lost. The unspoken sensation was that the 4th Marine Battalion had been lost forever.

The 7th Marine Battalion, located in Danang as part of the I Corps reserve when the invasion began, was immediately ordered north. Moving by truck they arrived at Dong Ha that same night. The following morning the 7th Battalion deployed west of Dong Ha toward Cam Lo eventually reaching FSB MAI LOC where they were placed under OPCON of Brigade 147.

Late on the afternoon of 30 March, Brigade 258, consisting of the 3rd Artillery and 3rd Infantry Battalion, was directed to displace from FSB NANCY, to the Dong Ha Combat Base 30 kilometers northwest. The move was completed at 2300. On the 31st the 3rd Marine Battalion was positioned to provide security along Route 9 and around Dong Ha Combat Base. On 1 April the brigade headquarters was ordered to move back to AI TU and assume overall security for the 3rd ARVN Division command post. The 3rd Marine Battalion remained at Dong Ha.

LtCol Dinh, Brigade 258 commander, arrived at AI TU in time to be greeted by an 800-round artillery barrage. The 6th Vietnamese Marine Battalion, which had been on FSB BARBARA, had also just arrived and was assuming the perimeter defense of AI TU. Due to the increasing enemy artillery attacks on the 3rd ARVN Division command post, it was necessary to displace the division headquarters back to the Citadel in Quang Tri City. U. S. advisors, fire support coordination personnel and their control facilities remained at AI TU (3rd ARVN Division Forward) and became the only Vietnamese command post north of Danang which contained facilities for the control of U. S. supporting arms assets. As such it quickly became the focal point for the continued effective employment of U. S. supporting arms for the 3rd ARVN Division. For five critical days naval gunfire missions, B-52 arclight strikes, tactical air support and Vietnamese fire support coordination were all controlled from within this one bunker.

LtCol Turley **Capt Wells**

LtCol Turly and Capt Wells were advisors to the Vietnamese Marine Corps during its successful fight against the NVA that led to the recapture of Quang Tri City. LtCol Turley, who has spent much of his career in recon units, is currently the G-3 advisor to the VMC. He served a previous tour in Vietnam with 1stMarDiv.

Below the DMZ the battle continued to rage. At 1045 hours, 1 April, Con Thien was evacuated. By 1430 hours FSB's FULLER, KHE GIO and HOLCOMB had all been evacuated. The NVA were seemingly everywhere. Soldiers, civilians and infiltrating NVA artillery observer teams clogged Highway 1 and Route 9. Military control of ARVN units was fragmented and becoming ineffective. The enemy further compounded the military situation by jamming the radio nets and transmitting contradicting messages over captured ARVN radios. Several aircraft were shot down during the first two days of the invasion. The U. S. activated rescue missions imposed sudden and large area "no fire zones" on all supporting arms thus complicating responsive fire plans. Hastily developed defensive plans faltered, order was lost.

By the morning of the 2nd, South Vietnamese forces were attempting to reposition and establish a new defensive line along the Cam Lo-Cua Viet River. The last two remaining western fire support bases at CARROL and MAI LOC continued to remain under heavy 82mm mortar and 130mm artillery fire.

At 0900 a two-pronged North Vietnamese tank column was reported north and northeast of Dong Ha. The main armor thrust was moving on Highway 1, near FSB C-1. The second tank column was traversing the beaches north of the Cua Viet River's mouth. Immediately grasping the gravity of the situation, the Brigade 258 com-

mander ordered the 3rd Vietnamese Marine Battalion to secure a bridge head on the south side of the Dong Ha bridges. Anti-tank elements of the 6th Marine Battalion were also ordered North to supporting positions. Vietnamese Marines were now totally committed, the 3rd ARVN Division was without a reserve force.

Maj Binh, commanding the 3rd Battalion, was ordered to "Hold Dong Ha at all costs." Two companies moved across the Dong Ha Combat Base to the bridges. One company took up defensive positions around the main vehicular bridge. The second deployed to the west along Route 9 to include the adjacent abandoned railroad bridge. An NVA flag was flying from the northern girder of the railroad bridge as the Marines took up hasty fighting positions. Armed with only hand-held M-72 anti-tank weapons, a small force of Marines dug in and prepared to halt the first major NVA tank and infantry assault of the Vietnam War.

Refugees and ARVN stragglers were still streaming south across the main bridge. Population control was becoming a major problem.

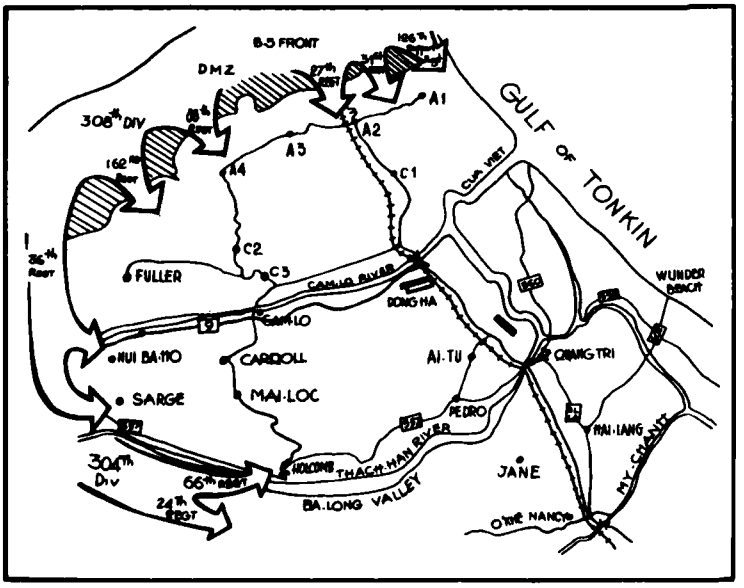
As the 3rd Battalion's command element arrived at the bridge, the enemy unleased a devastating 45-minute artillery attack which precluded any troop movements south of the river. At 1020 the enemy armored column on Highway 1 was identified as 20 PT-76 and T-54 tanks. PT-76 tanks were also seen traveling south along the beaches. Naval gunfire was brought to bear on both columns. Four columns of black smoke along the beach gave testimony to the ships accurate gunfire.

Along Highway 1 the skies cleared and Vietnamese A-1 aircraft bombed and strafed the Russian tanks, destroying 11. One aircraft was hit by anti-aircraft fire forcing the pilot to bail out. Forces on both sides of the river stopped firing and watched as the parachute drifted to earth. Winds carried the pilot away from the Marines and to certain capture north of the bridge.

As a last desperate measure an order was issued to destroy the Dong Ha bridges. At approximately 1115 the lead enemy tank moved on the abutment on the north side of the Cua Viet. Marines took it under fire and struck it once with an M-72 anti-tank round. The tank, partially disabled, backed off and moved into a firing position north of the bridges. The U.S. advisor, 3rd Marine Battalion began to strategically implace 500 pounds of assorted explosives diagonally across the spans of the roadways. Under continuous fire by the swelling enemy infantry and tank forces, Capt John W. Ripley, USMC, miraculously moved unscratched through the intense enemy fire to place the demolitions. After two hours of preparations the explosives were charged and at 1630 Capt Ripley sent both bridges crashing into the Cua Viet River.

Stopped at the Dong Ha bridges, the enemy armored columns turned west toward the Cam Lo bridge complex. Accurate guns from *USS Bachanian, Strauss* and *Weddell* rendered these enemy movements ineffective. Throughout the night off shore guns rained hundreds of shells upon the enemy. "Danger close" targets within 300 meters of the Vietnamese Marines were common fire missions.

For three days FSB CARROLL, with its 22 artillery pieces, has been under constant artillery attack. By 1400, 2 April, enemy ground forces had moved within small arms range of the perimeter. At 1430 an emergency radio appeal from the U.S. Army advisor, 56th Regiment, requested extraction because his ARVN counterpart had elected to surrender. Before any action could be taken at



Northern I Corps, a battle area once known as "Leatherneck Square," was now the responsibility of the South Vietnamese.

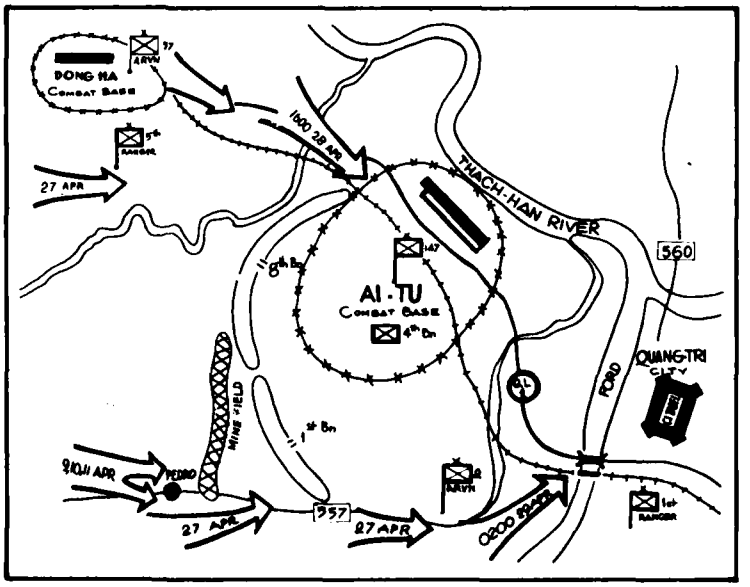
division level, an unknown CH-47 pilot, participating in the last resupply mission to MAI LOC, 3,000 meters to the south, took it upon himself to extract the advisory team. At 1440 a white flag was raised over FSB CARROLL and 1,500 ARVN soldiers were lost to the invaders. The sudden lull of enemy artillery gave mute testimony to the fact that the largest concentration of ARVN artillery in I Corps was lost to the North Vietnamese. This unique capitulation psychologically crushed the flickering hopes of many South Vietnamese units fighting across the northern front.

As the sun was setting on this wartorn day there were two brief moments of joy. The 4th Marine Battalion Alpha Group from FB SARGE, with Maj Walter E. Boomer, USMC, the battalion's senior advisor, had made contact with an aerial observer who guided them back to MAI LOC. Several hours later, at 1745, the 30 survivors of the 4th's Bravo Group from the siege on NUI BA HO passed quietly through the gate and rejoined their battalion. The 4th Marine Battalion was now accounted for.

FSB MAI LOC was next as the enemy artillery attacks became more intensive. The remaining radio antennas were shot away and direct communications with the 3rd ARVN Division was lost. Artillery ammunition was down to several hundred rounds with little chance of replenishment. At 1815 LtCol Bao, Brigade 147 commander, made the decision to abandon MAI LOC and march to Dong Ha. When the artillery storage bins were depleted and the last artillery round had been fired, incendiary grenades were placed in the tubes making all 10 guns useless to the enemy. Around 1900, with the 200 survivors from the 4th Battalion leading the way, the brigade column moved out under the cover of darkness. Hampered by rain showers, harrassed by the enemy guns, the column moved east. The brigade became separated while traversing several precarious stream crossings; however, by 0500 the next morning all units were again linked up. Later that morning the column reached Highway 1, near Dong Ha, turned south and reached AI TU at 1800 on 3 April. As the haggard and near exhausted Marines joined at the Brigade 258 command post, weary eyes became misty as comrades greeted each other. The familiar faces of over 300 Vietnamese Marines were gone forever but the brigades were together at last and this gave them the needed strength for the battles ahead.

During the first 78 hours of the Easter Invasion all major combat bases north and west of Dong Ha had fallen to the NVA invaders South Vietnamese forces had lost 53 artillery pieces and several thousand soldiers were missing or dead. Whole ARVN units were unlocated. FSB's PEDRO, AI TU, and Dong Ha Combat Base were the only remaining ARVN strongpoints north of Quang Tri. Most important, however, the main North Vietnamese invasion thrust was halted and the Communist army's time schedule for seizing Quang Tri City within seven days was disrupted. Vietnamese Marines paid a heavy price, but in doing so bought their government precious time. Time to reposition its forces, time to consolidate, time to act.

The period 3 to 8 April found the South Vietnamese forces maneuvering and strengthing positions around Quang Tri City while the 3rd Marine Battalion repulsed repeated enemy attempts to cross the *Cua Viet River* at Dong Ha. On 3 April the Republic's Joint General Staff ordered the Marine division headquarters and the rem-



Ai Tu Combat Base lay three kilometers northwest of Quang Tri City. Arrows denote direction and dates of enemy attacks.

Marines of 4th VNMC Bn board USMC helicopters near Tan My, 24 May 1972.

nants of the brigade airlifted to the battle area. Division headquarters moved into the Hue Citadel while Brigade 369 set up in a new AO around FSB's NANCY and JANE. At this time the Commandant of Marines had not received operational control of the full Division as Brigades 147 and 258 were still OPCON to the 3rd ARVN Division.

Shortly after midnight on 9 April the NVA massed their artillery and began shelling AI TU with 130mm guns. The heavy pounding continued throughout the night. Just before dawn the 6th Marine Battalion around FSB PEDRO reported heavy ground contact. At 0645 first two, then seven and finally 16 enemy tanks supported with two battalions of infantry advanced on the fire support base. Marine artillery batteries quickly brought accurate fire to bear on the enemy, stalling the infantry attack. At 0715, several enemy tanks advanced, with two T-54's breaching the perimeter. These immediately began crushing all bunkers as the few Marines within the wire withdrew toward AI TU. A nearby platoon outpost was overrun and all Marines were killed by gunfire or crushing tank actions. The other T-54's held their positions around PEDRO, waiting for their infantry to move up. When the T-54's had completed their destruction they moved on toward AI TU. The 6th Battalion commander had his OP on a small knoll. The two tanks maneuvered toward it. The lead tank struck an anti-tank mine and was disabled. The second moved around his burning mate and continued on to within 50 meters of the 6th's Command Group. The tank stopped, rotated its main gun but did not fire.

Earlier when the first report of an impending tank and infantry attack had been received at Brigade 258, LtCol Dinh began assembling a reaction force. The lead ARVN M-48 tank of the reaction force moved into a firing position just as the enemy T-54 ground to a halt at the 6th's OP. A brief tank battle ensued and the enemy tank was destroyed. Approximately 30 minutes later the 6th was reinforced by two infantry companies of the 1st Battalion and an ARVN tank and APC armor force of 20 vehicles. A counterattack was launched toward PEDRO. As this force deployed a Vietnamese Air Force flight of four A-1 aircraft came on station. This Vietnamese air-ground team began to systematically destroy the enemy. The heavy bombardment from Marine 105mm howitzers forced the enemy infantry to abandon the area and withdraw toward the Ba Long Valley. Within two hours 13 of 16 T-54 tanks had been destroyed by mines, tank fire, air strikes and Marine infantry weapons. Of the remaining three, one withdrew, two were deserted by their crews during the battle. Both captured tanks were proudly driven by Marines back to AI TU as war trophies.

The first enemy tank-infantry assault on PEDRO was repulsed with the enemy leaving 157 dead on the battlefield. Succeeding enemy attacks came on 10 and 11 April, again the enemy was beaten back with 211 dead NVA left behind. Captured documents later revealed the enemy had launched an infantry regiment and a tank battalion against the Marine western front. Their mission was to take both PEDRO and AI TU and attack the southern flank of the Dong Ha defenses. This three-day battle accounted for the defeat of a major drive to bisect the vital Quang Tri defensive line which would have destroyed the remaining effectiveness of the 3rd ARVN Division's northern front. More significantly however, this battle allowed Marine infantry units to discover that they could meet and defeat Russian armor with their organic anti-tank weapons. Russian armor had lost its psychological shock effect on the Vietnamese Marines.

The invading North Vietnamese divisions continued to press their attacks toward Quang Tri City with enemy armor and infantry forces using the Cam Lo bridge as their primary crossing point.Once South of the Cam Lo-Cua Viet River,

NVA units moved on Dong Ha from the West. Other enemy forces moved south, passing FSB CARROLL and MAI LOC, on toward Route 557 and FSB PEDRO.

On 23 April, Brigade 147, with 4th and 8th Infantry and the 2nd Artillery Battalion returned to AI TU from a rest and refitting period in Hue. Brigade 258 deployed to Hue. The 1st Battalion remained at FSB PEDRO and changed OPCON to Brigade 147.

At that time the 4th and 5th Ranger Groups and the 57th ARVN Regiment were located to the North of AI TU and around Dong Ha. On the southern flank of the 1st Marines stood elements of the 2nd ARVN Regiment. The 2nd's AO extended south from AI TU to the Thach Han River and east to Highway 1. Across the Thach Han on the south bank was the 1st Ranger Group.

During the night of 26 April the 3rd ARVN Division issued a warning of an impending attack by the 304th NVA Division. At 0630 a red double star cluster signaled the enemy attack. All ground attacks were launched under the protective cover of intensive artillery fires. The 1st Battalion which was now positioned 2-3,000 meters south of AI TU also came under a heavy 82mm mortar attack. The battalion beat back two ground attacks. The 8th Battalion had little ground contact across their front at this time, but discovered enemy in their rear area that was to have been secured by an ARVN Battalion. During the day both the 1st and 8th Battalions repulsed tank and infantry attacks destroying 12 Russian tanks in the process. At dusk the Marine defense line was straightened as the 1st and 8th were pulled back to within 1-2 kilometers of AI TU. Shortly after dark, enemy artillery fire struck an ammunition dump; most of the stocks were destroyed.

By 28 April the enemy pressure on the Ranger Groups in the Dong Ha area caused all ARVN forces North of AI TU to fall back along Highway 1 toward Quang Tri. By night fall the Ranger's defensive line was tied in with the 8th Marine Battalion at AI TU, and eastward to the river. The 57th ARVN Regiment, in full rout, retreated through this defense line into Quang Tri City. The 2nd ARVN Regiment still held the line southwest of the Quang Tri bridges.

At 0200 on 29 April the enemy launched a tank-infantry attack around the south end of the Marine minefield on the 2nd ARVN's front along the Thach Han. The attack rolled up the southern flank of the ARVN forces on the west side of the river and penetrated up to the Quang Tri bridges. U.S. tac-air was called in and, working under flares, destroyed three of the enemy tanks. By morning enemy forces remained in control of the west side of the Quang Tri bridges. Two companies of the 7th Battalion, which had arrived at AI TU the night before, reopened the highway to the city by killing 12 NVA in the bridges' west defensive bunkers.

Throughout the day the defensive situation across the river from Quang Tri City deteriorated. Late that afternoon the AI TU ammunition dump was again hit by artillery and the remaining stocks went up in flames. Ammunition for the Marine howitzers became critical as the battalion's guns had less than 1,000 rounds on position.

Marines of 7th VNMC Bn en route to U.S. Navy ships that transported them to their first amphibious landing at Wunder Beach.

The NVA continued to exert pressure on Ai Tu. The Ranger Group holding at the east of the 8th Marine Battalion fell back and withdrew into Quang Tri City. Brigade 147 was now almost encircled. At noon on 30April the 3rd ARVN Division ordered the Marines to withdraw from Ai Tu and return to the Citadel to provide a defensive force around the city. The withdrawal plan called for the brigade headquarters and the 2nd Artillery Battalion to depart first. Followed by the 1st Battalion; the 8th would follow in trace from the Western flank. The 4th Battalion would close the column as the rear guard.

The plan was executed smoothly, with the exception of the 18 artillery pieces and their prime movers. As the Marine brigade was moving on the city, ARVN engineers prematurely destroyed both bridges over the Thach Han River. Attempts were made to tow the howitzers across at a fording site, but due to a soft bottom and currents this failed. Thus it was necessary to disable and destroy the howitzers and 22 prime movers. The infantry battalions crossed the river and took up defensive positions around the city as Brigade 147 set up its command post beside the Citadel walls.

At 1215, 1May, the 3rd ARVN Division advised all units in Quang Tri that the city would undergo a 10,000-round artillery barrage starting at 1700. Military units were ordered to evacuate the city. No orderly withdrawal plan was promulgated. The 27 maneuver battalions under the OPCON of the 3rd ARVN Division were released to fend for themselves. During the afternoon three CH-54 helicopters landed at the Citadel and extracted the ARVN division staff and their U. S. advisors. The last remaining shreds of unity dissipated. The strain and shock of 30 days conventional warfare on ill prepared troops had unraveled the already thin fabric of unit discipline and effectiveness. A frightened mass of humanity moved like a rampant tidal wave onto Highway 1 and south toward Hue, 50 kilometers away. Highway 1, south of Quang Tri, was interdicted by enemy artillery and had been periodically closed by enemy infantry units since 29April. The roadway was one of incredible destruction. Burning vehicles of all types, trucks, armored vehicles, civilian buses and cars filled the highway forcing all traffic off the road to the east. Tracked vehicles explored crosscountry routes as hundreds of civilians were subjected to enemy artillery barrages. Marine Brigade 147, which had its USMC advisors and retained its unity, moved out of the City at 1430. The column was composed of over 30 armored vehicles and four Marine battalions. As the brigade moved south it was joined by large numbers of ARVN soldiers and civilians. As dusk fell the column was halted by an estimated NVA regiment just west of Hai Lang. In addition, the Marine column had become so fragmented by intermingling civilians and ARVN stragglers that effective unit control became difficult.

By late afternoon on 2May the carnage was complete. The number of civilians killed fleeing Quang Tri Province will never be known, but estimates place it in the thousands. Somehow several ARVN units and Marine Brigade 147 managed to maintain some order in the midst of hysteria and fought their way to a new Marine Defense Line.

Marine Brigade 369's defensive lines had been located to the south of Hai Lang along the O'Khe and My Chanh Rivers since deploying north from Saigon. The two bridges crossing these rivers along Highway 1 had to be held if the withdrawing troop and civilians were to successfully move south. On 2May a pre-dawn, hour-long, intensive enemy artillery barrage struck the two bridge sites. At first light elements of an NVA regiment supported by 18 tanks assaulted the O'Khe Bridge area, held by the 9th Marine Battalion. The battle raged through the morning hours and although five tanks penetrated the defensive perimeter all were destroyed. The enemy, unable to break through, left 17 burning tanks along with several hundred dead infantry on the battlefield. By dusk Highway 1 north of the O'Khe was void of movement as the enemy closed off all routes of escape. Brigade 369, commanded by Col Chung, had completed its mission as a rear guard force and withdrew south of the My Chanh and redeployed.

The My Chanh line and counter-offensive

As darkness fell on 2May, South Vietnam's future looked bleak. Near Saigon there were NVA tanks in An Loc; west of Hue FSB BASTOGNE had just fallen and to the north all of Quang Tri Province had been lost. The invaders had declared Quang Tri City their Provincal Capital in the South. There was a national atmosphere of desperation, yet a prevailing feeling of grim determination to drive out the Communists. The South Vietnamese Government responded with changes in the military command structure and a new Order of the Day—there would be no further withdrawals. The full test of Vietnamization had come. For Marines, the My Chanh Line would be their decisive battlefield.

After Brigade 147 withdrew past the My Chanh River it returned to Hue for rest, replacements and refitting. All three Marine brigades and the three artillery battalions had experienced losses of men and equipment during the first five weeks of the invasion. Material combat losses were quickly identified and through the U.S. advisory channels requests for replacements were transmitted to HQMC. In less than 30 days over 80 percent of the initial equipment losses had been replaced. Trucks flown from Okinawa, were hitched to 105mm howitzers airlifted from

Gen Bui The Lan, Commandant of the Vietnamese Marine Corps, and Col J. W. Dorsey, senior Marine advisor, with U.S. Army officers at VNMC Division command post at Huong Dien.

Barstow, California and rushed north to the war zone. Every C-141 or C-5A that landed at Danang Air Base demonstrated that although the U. S. Marines were out of country, they were dedicated to providing full logistical support to the Vietnamese Marines through their most trying period. It was an overwhelming confirmation, and did much to rekindle the spirits of Marines along the My Chanh.

On 4May, President Thieu appointed LtGen Khanh to the Joint General Staff as assistant for operations. This marked the first time a Vietnamese Marine officer had ever held such a high military office. Col Bui The Lan, Gen Khanh's deputy, was appointed as the new Commandant of Vietnamese Marines.

For the first time since the Easter Invasion began the Marines were assigned their own division area of operations. Their battle line was the northern front, extending from the Gulf of Tonkin on the East, 18 kilometers westward, across Highway 1 and into the foothills. Five infantry battalions were initially positioned along the My Chanh Line. As they were digging in, North Vietnamese units spirited by fresh successes at Ai Tu and Quang Tri City, began to probe the line.

On 5May, Brigade 258 moved forward from Hue to Phong Dien and assumed responsibility of the western half of the division's My Chanh line. On 12May, Brigade 369 was repositioned on the east flank. At the same time the NVA was building up its forces for an all out attack on the ancient capital of Hue.

Col Lan and Col Joshua W. Dorsey III, USMC, senior advisor, began to develop plans for putting the Marine division on the offensive. Under the planning guidance of its Commandant, an immediate counter offensive by Vietnamese Marines across the division front was begun. As an initial step a helicopter assault would be made into the Hai Lang Village area. Utilizing U. S. Marine Corps helicopter assets from the Ninth Marine Amphibious Brigade, two Vietnamese infantry battalions were helilifted into adjoining landing zones around Hai Lang. One CH-53 was lost to enemy ground fire. The enemy was tactically surprised with over 240 NVA killed by the assaulting Marines and their supporting arms.

The North Vietnamese, momentarily set back by the vertical assault in their rear, responded with a major armor and infantry attack. On 21May, the NVA moved his forces south on Route 555 and crossed the My Chanh, striking into Brigade 369's AO. Hearing the armor approaching, regional forces along the line fell back, allowing the enemy to almost encircle the 3rd and 9th Battalions. Both units were forced to withdraw, but after intense fighting that lasted throughout the day the Marines had reestablished their defense line back on the My Chanh River. Casualties among the Marines were high, but the enemy suffered heavier losses including the destruction of seven PT-76 and T-54 tanks.

At 0100, on 22May the 3rd Battalion was again attacked by a large infantry force accompanied by 22-25 tanks. The 3rd Battalion destroyed eight tanks by artillery and M-72's before being overrun by numerically superior forces. The enemy force continued his penetration and moved on Brigade 369's command post, attacking at first light. Five of the enemy's armored vehicles were stopped within 400 meters of the brigade CP. An artillery battery, 200 meters further south literally bore-sighted one gun to stop a PT-76 tank at 140 meters from the battery position. Also, the newly introduced TOW Guided Missile system destroyed a PT-76 tank with the first round ever fired in combat. Vietnamese Marines, observing the TOW missile glance off a radio antenna, change its deflected course, stopped shooting and cheered as the Russian tank was enveloped in flames. The armored attack was finally repulsed, as 10 tanks and APC's were destroyed. At 0930 the 8th Battalion conducted a counterattack

Captured enemy tanks displayed at VNMC boot camp, Thu Duc, on the Vietnamese Marines' 18th Birthday, 1 October 1972.

that broke the infantry assault. The enemy fled leaving their dead and wounded behind them. For the NVA the cost was extremely high and nothing was gained. The My Chanh Line was restored by nightfall.

Even as this attack was under way, another counter-offensive operation was being planned. On 23May, the 7th Marine Battalion was trucked to Tan My, where they boarded U.S. Navy landing craft and embarked aboard ships of the Seventh Fleet. Early the next morning the Marine division conducted a combination amphibious landing and heliborne assault in the Wunder Beach area of Quang Tri Province. The operation, Song Than 6-72, was conducted by Brigade 147 and required close coordination with the Ninth MAB, U.S. Navy amphibious shipping, naval gunfire support and B-52 arclight strikes. Col Lan, his G-3 operations officer LtCol Ky, and a small staff coordinated their multi-assault force from on board the CCL-19, *Blue Ridge*. In many ways it was a history making event, as the Vietnamese Marine Corps planned and executed its first assault from the sea. A B-52 arclight strike thundered across the beach area just as the leading wave of LVT's approached the 2,000 meter off-shore mark. Shortly thereafter, the 7th Marine Battalion moved ashore in two waves of 40 amphibious tractors and landed under enemy 82mm mortar fire. The beachhead was seized. As the USMC tractors turned and went back to sea, the Vietnamese Marines moved over the sand dunes out of sight. An hour later, again following B-52 strikes, the 6th and 4th Infantry Battalions aboard USMC helicopters were lifted into two landing zones near the junction of Routes 555 and 602. Both battalions landed on time and seized initial objectives against light resistence. For the second time in a month a major offensive operation had been successfully executed by the Marine division. The North Vietnamese Army had suddenly discovered its sea flank was vulnerable to the varied tactics of the Marines. Song Than 6-72 ended on 31May, as all battalions returned to the My Chanh Line.

At 0530 on 25May, the NVA switched back to the western flank of the Marine division's AO and launched attacks at Brigade 258's western units. For three consecutive days, the enemy infantry deployed in their daylight attacks prematurely allowing artillery and other friendly supporting arms to be employed with excellent results. Early on the 26th, the 1st Regiment received its heaviest attack as a reinforced enemy battalion was committed to breaking the My Chanh Line. One element of the enemy force almost succeeded in reaching the battalion command post. Ultimately, the attack failed, for by mid-morning, the NVA forces had broken contact, leaving over 200 enemy bodies on the battlefield and stacked around the battalion CP. Two weeks of continuous fighting and heavy losses caused the 66th and 88th NVA Regiments to temporarily retire from the battle area. During May over 2,900 enemy had been killed, 1,080 weapons captured and 64 armored vehicles destroyed or captured.

The month began with chaos above My Chanh, but ended with a strong northern front anchored by the Vietnamese Marine division. The My Chanh Line had been subjected to tremendous pressures and although it bent at times, it was never broken. This was due to responsive supporting arms fire plans, excellent small unit leadership and the courage and tenacity of individual Vietnamese Marines. It was a good month for Marines. On 28May, on the Emperor's Walkway in front of the Old Imperial Palace of the ancient capital of Hue Citadel, President Thieu personally promoted Col Lan to brigadier general.

During June the Vietnamese Marines seized the initiative and began a series of limited offensive operations. The first week there was little ground action. On 8June, Song Than 8-72 was

launched as all brigades advanced north from the My Chanh Line. The Marines, moving forward behind a well coordinated fire support plan of B-52 strikes, tac-air, naval gunfire and artillery, encountered the heaviest resistence along the coast and Route 555. The operation ended successfully with all brigades having a foothold in southern Quang Tri Province. The Marines lost only nine men while accounting for over 230 enemy killed, 102 weapons and seven tanks or APC's destroyed.

With South Vietnamese forces north of the My Chanh River, ARVN engineers constructed pontoon bridges so armored vehicles could cross back into Quang Tri Province and support the attacking infantry. The tide of battle was slowly, but definitely, turning in favor of the South Vietnamese forces. Another Marine operation, Song Than 8A-72, began on 18June. The 6th and 7th Battalions moved northwest paralleling the beach. The 7th met only light resistance along the coast. Again the heaviest resistance was encountered along Route 555; a roadway more commonly known to U.S. Marines as "Triple Nickel." Enemy tanks and infantry counter-attacks against the 6th Battalion were ineffectual and poorly coordinated, as the NVA still had not been able to organize its armor and infantry units into any semblance of a team effort. With each sighting of tanks, Marine artillery was quick to bring its guns to bear on the enemy armor. (Both Chinese armored personnel carriers and Russian tanks are manufactured with their gasoline tanks on the outside of the vehicle; therefore it is not necessary to achieve a direct hit to disable or set them on fire.) Marine artillery learned to mass its fires on enemy armor and to exploit this basic weakness.

Marines raise victory flag over Quang Tri City.

By 27June the Marine division had pushed the NVA back four kilometers from the My Chanh River. Song Than 8A-72 was completed with 761 enemy killed and eight more tanks destroyed.

June ended with the Vietnamese Marine Corps at its peak combat strength. The infantry battalions were at their highest level ever. In addition, the VNMC recruit training center was operating at maximum capacity, and Marine recruiters had men waiting to enter the Corps. The division's logistical posture was also excellent; almost all the earlier combat losses had been replaced.

I Corp's counter-offensive, Sont Than 9-72, with the mission of destroying the North Vietnamese Army and recapturing Quang Tri City, began on 28June. This was a coordinated two division attack with the Marines operating generally between the coast and Highway 1. The airborne division maneuvered from the Marines left flank west to the Anamite foothills. Quang Tri City was included in the airborne division's AO. Song Than 9-72 was in full swing, as the month ended, and the NVA were on the defensive in all sectors of the I Corps front. During June, 1,515 enemy were killed, 18 armored vehicles were destroyed. The captured column registered 15 POW's, 4 armored vehicles and 550 weapons. Slightly over 150 Vietnamese Marines lost their lives during June.

Throughout July the Marines remained in heavy contact, as 1,880 enemy were killed in action. Enemy material losses were equally heavy as Marines destroyed or captured 51 armored vehicles, seven Russian 37mm anti-aircraft guns, four artillery pieces, a 20-ton ammunition dump and over 1,200 individual weapons.

On the morning of 11July, the 1st Vietnamese Marine Battalion was helilifted by 28 USMC helicopters into a landing zone 2,000 meters directly north of Quang Tri City. Its mission was to block Route 560 and prevent the enemy from resupplying his units in the Citadel. U.S. Army Air Cavalry gunships led the helicopter waves into the landing zone. Even though the objective area had been struck by extensive preparatory fires, most of the helicopters were hit by enemy ground fire. One CH-53 was struck by an SA-7 heat seeking missile, causing it to burst into flames, killing a full load of Vietnamese Marines.

To secure his tenuous position, Maj Hoa, the battalion commander, personally led his battalion in an assault against the well entrenched enemy. Two more trench lines had to be seized before the perimeter was secure. A USMC naval gunfire spot team officer was hit almost immediately after leaving a helicopter. Capt Lawrence H. Livingston, USMC, the battalion advisor, left his position beside Maj Hoa and moved across the fire-swept rice paddies to carry the wounded lieutenant to safety. Cpl Jose F. Hernadez, USMC, the spot team radio operator, also braved enemy fire to help wounded Vietnamese Marines to safety. He then commenced to call in naval gunfire missions to prevent the NVA from reinforcing. Over 100 Marines lay wounded, but medical evacuation was impossible as the enemy had interdicted the LZ with artillery, mortar and anti-aircraft fire. Three days of heavy fighting were required to permanently close off the enemy's main supply route into Quang Tri City. With the line secure, the first med-evac's were finally accomplished on the evening of 14July.

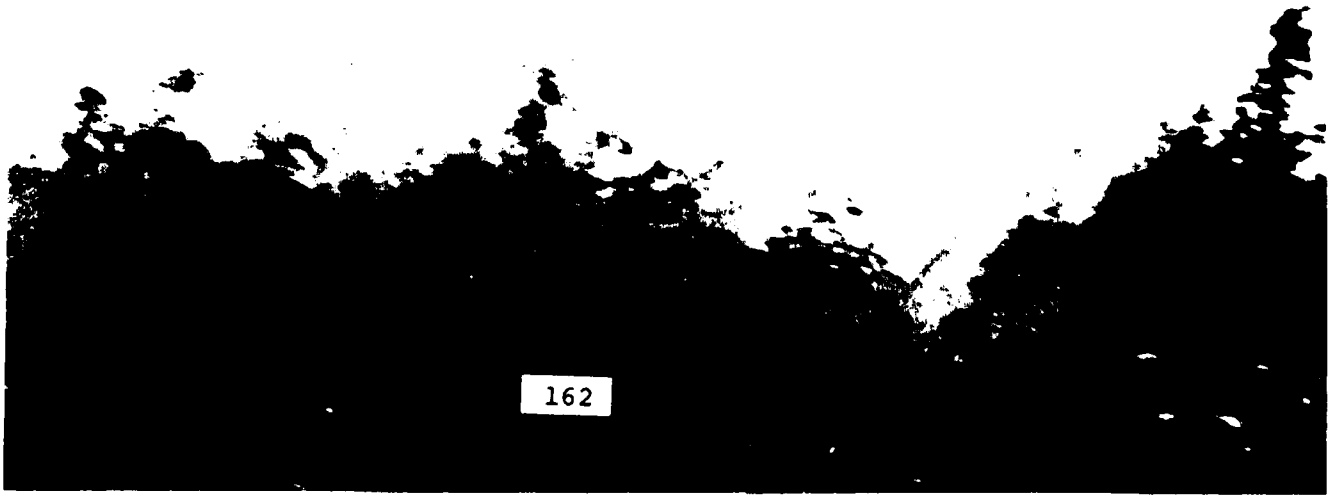
On 22July, another heliborne assault was executed along the coast line about 10 kilometers northeast of Quang Tri City. Again USMC helicopters with the 5th Vietnamese Marine Battalion, landed behind the NVA's main line of resistance. No planes were hit and only moderate contact was encountered in the landing zone. As events turned out this was the last U.S. Marine Corps-supported heliborne operation of the Vietnam War.

The airborne division, keeping abreast on the left flank of the Marines, entered Quang Tri City in early July. But, exhausted and depleted from previous battles at An Loc and the Central Highlands, they could not recapture the City. After several weeks of heavy casualties and limited progress by the paratroopers, the Marine division was ordered to relieve the airborne division and retake Quang Tri City. Brigade 258 received the mission and the in-place relief was completed at 2130, 27July. Prior to relief, the nearest airborne unit was still 200 meters from the Citadel walls. The last four days of July were devoted to extensive artillery preparation fires on the city, while the enemy countered with substanially increased artillery of its own.

Throughout August, the enemy kept heavy pressure on Brigade 147, just north of the city, as the brigade continued to block Route 560. All enemy supplies entering the city now had to be ferried across the Thach Han River. During the month, Brigade 147 was in contact with all three regiments of the 325th NVA Division, as well as the 27th Independent Regiment. August also found Brigade 258's four infantry battalions devoted to heavy house-to-house fighting around the Citadel. The 3rd Battalion was attacking from the northeast, the 9th and 6th from the southeast and the 1st from the southwest. The enemy kept an almost continuous artillery and mortar barrage falling on the Marine battalions. Over 720 attacks by fire, exceeding 50,000 rounds, struck friendly positions in and around the city. While little progress was gained on the ground, the Vietnamese Marine Corps inflicted heavy casualties in some of the hardest fighting of the war. There were 2,322 enemy killed during the month. However, after 30 days of slow progress, it was apparent that more combat power would be needed to wrest the city from elements of three NVA regiments. Thus, on 8September, the 1st Ranger Group's three battalions relieved Brigade 147 of its blocking positions north of the City. This enabled Gen Lan to employ two Marine brigades in a direct assault on Quang Tri City. Brigade 258, with its four battalions, continued its attack from the south and southwest. Brigade 147, with the 3rd and 7th Battalions, attacked from the northeast. On 9September, the final assault on Quang Tri City began. Intensive artillery and tactical air preparations fire were placed on the Citadel and adjacent parts of the city. LtCol Tung, commanding officer, 6th Marine Battalion, set up his forward command post 300 meters south of the southeast corner of the Citadel and there, observing through a small hole in the second floor wall, the USMC advisor coordinated and adjusted over 200 sorties of tac-air on the Citadel.

During the night of 9-10 September a small squad of Marines from the 6th Battalion slipped in and out of the Citadel. Early on the 11th a platoon from the 6th moved over the southeast corner of the wall. The enemy continued to resist fanatically, but the massive supporting arms fires and air strikes, steadily crushed its will to fight. At dawn on 15September, the 3rd Battalion moved over the northeast corner and joined with the 6th Battalion to clear the east wall of the ancient fortress. Together, they turned west and began to clear the 500 meter-square Citadel. Marines of these battalions, unable to hold back their exuberance, shouted with joy as they swept across the rubble and seized the western wall of the Citadel. At 1700, the Citadel was cleared and in complete control of the Marines. All other enemy resistance collapsed. Quang Tri City was returned to RVN control.

In seven weeks of fanatical fighting, under the unrelenting shelling of enemy artillery and mortars, one of every five Marines had become a combat casualty. South Vietnamese Marines had climbed their mountain. At 1200, 16September, they raised their nation's scarlet and gold flag over the western gate of the Quang Tri Citadel and, in so doing, gave signal to the world that the South Vietnamese could more than stop the aggressors, they could soundly defeat them. Vietnamese Marines, short in stature, rich in courage, and full of determination, stood tall in the eyes of all Marines. USMC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Marine Aviation in Vietnam, 1962-1970

By Lieutenant General Keith B. McCutcheon, U. S. Marine Corps

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On the preceding pages, a Marine F-4B Phantom drops a 500-pound bomb on Viet Cong trenches concealed in a tree line south of Da Nang. Close air support missions, which Marine Corps pilots were performing before and during World War II; "vertical envelopment," which Marine Corps helicopter pilots perfected during the Korean Conflict; and the SATS—short airfield for tactical support—concept, which the Corps pioneered after Korea, were three of the major contributions to the defense of I Corps made by Marine aviation during its service in Vietnam. To get the most out of the Da Nang area rain chart on the opposite page, it is helpful to know that Washington, D.C. averages three or four inches of rain a month.

The Beginning

Marine Corps aviation involvement in Vietnam began on Palm Sunday 1962, when a squadron of UH-34 helicopters landed at Soc Trang in the Delta. The squadron was Marine Medium Helicopter Squadron 362 (HMM-362), commanded by Lieutenant Colonel Archie J. Clapp.

Three U. S. Army helicopter companies were already in Vietnam, and the Secretary of Defense had approved deployment of one more unit to Vietnam. The Marine Corps seized this opportunity to fly toward the sound of the drums and offered to send a squadron. They recommended Da Nang as the area of operations, since it was that area to which Marines were committed in various contingency plans. The Commander, United States Military Assistance Command, Vietnam (ComUSMACV), decreed, however, that the need at the moment was in the Delta since that Vietnamese Army corps area was the only one of the four corps areas in Vietnam that did not have any helicopter support.

Colonel John F. Carey was the commanding officer of the Marine task unit of which HMM-362 was a part. He arrived at Soc Trang on 9 April, and over the ensuing five days an element of Marine Air Base Squadron 16 (MABS-16) arrived aboard Marine KC-130 aircraft from the Marine Corps Air Facility at Futema, Okinawa. Squadron HMM-362, augmented by three O-1 observation aircraft, embarked in the *USS Princeton* (LPH-5) at Okinawa and arrived off the Mekong Delta at dawn on Palm Sunday, 15 April. The squadron's helicopters completed unloading the unit's equipment and were ashore by late afternoon. The Marine task unit which was to be known as "Shufly" was established ashore.

The mission of this unit was to provide helicopter troop and cargo lift for Vietnamese Army units and its first operation was one week later, on Easter Sunday. The squadron continued to operate until August when it was relieved by HMM-163, commanded by Lieutenant Colonel Robert L. Rathbun.

In September 1962, the Marines were ordered by ComUSMACV to move to Da Nang, the high threat area, an area with which Marine planners had become well acquainted in contingency plans, war games, and advanced base problems. Some had been there before. In April 1954, Lieutenant Colonel Julius W. Ireland had landed at Da Nang airfield with Marine Attack Squadron 324 (VMA-324) and turned over twenty-five A-1 propeller driven dive bombers to the hard-pressed French. Now he was back as a colonel. He had replaced Colonel Carey as the commander of "Shufly."

The Marines initially occupied two areas on the air base. The helicopter maintenance and parking area was southeast of the runway. The billeting area was across the base on the western side, about two miles away. In those days there was not much traffic at Da Nang, so the Marines got into the habit of driving across the runway as the shortest route to commute back and forth. Four years later, this would be one of the two or three busiest airfields in the world.

In late 1964, the runway was extended to 10,000 feet, and a perimeter road, half surfaced and half dirt, was built around the base.

The Land and the Weather

Da Nang is the second largest city in Vietnam and the largest in the Vietnamese Army's I Corps Tactical Zone, commonly called I Corps and abbreviated as ICTZ. By 1970 Da Nang would have a population of approximately 400,000. An exact count is impossible because of the influx of war victims and refugees. ICTZ[1] consists of the northernmost five provinces of Vietnam: Quang Tri, Thua Thien, Quang Nam, Quang Tin, and Quang Ngai. The length of ICTZ is about 225 miles, and its width varies from 40 to 75 miles. Da Nang is approximately in the center of the north-south dimension and is on the coast. Hue, the next largest city, with a population of about 200,000, is roughly halfway between the Demilitarized Zone (DMZ) and Da Nang. Hue, the old capital of Annam, is inland a few miles on the Perfume River. About halfway between Da Nang and the southern boundary of I Corps is a sandy area on the littoral of the South China Sea that came to be known as Chu Lai.

Called Tourane by the French, Da Nang sits on a fairly large bay which provides a roomy, if not particu-

[1]The Corps Tactical zones were redesignated as Military Regions in July 1970. ICTZ became MR1.

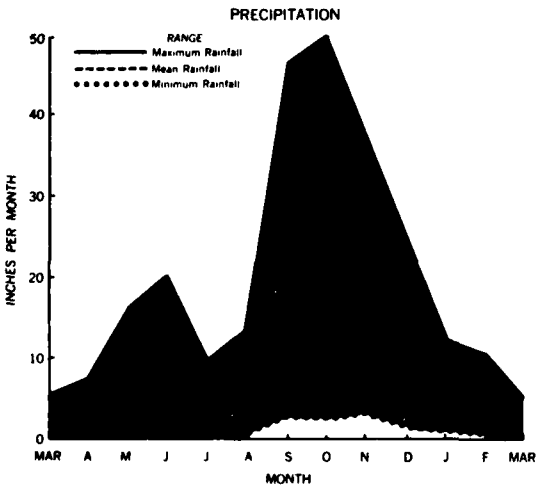
larly safe, deep water harbor and anchorage, although in 1965 it had few facilities to unload ships in any numbers. To the north of the bay are the Hai Van Mountains, called "Col des Nuages" by the French, which stretch eastward from the Annamite Mountain chain to the sea. These mountains are an important factor in I Corps weather and, in fact, form a barrier which can cause one side to be under instrument flight rule conditions and the other side under visual flight rule conditions.

East of Da Nang, across the Song Han River, is the Tien Sha Peninsula that juts past the city to provide a large breakwater for the bay. At the end of the peninsula is a massive 2,000-foot hill known as Monkey Mountain.

The terrain in I Corps rises as you move inland from the Coast. In general, there are three broad regions: the coastal lowlands where rice paddies abound, and there 85 per cent of the three million people live; the piedmont area of slightly higher ground which permits cultivation of other crops, and which is home for most of the remainder of the people; and the hill country, or Annamite chain. These mountains go up to 5,000 feet and higher, some rather precipitously. For the most part they are heavily forested and in places there is a triple canopy which makes observation of the ground impossible.

Running generally from west to east, from the high ground to the sea, is a series of rivers and streams which follow the valleys and natural drainage routes. They are generally unnavigable except for small, oar-propelled, shallow draft boats, but they do offer routes from Laos to the provinces.

The northeast monsoon begins in October and ends in March. September and April are more or less transition months. Rainfall increases in September and October, and by November the northeast monsoon is well established over ICTZ. Weak cold fronts periodically move southward and usually there is an increase in the intensity of low level winds (rising sometimes 20 to 50 knots). This is called a "surge." The "surge" causes ceilings of 1,000 to 1,500 feet with rain, drizzle, and fog restricting visibility to one or two miles. Occasionally the ceiling drops to 200 feet and the visibility to half a mile. After the initial "surge" has passed, the winds begin to decrease and the weather will stabilize with ceilings of 1,500 to 2,000 feet prevailing. Visibility will fluctuate from seven miles or more to three miles or less owing to intermittent periods of fog or precipitation. Cloud tops are seldom above 10,000 feet.



The kind of weather just described was called "crachin" by the French. It can prevail for a few days at a time early in the monsoon season or for several weeks during the high intensity months. As winds decrease, the weather generally improves. When the lower level winds decrease to less than ten knots, or if the wind shifts from the northeast to a northwest or a southerly direction, a break in the weather is usually experienced. Such a break will result in scattered to broken clouds with bases at 2,000 to 3,000 feet and unrestricted visibility and may persist for a week before another "surge" develops.

During December, the monsoon strengthens, and in January, when the Siberian high pressure cell reaches its maximum intensity, the northeast monsoon also develops to its greatest extent. Little change can be expected over ICTZ in February, although "surges" are generally weaker and more shallow than in January. By mid-March the flow pattern is poorly defined and the monsoon becomes weak. During April, traces of the southwest monsoon begin to appear and there is a noticeable decrease in cloudiness over the area. From then through August, the weather in ICTZ is hot and humid, with little rainfall.

The northeast monsoon had a direct impact on all military operations in ICTZ and especially on air operations. Because they can operate with lower ceilings and visibility minimums than fixed-wing aircraft, the helicopters would often perform their missions when the fixed-wing could not, at least along the flat coastal region. Inland, however, the hills and mountains made even helicopter flying hazardous at best. The pilots all developed a healthy respect for the northeast monsoon.

Early Days at Da Nang

HMM-163 was relieved by HMM-162 in January 1963. Over the next two years other HMMs followed: 261, 361, 364, 162 for a second time, 365, and, finally, 163 for its second tour. Halt the Corps' UH-34 squadrons had received invaluable combat experience before the

commitment of the Marine Corps air-ground team of division-wing size.

In April 1963, an infantry platoon from the 3d Marine Division (3dMarDiv) was airlifted from Okinawa to join "Shufly." Its mission was to provide increased security for the base. In a modest way, the air-ground team was in being in Vietnam.

Brigadier General Raymond G. Davis, Commanding General of the 9th Marine Expeditionary Brigade (9thMEB), flew to Da Nang in August 1964, shortly after the Tonkin Gulf affair, and completed plans to reinforce the Marines based there in the event of an emergency. He then joined his command afloat with the Amphibious Ready Group of the Seventh Fleet. This Group was to be on and off various alert conditions for some months to come.

Early in December 1964, "Shufly" received a new title

A division of H-34D helicopters of HMM-362, the first Marine Corps helicopter squadron assigned to Vietnam, transported Vietnamese troops on a strike mission against Viet Cong positions in the Mekong Delta in May 1962. Unlike the aircraft of the three Army helicopter companies then in Vietnam, HMM-362 helicopters lacked installed machine guns; their only weapons were the "greasegun" submachine guns carried by the copilot and crew chief.

by direction of Lieutenant General Victor H. Krulak, Commanding General of the Fleet Marine Force, Pacific (FMFPac). It was now called Marine Unit Vietnam, or MUV for short.

Another aviation unit began arriving at Da Nang on 8 February 1965. This was the 1st Light Anti-Aircraft Missile (LAAM) Battalion, commanded by Lieutenant Colonel Bertram E. Cook, Jr. The battalion was equipped with Hawk surface-to-air missiles. Battery "A," commanded by Captain Leon E. Obenhaus, arrived by air and was established on the base just to the west of the runway. Within twenty-four hours it was ready for operation. The remainder of the battalion came by ship from Okinawa, arriving at Da Nang later in the month. This battalion had been sent to Okinawa in December 1964, from its base in California, as a result of ComUSMACV's request for missiles for air defense. The decision was made to retain the unit on Okinawa instead of sending it to Vietnam, but when the Viet Cong attacked Pleiku on 7 February, the United States retaliated with an air strike in North Vietnam. An order to deploy the Hawks to Da Nang was made at the same time. As in the case of Cuba in 1962, when a crisis situation developed, Marine missile units were among the first to be deployed.

By this time MUV was pretty well established on the west side of the Da Nang air base in an old French army compound. Colonel John H. King, Jr., was in command. The helicopters were moved from their first maintenance and parking area, and were now located on the southwest corner of the field. A rather large sheet metal lean-to had been made available by the Vietnamese Air Force (VNAF) to serve as a hangar. The parking apron was blacktop and was adequate for about two squadrons of UH-34s.

Buildup

Late in February 1965, President Johnson made a decision to commit a Marine brigade to protect the air base at Da Nang from Communist attack. On 8 March the 9thMEB, including the 3d Battalion, 9th Marines, was ordered to land. They had been afloat and ready for such an operation for several months. Brigadier General Frederick C. Karch was then the commander of the brigade.

The 1st Battalion, 3d Marines, meanwhile had been alerted on Okinawa for a possible airlift. It, too, was ordered to Da Nang on 8 March. Because of the congestion which developed on the airfield, ComUSMACV ordered a temporary cessation to the lift. It was resumed on the 11th and the battalion arrived in Da Nang on the 12th.

Squadron HMM-365, commanded by Lieutenant Colonel Joseph Koler, Jr., was embarked in the *Princ-*

ton. Koler's UH-34s were flown to the airfield at Da Nang, but the crews reembarked in the *Princeton* for the voyage to Okinawa. Aircrews and squadron personnel of Lieutenant Colonel Oliver W. Curtis' HMM-162 were airlifted by KC-130 from Okinawa to Da Nang to take over the UH-34s left by HMM-365.

Brigadier General Karch took operational control of all Marine aviation units that were already ashore. He also established an MEB command post in the same old French compound where Colonel King was set up. Colonel King had had the foresight to contact General Thi, who commanded I Corps and the ICTZ, to get permission to use some additional buildings.

The air component of the 9thMEB now included two HMMs and one LAAM battalion. Colonel King remained in command of the air units. He also received some service support elements from Marine Aircraft Group 16 (MAG-16) based at Futema, Okinawa, and since his command was now integrated into the MEB, the MUV was deactivated and MAG-16(–)[2] took its place. A rear echelon of MAG-16 remained at Futema, Okinawa.

Requests for additional military forces were submitted by ComUSMACV. One 15-plane Marine Fighter/Attack Squadron (VMFA) was authorized to deploy to Da Nang. VMFA-531 based at Atsugi, Japan, and commanded by Lieutenant Colonel William C. McGraw, Jr., received the order on 10 April. By dusk on the 11th, the aircraft and most of the men were in Da Nang, having flown there directly, refueling in the air from Marine KC-130 tankers as they went. On 13 April, McGraw led twelve of his F-4Bs on their first combat mission in South Vietnam, in support of U. S. Marine ground troops. The F-4 was an aircraft that would perform either air-to-air missions against hostile aircraft or air-to-ground strikes in support of friendly troops.

As the tempo of retaliatory strikes against North Vietnam by the Navy and Air Force increased, the enemy air defense began to include greater numbers of radar-controlled weapon systems. The sole source of tactical electronic warfare aircraft readily available to counter the new enemy defense was Marine Composite Reconnaissance Squadron One (VMCJ-1) at Iwakuni, Japan. On 10 April 1965, the Commander-in-Chief, Pacific (CinCPac), ordered the deployment of an EF-10B detachment to Vietnam. The detachment, led by Lieutenant Colonel Otis W. Corman, arrived in Da Nang the same day. The electronic warfare aircraft (EF-10Bs and later EA-6As) began to provide support to Marine, Navy, and Air Force strike aircraft. The photo-reconnaissance aircraft (RF-8s and RF-4s) arrived later and performed primarily in support of Marine units, but they also supported Army units in I Corps and flew bomb damage assessment missions north of the DMZ.

Southeast Asia was an area familiar to the pilots of VMCJ-1. Detachments of RF-8As, the photographic aircraft of the squadron, had been aboard various carriers in the Gulf of Tonkin continually since May 1964, when CinCPac initiated the Yankee Team operations to conduct photo reconnaissance over Laos. Detachment pilots were also on hand to participate in the Navy's first air strikes against North Vietnam, and they continued photographic reconnaissance activities as part of carrier air wings until the detachment rejoined the parent unit at Da Nang in December 1965.

Colonel King now had an air group that contained elements of two jet squadrons, two helicopter squadrons, a Hawk missile battalion, and air control facilities so he could operate a Direct Air Support Center (DASC) and an Air Support Radar Team (ASRT). He also had the support of a detachment of KC-130 transports that were based in Japan.

The month of May was one of further growth and change. Several additional infantry battalions arrived and elements of MAG-12 landed at Chu Lai to the south of Da Nang. Major General William R. Collins, Commanding General, 3dMarDiv, arrived on 3 May from Okinawa. He set up an advance division command post, and on 6 May he established the Third Marine Expeditionary Force (III MEF); the 9thMEB was deactivated. Within a few days the title of III MEF was changed to Third Marine Amphibious Force (III MAF). The term "expeditionary" seemed to conjure up unhappy memories of the earlier ill-fated French expeditionary corps. And some believed "amphibious" was more appropriate for a Marine command in any event.

On 11 May, Major General Paul J. Fontana opened an advance command post of the 1st Marine Aircraft Wing (1stMAW) in the same compound. On 24 May, Brigadier General Keith B. McCutcheon, assistant wing commander, arrived to relieve General Fontana in the advance command post, and on 5 June he relieved him as Commanding General of the 1stMAW. The day before, Major General Lewis W. Walt relieved Collins as Commanding General, 3dMarDiv and III MAF. McCutcheon became Deputy Commander, III MAF, and Tactical Air Commander.

The Marine Air-Ground Team was in place. The 1stMAW now had elements of a headquarters group and two aircraft groups in Vietnam. Additional units were waiting to deploy and still others were requested. It was but the beginning of a steady Marine buildup in I Corps. It was summer and the weather was hot and dry. The heavy rains were not due to start until September.

[2] Marine terminology often describes units as plus or minus to make clear that a unit is missing a capability normally included in the composition of the unit, or it has been given an additional capability not normally part of the given unit.

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Resources

Bases

The major constraint to receiving any more air units was the lack of adequate bases.

Da Nang Air Base was one of only three jet-capable airfields in all of Vietnam, and the only one in I Corps; the others were Bien Hoa and Tan Son Nhut, both near Saigon. In 1965, Da Nang had one 10,000-foot paved runway with a parallel taxiway. Less than half the length of the runway on the eastern side of the field had associated ramp space for parking aircraft. On the western side there was a blacktop parking apron that could accommodate about two squadrons of helicopters.

A military construction board was formed in III MAF and a list of requirements was prepared and submitted to higher authority. A second runway and taxiway had already been approved at the end of March for Da Nang as well as adequate hardstand and maintenance areas on the western side of the field. This would eventually accommodate one Marine Aircraft Group, a Support Group, and a Navy unit (Fleet Air Support Unit, Da Nang) which arrived in April 1968, in order to carry out various functions for the Seventh Fleet. The eastern side of the field would then be released to the U. S. Air Force and the Vietnamese Air Force. Before this construction could be undertaken, however, a base had to be made available for the helicopters then at Da Nang. And still another base was required for a second jet group.

There were several restrictions confronting III MAF as far as construction was concerned. First, was the problem of obtaining real estate. This was a laborious and time consuming administrative process. Second, was the need to relocate the Vietnamese families living on the desired site. Equally important to the Vietnamese was the relocation of their ancestral grave sites. Third, there was inadequate engineering help available in Vietnam to build everything required, so priorities had to be established. And finally, security forces had to be provided, and any unit assigned to this task meant fewer troops for other tactical operations.

SATS and Chu Lai

A second jet base was essential. Through the foresight of Lieutenant General Krulak, a likely site had been picked out about fifty miles south of Da Nang for a Short Airfield for Tactical Support (SATS). General Krulak had recommended it almost a year before to Admiral Sharp, who was CinCPac. Admiral Sharp and General Westmoreland had been discussing the need for another jet base somewhere in South Vietnam. General Krulak's main concern was to have a jet airfield in I Corps, where his Marines were to be committed if the contingency plans were implemented. Finally, on 30 March 1965, Secretary McNamara approved installation of a SATS at Chu Lai. Chu Lai was not a recognized name on Vietnamese maps at that time and the rumor is that Krulak gave it that name when he chose the place. Chu Lai reportedly is part of his name in Chinese.

By virtue of their experience in Naval Aviation, Marine aviators had long recognized the advantage of being able to approximate a carrier deck sort of operation on the beach. They realized that many areas of the world did not have adequate airfields, and that normal construction methods took too long. Something that approached an "instant airfield" was required.

In the mid-fifties, the Marine Corps Development Center at Quantico, Virginia, intensified development of both the concept and the hardware to realize this project. They visualized a 2,000-foot airstrip that could handle a Marine Aircraft Group of two or three aircraft squadrons. The essential components of such a base would include a suitable surface for the runway, taxiways, and hardstands; a means of arresting the aircraft on landing similar to that on a carrier deck; a catapult or other means to assist in launching the aircraft; provisions for refueling, rearming, and maintenance; air control facilities; and, of course, all the necessities for housekeeping. The installation time was to be from 72 to 96 hours.

Various projects were already underway that could provide solutions to some of these problems. Others had to be started. Furthermore, the entire concept had to be pulled together into a single system. Naturally, a name for the system was required and a name was found—SATS—Short Airfield for Tactical Support.

The kind of surface material to use was one of the harder problems to solve. Fabrics, plastics, soil stabilizers, and many other ideas were tried, but none was able to cope with the impact and static loads of aircraft operations and the temperature of jet exhaust. Finally, attention was directed to metals, and eventually a solid aluminum plank was developed which promised to do the job. It was known as AM-2. A single piece of this mat measures two feet by 12 feet and weighs 140 pounds. The individual pieces are capable of being interconnected and locked in place, thus providing a smooth, flat surface that is both strong and durable.

The arrested landing problem was already in hand with the use of modified shipboard arresting gear. Development of improved equipment was initiated, nevertheless, and the M-21 was the result. This is a dry friction, energy-absorbing device using a tape drive with a wire pendant stretching across the runway. This arresting gear is now standard in the Corps.

Launching in a short space was a bigger problem. JATO (Jet Assisted Take-Off) bottles were available, but

these could be a logistical burden over a long period of time. A catapult was desired. Development and testing were not complete in early 1965, but progress was promising.

The refueling problem was solved by adapting the Amphibious Assault Bulk Fuel Handling System (AABFHS) to the airfield environment. The result was the Tactical Airfield Fuel Dispensing System, or TAFDS. This system used the same 10,000-gallon collapsible tanks, hoses, pumps, and water separators as the AABFHS, but it added special nozzles for refueling aircraft: there were single-point refueling nozzles for jets, and filling-station gooseneck types for helos and light aircraft.

In a similar manner, all of the other requirements were analyzed and action was taken to find a solution. By May 1965, all were available except the catapult, but JATO was on hand, and Marine A-4s were modified to use it.

The concept of SATS visualized seizing an old World War II airstrip or some similar and reasonably flat surface that required a minimum amount of earth moving, and installing a 2,000-foot SATS thereon in about 72 to 96 hours. This would permit flight operations to commence, while improvements and expansion could be conducted simultaneously.

Chu Lai did not meet all the requirements visualized by SATS planners. It was not a World War II abandoned airfield. The soil wasn't even dirt. It was sand. And there was lots of it.[3]

But Chu Lai was on the sea, it had a semi-protected body of water behind a peninsula that could be developed into an LST port, it could be defended, and there were few hamlets in the area that would have to be relocated. All things considered, Chu Lai was the most likely site on which to build a new air base.

On 7 May 1965, Naval Mobile Construction Battalion 10 (NMCB-10), under Commander J. M. Bannister, crossed the deep sandy beach at Chu Lai along with the 4th Marine Regiment and elements of MAG-12. The Seabees went to work on 9 May, constructing the first SATS ever installed in a combat environment.

The landing force commander at Chu Lai was Brigadier General Marion E. Carl, one of the Corps' most famous aviators. He had brought his 1st Marine Brigade from Hawaii to the Western Pacific in March and although that Brigade was disbanded, Carl had become Commanding General of the 3dMEB. As there were no stakes to mark the previously chosen site, he had a hand in picking the exact spot where the runway should go.

The sand proved to be a formidable enemy. Unloading from the ships was hampered, as driving vehicles through the sand was most difficult. Tracked vehicles were essential to move the rubber-tired ones. It required a superhuman effort to get the job done.

The general construction scheme was to excavate some locally available soil, called laterite, and use it as a sub-base between the sand and aluminum matting. Before that could be done, a road had to be built from the site of the airfield to the laterite deposit. This was done, but the combination of temperatures around the hundred mark and the effect of sand on automotive and engineering equipment slowed the progress of construction. Both men and mechanical equipment grew tired quickly in this hostile environment. Needless to say, no one expected to finish in four days. Even thirty looked totally unrealistic, but that was the goal. In spite of the problems and obstacles, Lieutenant General Krulak bet Major General Richard G. Stilwell, Chief of Staff of MACV, that a squadron would be operating there within 30 days.

By Memorial Day, approximately four thousand feet of mat and several hundred feet of taxiway were in place. Chu Lai was ready to receive aircraft, but tropical storms prevented the planes from flying from the Philippines to Vietnam until 1 June. Shortly after 0800 on that date, Colonel John D. Noble, Commanding Officer of MAG-12, landed an A-4 into the mobile arresting gear on the aluminum runway. He was followed by three others, and, later in the day, four more arrived. About 1300, the first combat mission was launched using JATO with Lieutenant Colonel Robert W. Baker, Commanding Officer of VMA-225, leading.

General Krulak paid off his bet of a case of Scotch to Stilwell on the basis that a full squadron was not operating there in the forecast time, only half of one.

But construction continued and, as additional taxiway was built, more planes came in. Meanwhile operations continued on a daily basis.

The laterite, however, simply wasn't doing the job, so when 8,000 feet of runway was installed, it was decided to operate from the southern 4,000 feet and to re-lay the northern 4,000 feet, which were the first to go down. As it turned out, after the northern half was redone, the other half had to have the same treatment, and then the cycle was repeated still another time when, at last, the right sub-base combination was found. Various techniques were tried, including watering and

[3]The sand and dust were problems, but the biggest problem in the early days was a lack of facilities in which to conduct maintenance. Maintenance was performed on the line under strictly expeditionary conditions. As time went by, facilities were built. Structures that could accommodate two A-4s were erected as line hangars, shops were constructed, and electric power was installed. The problems were different at Da Nang. Da Nang at least had some hangar space, even if it was old and in poor repair. Eventually, some of the facilities built at both Da Nang and Chu Lai were probably better than those we have at air stations in the United States. But the Marine Corps does not expect to find these conditions at the outset of any operation. That is why the Corps has placed so much emphasis on the expeditionary aspects of its operations.

packing the sand down without any other material, shooting the sand with a light layer of asphalt, and finally a combination of the latter and using a thin plastic membrane under the matting to keep rain from settling into the soil and undermining the runway surface.

Drainage was essential, of course, as any standing water under the mat set up a pumping action as aircraft rolled over the mat, which was particularly noticeable when a transport like a KC-130 landed and rolled out.

During these periods of 4,000-foot operations, JATO was used when high temperatures and heavy bomb loads required it. In addition, a Marine KC-130 tanker was kept available to top off A-4s after take-off, by inflight refueling.

A catapult was installed in April 1966, so all SATS components were then in place. The catapult was tested and evaluated under combat conditions but was not actually required on that date because of the length of the runway. It was used, but not on a sustained basis.

The SATS concept was proven under combat conditions at Chu Lai. The AM-2 mat became a hot item, and production of it was increased markedly in the United States, as all Services sought it. It was used for non-SATS airfields and helicopter pads, and became as commonplace in Southeast Asia as was the pierced steel plank (PSP) in the Southwest Pacific in World War II. Likewise, TAFDS components became a common sight, and their flexible fuel lines could be seen almost anywhere.

The original "tinfoil strip," as it came to be called, was still in operation late in 1970, more than five years after it was laid down. Not even the planners back in Quantico in 1950 ever envisioned that someone would install a short airfield for tactical support on sand and leave it there for five years. But this is exactly what was done at Chu Lai.

Ky Ha and Marble Mountain

The small civilian airfield at Phu Bai, South of Hue, could accommodate one helicopter squadron, which was required in that area to support an infantry battalion that was assigned to secure the region in 1965. But in addition, two major helo bases were required in relatively short order: first, to take care of MAG-36, which had been alerted to deploy from Santa Ana, California; and second, to free Da Nang of its rotary wing aircraft, so that construction of the parallel runway there could be started.

The peninsula to the northeast of Chu Lai provided a likely site for a helo group as well as an air control squadron. The Seabees began preparation of a flat area and laid down several kinds of metal matting, but they had no time to do anything else in the way of preparing for MAG-36's arrival. The group departed from the West Coast in August 1965, and arrived off Chu Lai early in September. They unloaded, moved ashore, and set about building their own camp. At night they also established their own perimeter defense as there was no infantry to do it for them. And, almost as soon as they landed, the rains began. Whereas at Chu Lai it was sand, at Ky Ha it was pure, unadulterated mud. The base was named Ky Ha after the village nearest the site.

For MAG-16, a site had been chosen east of Da Nang just north of Marble Mountain. There was a beautiful stretch of sandy beach along the South China Sea and just inland was a fine expanse of land covered with coniferous trees ten to twenty feet high. Unfortunately, as soon as word got out that Marines were going to construct an air base there, the local Vietnamese came onto the land in droves and removed all the trees including the roots, instead of the few that had to be removed to build the runway and parking areas. Thus, the troops and other inhabitants lost the protection these trees would have afforded against sun, wind, and erosion.

The civilian construction combine in Vietnam, Raymond, Morrison, Knudson-Brown, Root, and Jones (RMK-BRJ), received the job of building the helicopter facility at Marble Mountain. It was sufficiently advanced by late August 1965 to allow MAG-16 to move from Da Nang and operate at the new facility.

All during the summer, the question of whether or not another SATS type airfield should be constructed in ICTZ was under serious consideration. There were four likely sites: from north to south, Phu Bai, Marble Mountain Air Facility, Tam Ky, and Quang Ngai. After much study and many messages, the idea was abandoned when it became clear that Da Nang plus Chu Lai would be adequate.

On the night of 27 October 1965, the enemy executed a coordinated sapper attack against Da Nang, Marble Mountain, and Chu Lai. The attack on Da Nang was thwarted by artillery fire against one column to the west, and by an alert ambush against a second force to the south.

At midnight, three sapper teams hit Marble Mountain Air Facility. The team from the north was met by aviation specialists standing guard duty and every attacker was killed. The southern team was driven off. But the one from the west managed to get on to the parking area and several of the enemy raced from helo to helo throwing charges into each. In short order, the place was a mass of burning aircraft. Over twenty were damaged beyond repair, and an equal number required varying degrees of repair.

At Chu Lai only a handful of sappers made it to

the flight line, and half of them were killed. A few A-4s were damaged, two beyond repair.

Air bases were to become prime targets. They required close-in defense in depth to make sapper infiltration unprofitable, and they required an outer mobile defense by infantry to ward off rockets and mortars. The ground units did a superb job in keeping the enemy off balance, so that only a few rockets and mortars found profitable targets. Further, aviation and ground personnel tightened their perimeter defense, so never again was there an infiltration which equalled the success of the October attack.

Da Nang

Once MAG-16 had vacated the west side of Da Nang, construction could begin on the parallel runway and taxiway. Plans were made to construct the northern and southern concrete touchdown pads and connecting taxiways to the east runway first, the MAG operating and maintenance area on the northwest corner of the base second, the remainder of the runway third, and the parallel taxiway last. The two touchdown pads were required first because there was an urgent requirement to move VMCJ-1 from the parking apron on the east side of the field. Furthermore, an F-8 squadron was authorized for Da Nang, but there was no ramp space. The northern touchdown pad would provide ramp space for these two jet squadrons. The southern pad would provide a place to operate the KC-130s and C-117s.

The 1stMAW did not desire to have the entire runway completed before the MAG operating area was, because if it had been, it would have been used as a runway and not for ramp space. This priority was given to the completion of jobs because the engineer work-force was not adequate to undertake them all simultaneously. Although another runway was sorely needed, parking space was the more urgent requirement. Why wasn't a SATS built so a runway would be available at the same time parking space was? Because what was needed was a long runway for the long haul that would accommodate Marine, Navy, Air Force, commercial, and miscellaneous aircraft of all sizes.

MAG-11 moved into Da Nang from its base at Atsugi, Japan, in July 1965, and took command of the jet squadrons which up to that time had been under control of MAG-16. Colonel Robert F. Conley commanded MAG-11. The F-8 squadron, Marine All-Weather Fighter Squadron 312 (VMF[AW]-312), commanded by Lieutenant Colonel Richard B. Newport, arrived at Da Nang in December 1965 and occupied the completed northern touchdown pad along with VMCJ-1, which had moved over from the east side of the base.

The MAG operating area for MAG-11 and the west runway were completed late in 1966, and the last Marine flight operations were then moved from the east side of the base to the west side.

Chu Lai West

A 10,000-foot conventional concrete runway and associated taxiways, high speed turnoffs, and ramp space for two MAGs was begun at Chu Lai, to the west of the SATS strip, early in 1966 and completed that October. Marine Air Group 13 arrived from Iwakuni, Japan, and occupied the new base. This Air Group had been stationed at Kaneohe, Hawaii, as part of the 1st Marine Brigade. It deployed to the Western Pacific with the Brigade and Brigadier General Carl in March, but bided its time in Okinawa and later in Japan, until a base was available for it in Vietnam. Beginning in the fall of 1967, both MAGs 12 and 13 operated from the concrete runway, and the SATS strip was made available to the Army for helos and light aircraft.

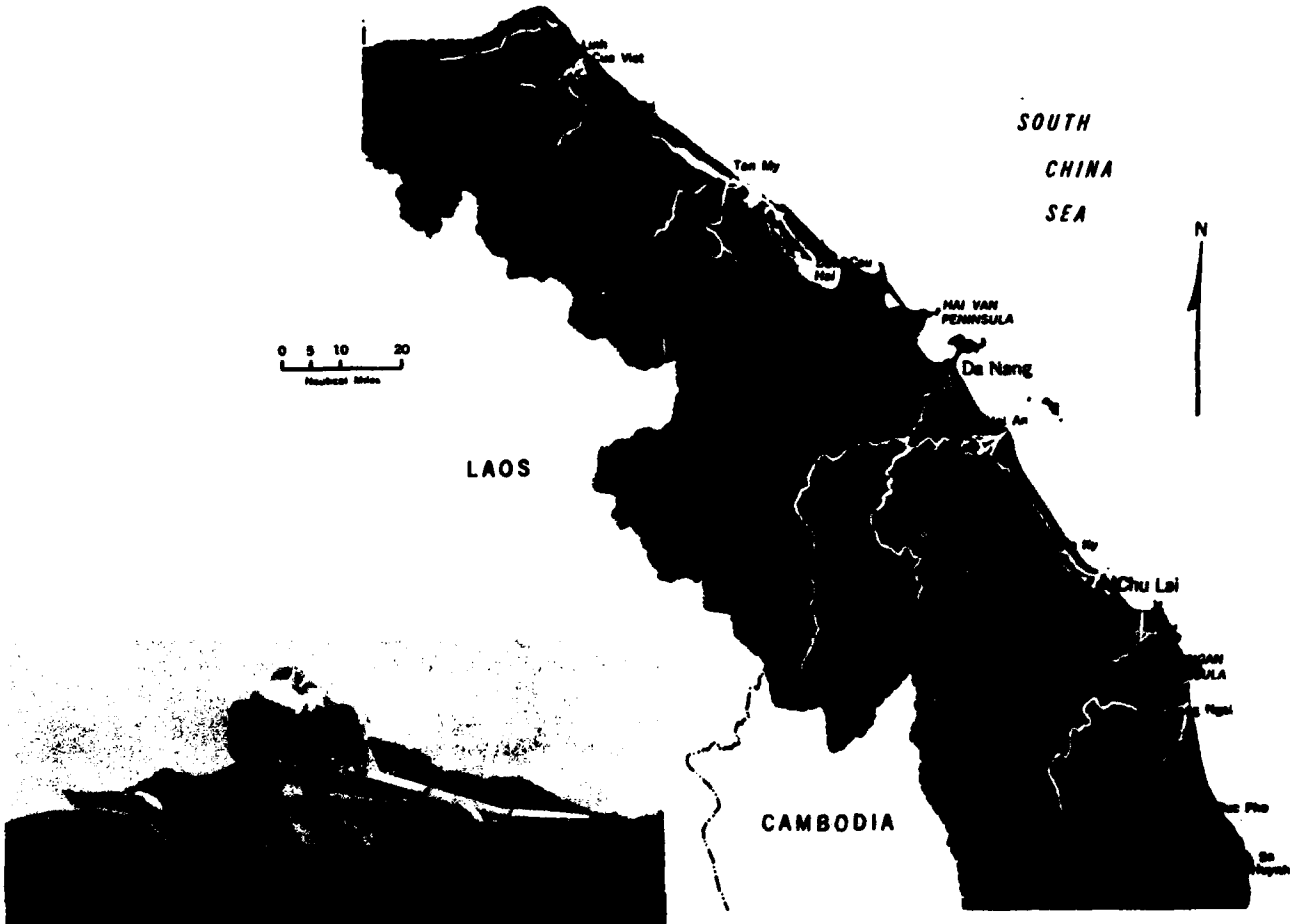
An AM-2 runway, complete with catapult and arresting gear, was constructed to connect the northern ends of the concrete and "tinfoil" runways. This provided for a cross-wind runway, about 4,800 feet in length, as well as an interconnection of the two fields for aircraft movement on the ground.

Helo Bases in Northern ICTZ

As the center of gravity of Marine operations moved north, the helos followed. Late in 1967, Phu Bai was expanded to accommodate a full helicopter group, and MAG-36 moved there from Ky Ha, which was taken over by the Americal Division. Later a base was established at Dong Ha to support the 3dMarDiv's operations below the DMZ. This proved to be a particularly hot area, as it came under fire with some regularity from enemy artillery north of the DMZ. In October 1967, the Quang Tri helicopter base, nine nautical miles south of Dong Ha and beyond the range of enemy artillery firing from the DMZ, was completed in a record 24 days. The helicopters were sent there from Dong Ha and operations were begun immediately. In April 1968, a provisional air group, MAG-39, was established out of 1stMAW resources in order to provide better command and control over the helicopter squadrons based at Quan Tri to better support the 3dMarDiv.

Monkey Mountain

Another formidable construction project was the emplacement of a Hawk missile battery on Monkey Mountain just east of Da Nang. The site selected was over two thousand feet above sea level and about one mile east of the Air Force radar site known as Panama. Naval Mobile Construction Battalion 9, led by Commander Richard Anderson, was given this task. A road had to be built first of all, and then the mountain peak



Chu Lai was not a recognized name on Vietnamese maps when, in March 1965, it was chosen to become the second (after Da Nang) jet base in I Corps; yet, in five years, the STOL concept was proven under combat conditions here. Among the techniques tested at Chu Lai was the modified shipboard arresting gear which can stop a jet—such as this F-4B coming into the cross-wind runway with its arresting hook down—in 600 feet.

had to be leveled in order to provide a sufficiently flat area to emplace the battery. On 1 September 1965, the site was sufficiently cleared to receive the equipment, and Captain Charles R. Keith's "B" Battery, 1st LAAM Battalion, was emplaced. As in the case of airfields, development of the site continued concurrently with operations. Late in 1966, a similar but less extensive construction effort was undertaken just to the east of Hai Van Pass, so that the LAAM Battery which was still on Da Nang Air Base could be moved to a better tactical location.

Other Operating Areas

In addition to these permanent bases, many outlying fields and expeditionary operating areas were established as the military requirement dictated. Airfields suitable for KC-130s and helos were built or improved at Khe Sanh, An Hoa, Landing Zone Baldy, Tam Ky, and Quang Ngai; and the 1stMAW at one time or another had detachments stationed at these installations to provide for air traffic control, refueling, rearming, and other essential tasks. ("Suitable for KC-130s" means about 3,000 feet of runway with some sort of hard surface.) The 1stMAW had the capability to move where the action was. Its expeditionary character was well suited to this kind of campaign.

Men, Units, and Aircraft

From the time it established its command post (CP) at Da Nang in June 1965 until April 1966, the 1stMAW maintained a rear echelon under its command at Iwakuni, Japan. During this period the 1stMAW had cognizance over all Marine Corps aviation units deployed to the Western Pacific. It rotated jet units between Japan and Vietnam and helo squadrons between Okinawa, the Special Landing Force (SLF) afloat in the Seventh Fleet, and Vietnam. It also reassigned men.

In Vietnam the wing had a Headquarters Group and four aircraft MAGs: MAG-11 and MAG-12, with jets at Da Nang and Chu Lai respectively; MAG-16 at Marble Mountain and Phu Bai with helos; and MAG-36 at Ky Ha with helos. A Service Group, stationed in Japan as part of the rear echelon, did not arrive in Vietnam until 1966, when facilities became available. The Headquarters Group and the Service Group were both reorganized in 1967 by Headquarters Marine Corps into three groups instead of two: a Headquarters Group, an Air Control Group, and a Support Group. This reflected a realignment of functions to provide better management of resources, based on experience gained in the recent move of the 1stMAW from Japan and Okinawa to Vietnam.

The first aircraft squadrons to arrive in Vietnam were from 1stMAW units in Japan and Okinawa. These were "rotational" squadrons. Each had been trained in the United States and deployed as a team to serve a 13-month tour together in WestPac. At the expiration of that tour, another squadron was scheduled to arrive to replace the old squadron on station.

Because all members of the squadron arrived at the same time, it meant they all had to be sent back to the United States at the same time. Likewise, all the men in squadrons that arrived in Vietnam from Hawaii and the United States, whether their units were rotational squadrons or not, would also have to be replaced at the same time.

The Corps could no longer support unit rotation on that scale, so it was forced to go to a system of replacement by individuals rather than by units, except in special cases. This problem arose because the Stateside training establishment became saturated with training individuals as individuals and had no time to devote to team or unit training, except for those units which were reforming with new aircraft. In the latter case, unit rotation was necessary. In order to preclude all of a unit being replaced in one month, the 1stMAW went through a reassignment program in late 1965 in an effort to smooth out the rotation dates of men's tours. All like squadrons, for example all HMMs, had their men interchanged to take advantage of different squadron arrival times in WestPac so that their losses through rotation would be spread over several months rather than one. Short touring a few men helped further to spread the losses. This program was called "Operation Mixmaster." It was a difficult one to administer but it accomplished its objective.

In April 1966, the aviation units in Japan and Okinawa were removed from the 1stMAW and established as a separate command reporting directly to FMFPac. The rotation of aircraft, men, and units in and out of Vietnam then became the direct responsibility of FMFPac in lieu of the 1stMAW. The principal reasons for this were that the 1stMAW was increasing in size to the point that the staff could not manage men and equipment spread all over the Western Pacific, and the units in Japan and Okinawa were under the operational control of the Seventh Fleet rather than under General Westmoreland in Vietnam, who did have the operational control of 1stMAW. So this realignment logically transferred administrative control to FMFPac.

When the war began in 1965, the Marine Corps was authorized 54 deployable aircraft squadrons in the Fleet Marine Forces: 30 jet, 3 propeller transport, 18 helicopter transport, and 3 observation.

After initial deployments to Vietnam in 1965, action was initiated on a priority basis to expand the Corps. Another Marine division, the 5th; one deployable helicopter group consisting of two medium helicopter squadrons; and two observation squadrons were authorized for the duration of the Southeast Asia conflict. The 5thMarDiv was organized, trained, and equipped, and elements of it were deployed to Vietnam. The helicopter group never did become fully organized or equipped. Only one of its helo squadrons was formed. Additionally, two fixed wing and two helicopter training groups, all non-deployable, were authorized for the permanent force structure, but they were not fully equipped until 1970.

The reasons that these aviation units were not completely organized and equipped were primarily time and money. All of the essential resources were long-lead-time items: pilots, technical men, and aircraft. All of them are expensive.

The Reserves could have provided trained personnel, but they were not called up in the case of the Marine Corps. The Reserve 4th Marine Aircraft Wing was not equipped with modern aircraft equivalent to the three regular wings, and it did not have anywhere near its allowance of helicopters, so even if the men had been left behind, it would not have been much help as far as aircraft were concerned.

Two years later the Department of Defense authorized the Marine Corps to reorganize its three permanent and two temporary observation quadrons into three observation and three light transport helicopter squad-

rons. The net result of these authorization was that the Marine Corps added one medium and three light transport helicopter squadrons, giving a total of 58 deployable squadrons.[4]

The Arrival of New Aircraft

Aviation is a dynamic profession. The rate of obsolescence of equipment is high and new aircraft have to be placed in the inventory periodically in order to stay abreast of the requirements of modern war. In 1965, the Corps was entering a period that would see the majority of its aircraft replaced within four years.

The A-6A all-weather attack aircraft was coming into the FMF to replace six of twelve A-4 squadrons. (The Marine Corps could neither afford nor did it need to acquire a 100 per cent all-weather capability.) The squadrons retaining A-4s would get a newer and more capable series of A-4. Two-seat TA-4Fs would also become available to replace the old F-9 series used by airborne tactical air coordinators.

The F-4B was well along in replacing the F-8 in the 15 fighter squadrons, and in two years, it was to be replaced in part with an even more capable F-4J.

The RF-4 photo reconnaissance aircraft was programmed to replace the RF-8.

The EA-6A electronic warfare aircraft was procured to replace the EF-10B, which was a Korean War vintage airframe.

The O-1 was scheduled to give way to the OV-10A.

The UH-34 medium transport helicopter and the CH-37 heavy transport were to be replaced by the CH-46 and the CH-53, respectively, in the 18 transport helicopter squadrons.

The UH-1E was just coming into inventory to replace the H-34. In a few years, the AH-1G Cobra would fill a complete void. It would provide the Corps with its first gunship designed for the mission. It did not replace, but rather augmented the UH-1E. (The Marine Corps had no AC-47s, AC-117s, AC-119s, or AC-130s. Every C-47, 117, 119, and 130 the Corps had was required for its primary purpose and none was available for modification to a gunship role.)

Only the KC-130 tanker-transport did not have a programmed replacement.

New models were accepted all through the war. As each was received, a training base had to be built, not only for aircrews but also for technicians. In order to introduce a new model into the 1stMAW, a full squadron had to be trained and equipped or, in the case of reconnaissance aircraft, a detachment equivalent to one-third or one-half a squadron. As a new unit arrived in Vietnam, a similar unit with older aircraft would return to the United States to undergo reforming with new aircraft. After several like squadrons had arrived in Vietnam, they would undergo a "mixmaster" process in order to spread the rotation tour dates of the men for the same reason as the first squadrons that entered the country.

In June 1965, nine of the fixed wing and five helicopter/observation squadrons were deployed to WestPac. By the following June, 12 fixed wing and 11 helo/observation squadrons were in WestPac. A year later the total was 14 and 13, respectively, and by June 1968 it had risen to 14 and 14, essentially half of the Marine Corps' deployable squadrons. Except for one or two jet squadrons that would be located in Japan, at any one time all of these squadrons were stationed either in Vietnam or with the Special Landing Force of the Seventh Fleet operating off the coast of Vietnam.

More squadrons could not be deployed because all of the remaining squadrons in the United States were required to train replacements, either for the individual replacement program or for the limited unit rotation program to deploy new aircraft. Other commitments were drastically curtailed or eliminated. For example, no helicopters accompanied the infantry battalions to the Mediterranean. The capabilities of FMFPac and FMFLant to engage in other operations were substantially reduced.

Command, Control, and Coordination

1965–1968

The Marine Corps is proud of the fact that it is a force of combined arms, and it jealously guards the integrity of its air-ground team. Retention of operational control of its air arm is important to the Corps' air-ground team, as air constitutes a significant part of its offensive fire power. Ever since the Korean War, when the 1stMarDiv was under operational control of the Eighth Army and the 1stMAW was under the Fifth

[4]The following table lists the normal planning figures for each kind of aviation unit. Due to operational factors, not all squadrons were equipped with normal complements. Main deviations were VMO, VMCJ, and HML.

Type Squadron	*No. Aircraft*	*Model Aircraft*
VMA	20	A-4
VMA(AW)	12	A-6
VMFA	15	F-4
VMCJ	9	EA-6A
	9	RF-4
VMGR	12	KC-130
VMO	18	OV-10A
	12	AH-1
HML	24	UH-1
HMM	21	CH-46
HMH	18	CH-53

Air Force, the Corps has been especially alert to avoid such a split again. It is even more important now because of the increased reliance on helicopters and close air support.

Long before a Marine MEB landed in Vietnam, CinCPac was also concerned about how tactical air operations would be coordinated in the event of a war. Admiral H. D. Felt, who was CinCPac in the early sixties, had studied the lessons of the Korean War and concluded that we needed to do better. And since there was no doctrine upon which all the Services were agreed on that score, he decided to form a board to look into the matter.

Brigadier General McCutcheon was then the assistant chief of staff for operations at CinCPac, and Admiral Felt appointed him to head a twelve-man board with representatives from the CinCPac staff and the three Service component commands. All four Services concerned were represented. The board convened in September 1963 and deliberated for three months. It looked at the full spectrum of tactical air support, which includes five principal functions:

a. Control. The allocation and management of resources (aircraft and missiles) to achieve maximum effectiveness.

b. Antiair warfare. The destruction of the enemy's air capability in the air and on the ground.

c. Offensive air support. The use of air-to-ground ordnance and other weapon systems in direct and close support of ground troops and in the interdiction of the enemy's rear areas.

d. Reconnaissance. The use of visual, photographic, electronic, and other airborne sensors to acquire information about the enemy and the battlefield environment.

e. Transport. The transportation of men, equipment, and supplies to and from and within the battle area.

The written report of the board contained a number of conclusions. One was that all Services possessed aircraft and that all Services required them in order to carry out their tactical missions. Another was that a joint force commander should appoint one of his Service component commanders to be the coordinating authority for tactical air operations within the area of operations of the joint command.[5]

Admiral Felt neither approved nor disapproved of the board report in its entirety. Nor did his successor, Admiral U. S. Grant Sharp, who relieved him on 1 July 1964. But various recommendations of the report were put into effect by CinCPac in his exercise of overall operational command and management of tactical air resources within the Pacific Command. For example, when photo reconnaissance missions were initiated over Laos in 1964, CinCPac used the coordinating authority technique to coordinate Navy and Air Force reconnaissance efforts. Later on, CinCPac used coordinating authority when air activity was undertaken in Laos and in North Vietnam.

When plans were being made early in 1965 to land Marines at Da Nang, CinCPac informed ComUSMACV that:

a. The Commanding General (CG) of the MEB would report to ComUSMACV as Naval Component Commander.[6]

b. ComUSMACV would exercise operational control of the MEB through the CG of the MEB.

c. Commander, 2d Air Division, in his capacity as Air Force Component Commander of MACV would act as coordinating authority for matters pertaining to tactical air support and air traffic control in MACV's area of responsibility.

ComUSMACV replied to CinCPac that the Marine jet squadron of the MEB would come under the operational control of his Air Force Component Commander and that such control would be exercised through the tactical air control system. Of course, he added, if the MEB became engaged, it was understood that Marine aircraft would be available for close air support.

The following day CinCPac reiterated his previous guidance to ComUSMACV, namely, that operational control of the squadron would be exercised through the MEB and not the 2d Air Division.

In April 1965, CinCPac promulgated a directive on conduct and control of close air support for the entire Pacific Command, but with emphasis on Vietnam. CinCPac clearly stated that the priority mission in Vietnam was close air support, and the first priority was in support of forces actually engaged with the enemy. The directive went on to say that close air support aircraft would be subject to direct call by the supported ground unit through the medium of the related close

[5] "Coordinating Authority" is defined in the *Dictionary of United States Military Terms for Joint Usage* as a commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more services, or two or more forces of the same Service. He has the authority to require consultation between the agencies involved, but does not have the authority to compel agreement. In the event he is unable to obtain essential agreement, he shall refer the matter to the appointing authority.

[6] CG III MAF also became Naval Component Commander, until 1 April 1966 when a new billet was created and designated Commander, U. S. Naval Forces, Vietnam. This officer then took charge of all U. S. naval activities in Vietnam including the Naval Advisory Group, the naval construction battalions, the naval support activities, the coastal patrol task force, the mobile riverine force, and the river patrol task force. Thereafter, III MAF consisted of one service reporting directly to ComUSMACV until U. S. Army units were assigned to ICTZ and placed under the operational control of III MAF.

air support agency. Among other things, the directive also said that nothing therein vitiated the prior CinCPac position that ComUSMACV's Air Force Component Commander should act as coordinating authority in matters pertaining to tactical air support and air traffic control.

In June 1965, ComUSMACV initiated a revision of his air support directive, and he drew heavily from the CinCPac Tactical Air Support Board report. The directive was published later that year and revised slightly in 1966, but the pertinent provisions were unchanged.

The MACV directive designated Commander, Seventh Air Force (formerly 2d Air Division), in his capacity as Air Force Component Commander, to act as the coordinating authority for all U. S. and Free World Military Air Force air operations and Vietnamese Air Force activities in the MACV area of operation. Commander, Seventh Air Force, was further given responsibility to establish, in conjunction with U. S. and Vietnamese agencies, an air traffic control system to provide normal processing and flight following.[7] He was also charged to prepare joint instructions, in conjunction with Commanding General, III MAF, and appropriate Army and Navy commanders, to insure integrated and coordinated air operations.

In the same directive, the Commanding General of III MAF was directed to exercise operational control over all Marine Corps aviation resources except in the event of a major emergency or disaster when ComUSMACV might direct Commander, Seventh Air Force, to assume operational control. Commanding General, III MAF, was further enjoined to conduct offensive and defensive tactical air operations to include close air support, interdiction, reconnaissance, maintenance of air superiority, air transport, search and rescue, and other supplemental air support as required. He was also directed to identify to Commander, Seventh Air Force, those resources in excess of current requirements so that such resources could be allocated to support other forces or missions. Finally, he was charged to prepare in conjunction with Commander, Seventh Air Force, joint operating instructions to insure a coordinated and integrated effort.

Concurrently with the revising of the MACV directive, the Commander, Seventh Air Force, Lieutenant General Joseph H. Moore, and the Deputy Commander of III MAF for Air, Brigadier General McCutcheon, were engaged in discussions relative to the degree of control that the Seventh Air Force should have over Marine air assets, particularly with regard to air defense operations. The Air Force desired to have operational control, but the Marines pointed out that the F-4 aircraft was a dual purpose aircraft[8] and that the Marine tactical air control system was used to control all Marine aviation functions, not just air defense. To relinquish operational control would deprive the MAF commander of authoritative direction over one of his major supporting arms.

Nevertheless, the Marines recognized the necessity of having one commander directly responsible for air defense so, after several joint meetings, it was decided to prepare a Memorandum of Agreement which would disseminate basic policies, procedures, and responsibilities. The Air Force was to have overall air defense responsibility and designate an air defense commander. The Commanding General, 1stMAW, was to designate those forces under his command that would participate in air defense, and he agreed that the Air Force would exercise certain authority over those designated resources to include scramble of alert aircraft, designation of targets, declaration of Hawk missile control status, and firing orders. This agreement was signed by the two commanders in August 1965. Overall operational control of Marine air resources was retained under III MAF, but requisite authority for purposes of air defense was passed to the Air Force.

These two documents provided the basic policy for command, control, and coordination of Marine aviation in Vietnam until early 1968, and they were entirely adequate as far as III MAF was concerned.

Single Management (1968–1970)

Late in 1967, the buildup began for the Battle of Khe Sanh. General Westmoreland had directed massive air support for the garrison there, and both the 1stMAW and Seventh Air Force responded in full. Both General Westmoreland and General William W. Momyer, Commander, Seventh Air Force, believed more effective use could be made of MACV's total air resources if they were managed by a single commander and staff. Early in 1968, a directive was prepared to implement the concept.

The proposed directive required the Commanding General, III MAF, to make available to the Deputy ComUSMACV for Air (who was also Commander, Seventh Air Force) for mission direction all of his strike and reconnaissance aircraft and his tactical air control system as required. The term "mission direction" was not defined. Deputy ComUSMACV for Air was to be responsible for fragging and operational direction of these resources. "Operational direction" was not defined either. "Fragging" is a common aviation term which

[7] Flight following is a service performed on request by a radar installation for an aircraft. It is usually used when flying conditions prohibit the pilot from maintaining a visual outlook. The radar site will follow his flight and advise him of any traffic that may interfere or create a potential hazard.

[8] The Marines had no F-8s in Vietnam at the time these discussions took place. The first F-8s arrived in December 1965 and they too had a dual capability.

means to issue a fragmentary order to cover details of a single mission, that is, what is required, where, and when.

The Marines, both in Vietnam and in Washington, objected to the proposed directive on two counts: first, the system as proposed would increase the response time for air support; and second, they reasoned it wasn't necessary.

With regard to the first point, MACV modified the proposed system to improve the response time so that for Marines it wouldn't be any longer than it had been formerly, and for the Army units it would be better. On the second count, MACV remained convinced that it was necessary.

The directive was approved by CinCPac and went into effect in March 1968. The system required the 1stMAW to identify its total sortie capability to Seventh Air Force daily on the basis of a 1.0 sortie rate, that is, one sortie per day for each jet aircraft possessed. Previously the 1stMAW had fragged its aircraft against air support requests received from the Marine ground units, and then identified daily to Seventh Air Force the excess sorties that would be available. These were then fragged by Seventh Air Force on either out-of-country missions or in-country in support of forces other than Marine units. The majority of air support could be forecast and planned in advance except the requirements that might be generated by troops in contact with the enemy. These requirements could be met by extra sorties, scrambles from the hot pad, or by diverting aircraft in the air.

As time went on the participants in the single management system made changes in order to improve efficiency and effectiveness. One such change was the fragging of a portion of the air support on a weekly basis rather than daily. This permitted the more or less standard recurring flights to be handled with less paperwork, while the nonroutine requests could still be fragged on a daily basis. Seventh Air Force also fragged back to 1stMAW a set number of sorties to take care of unique Marine requirements such as helicopter escort and landing zone preparation which were tied closely to helo operations.

When single management was inaugurated, two new DASCs were added to I Corps. One was established at the III MAF Command Post at Camp Horn, in East Da Nang, and one at the XXIV Corps Command Post at Phu Bai. The one at III MAF was the senior DASC in I Corps and was given authority to scramble strike aircraft without further reference to the Tactical Air Command Center (TACC) in Saigon. This scramble authority was not delegated to similar DASCs in other Corps areas. I Corps was unique in that it was the only corps area that had both Marine and Air Force tactical air squadrons and both Marine and Army divisions.

Since the 1stMAW generally exceeded the 1.0 sortie rate, all sorties generated in excess of 1.0 could be scrambled by Horn DASC. These excess sorties, plus those fragged back to meet unique Marine requirements, amounted to a sizeable percentage of the 1stMAW's effort, and so, for all practical purposes, the system worked around to just about where it was in the pre-single management days as far as identification or fragging of Marine sorties was concerned.

There is no doubt about whether single management was an overall improvement as far as MACV as a whole was concerned. It was. And there is no denying the fact that, when three Army divisions were assigned to I Corps and interspersed between the two Marine divisions, a higher order of coordination and cooperation was required than previously.

The system worked. Both the Air Force and the Marines saw to that. But the way it was made to work evolved over a period of time, and a lot of it was due to gentlemen's agreements between the on-the-scene commanders. A detailed order explaining the procedures was never published subsequent to the initial directive. The basic MACV directive on air support, however, was revised in 1970 to take into account the advent of single management.

The revised MACV directive defined the term "mission direction" or "operational direction" which had been used in the basic single management directive but not defined. "Mission direction" was stated to be the authority delegated to one commander (i.e., Deputy ComUSMACV for Air) to assign specific air tasks to another commander (i.e., CG III MAF) on a periodic basis as implementation of a basic mission previously assigned by a superior commander (ComUSMACV). In other words, ComUSMACV assigned CG III MAF a basic mission to conduct offensive air support, and ComUSMACV delegated to his Deputy for Air the authority to task CG III MAF for specific missions on a daily and weekly basis in frag orders in order that III MAF assets could support the force as a whole.

Although single management never took operational control of his air resources away from CG III MAF, the Marines were worried that that might be the next step. If so it would be a threat to the air-ground team, and it would recreate the Korean War situation all over again. The new MACV directive allayed their fears on this score. Not only did the definition of "mission direction" spell out the extent of control to be exercised, but the directive clearly stated that CG III MAF would exercise operational control over all his air resources, and that he would conduct offensive and defensive air support missions to include the full spectrum of tactical air support.

In short, the Marines did not relinquish operational

control of their resources, MACV as a whole received more effective air support, and III MAF continued to receive responsive air support from its own units. Within the system, III MAF had first claim on its own assets, so most Marine air missions were in support of Marine ground units and the majority of air support received by Marine ground units was provided by Marine air.

Control

Marine Corps doctrine prescribes that the commander of an air-ground team will have operational control of all his weapons systems and employ them in concert as a force of combined arms to accomplish his mission. The Marine commander exercises this operational control through his normal staff planning process and by means of the Marine Air Command and Control System.

The senior agency in this system is the Tactical Air Command Center (TACC). Because the Seventh Air Force had a TACC in Saigon, the 1stMAW center was called a TADC (Tactical Air Direction Center) as provided for in doctrine. This center was established in June 1965 in the wing compound at Da Nang and it functioned there throughout the war. Continuous improvements were made in its physical appearance, but the tasks performed remained essentially the same. The TADC monitored the employment of all Marine aircraft and allocated the resources to specific missions.

There were two principal agencies subordinate to the TADC. These were the Tactical Air Operations Center (TADC) and Direct Air Support Centers (DASCs).

The TAOC is the hub of activity for air surveillance and air defense. It is provided for by a Marine Air Control Squadron (MACS).

On a Saturday night in May 1965, Marine Air Control Squadron 9 (MACS-9), based at Atsugi, Japan, and commanded by Lieutenant Colonel Charles T. Westcott, received a telephoned order to have an early warning radar and tea n ready to deploy by air to Vietnam the next day. Three KC-130s from VMGR-152 were loaded on Sunday and flown to Phu Bai where the team set up and began operating as a northern radar site for the Air Force radar station Panama on Monkey Mountain.

The remainder of the squadron deployed to Chu Lai in the summer and established a manual TAOC. The information from the various radars was plotted by hand on vertical display boards just as had been done during World War II and the Korean War. MACS-7 relieved MACS-9 in place in September 1965.

In June 1967, MACS-4 arrived in Vietnam and replaced the manual system with a modern semi-automated, computer-oriented TAOC which had been developed as part of the Marine Tactical Data System, or MTDS. This system had been under development since the late fifties and was compatible with two similar developments by the Navy: the Navy Tactical Data System (NTDS) for surface operations and the Navy Airborne Tactical Data System (ATDS) for airborne control centers.

In order to make most effective use of this equipment it was decided to emplace it on Monkey Mountain where one of the Hawk missile batteries was located. This required more construction effort to enlarge the site to accommodate both MACS-4 and the Hawks. A considerable area was required for the radars and their antennae and for the sixteen helicopter-transportable huts that comprised the TAOC and the four huts that made up the Tactical Data Communications Central (TDCC).

The TAOC gave the 1stMAW a capability to handle 250 aircraft tracks, friendly and hostile, at one time. In addition, from an air defense point of view, the controllers could handle more than 25 air intercepts simultaneously and the TAOC had a built-in missile data link capability.

A team from the Joint Chiefs of Staff visited Southeast Asia and recommended that steps be taken to link the various Services' air control systems together in that theater. A joint task group was established to work out the technical details.

The TAOC was already operating with the NTDS and ATDS units of the Seventh Fleet in the Gulf of Tonkin. The interface between MTDS and these two systems was the Marine TDCC on Monkey Mountain. The TDCC was the logical candidate, therefore, to become the interface with the Air Force system. One more shelter was required. This provided a special data terminal, or "modem," to convert from computer mode to communications mode. In addition, a new program had to be written for the Marine computer. In layman's terms, the result produced a TDCC which was the equivalent of a language translator in three languages.[9] It could receive either Navy, Marine, or Air Force messages and translate the one received into the other two and pass the translation 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 Da Nang to naval ships in the Tonkin Gulf and vice versa. This interface became fully operational in August 1969 and marked a significant step forward in joint operations.

[9]This was necessary because the three Services used different data rates and message formats within their own systems. For example, suppose the NTDS plotted an aircraft track in the Gulf of Tonkin. The NTDS would send the essential data via radio to the TDCC on Monkey Mountain. The TDCC would translate this data or change it into two additional forms. One would then enter the MTDS and subsequently the track would be displayed on Marine operators' scopes. Another would enter the Air Force system and the track would appear on Air Force operators' scopes. The reverse process was also applicable.

Whereas the TAOC is the main control center for anti-air warfare and air traffic control, the DASC is the main center for dierect support of the ground troops. Each Marine division initially had a DASC located together with its organic Fire Support Coordination Center (FSCC). As the 3dMarDiv assumed responsibility for the very sizeable Northern I Corps area, it was necessary to establish a DASC at Phu Bai with the Division Headquarters and one at Dong Ha with Division (Forward). Requests for air support, both fixed and rotary wing, were requested and controlled through these agencies. During certain peak periods a Helicopter Direction Center (HDC) was established with the Regimental Headquarters at Camp Evans, midway between Hue and Quang Tri, and a mini-DASC at Khe Sanh. Information was provided by these facilities to aircraft, on request, relative to artillery fires in progress and major air strikes to enable planes to navigate safely between areas. This information was particularly helpful to helicopters. The wing also had the capability to install an HDC on short notice in a KC-130 to provide an airborne DASC if required. This was done on several operations. An airborne DASC was used whenever a ground operation was launched at such a distance from Da Nang that ordinary ground to air communication would be unreliable. The need for airborne DASCs decreased as bases were built throughout I Corps.

The Marine Air Support Squadron (MASS), which is the parent squadron for the DASC, also contains three mobile Air Support Radar Teams (ASRTs). Each team is equipped with the TPQ-10 radar course directing central which provides the capability to control aircraft in direct air support under conditions of low visibility. MASS-2 arrived in Vietnam in April 1965 from Okinawa, and MASS-3 arrived in October from California. The TPQs were up and operating early in the war.

During the summer of 1965, one TPQ-10 was set up for about six weeks near Pleiku in II Corps to provide air support for Army units operating in that area. Both Marine and Air Force aircraft were directed by it. Within I Corps the TPQs were moved as required to provide optimum coverage, and eventually they were deployed from near the DMZ to Chu Lai.

Lieutenant General Moore of the Seventh Air Force visited 1stMAW and was especially interested in this gear since the Air Force had nothing comparable Subsequently, the Air Force took some radar bomb scoring equipment and developed it into a ground controlled radar bombing device. It became known as Skyspot. Compared to TPQ-10, it had longer range but less mobility.

The A-4, A-6, and F-4 were all equipped with beacons, and the TPQ radar could track them to almost fifty miles under the best conditions. Knowing the radar-aircraft and the radar-target sides of the triangle, the computer could solve the aircraft-target problem for the particular ordnance to be delivered and the operator could instruct the pilot when to drop. The A-4 was also equipped with a link to the auto pilot which could permit automatic control and drop by the TPQ with the pilot flying hands off. Aircraft without a beacon could be tracked by radar to a distance of about thirty-five miles.

The TPQ-10 was a development based on the MPQ-14 used by the Marines in Korea. Replacement for the TPQ-10, making use of recent technology, is currently under development in a joint venture with the Air Force.

Although not part of the tactical air control system, the Marine Air Traffic Control Units (MATCUs) played a vital role in the control of air traffic. Their mission was terminal traffic control around an air base. They provided approach control, ground controlled approach, and tower facilities. The Corps is authorized one MATCU per jet group and, because of their dispersed operations, two per helo group. In Vietnam, the wing operated MATCUs at Chu Lai and Marble Mountain throughout the war and at Phu Bai, Quang Tri, Dong Ha, Khe Sanh, An Hoa, and Baldy as long as Marine units were operating at those bases. Without those units, air operations during the monsoon season would have been next to impossible.

The TAOC and MATCUs were linked together with communications so that enroute traffic handled by the former could be handed off to the latter for approach and landing clearance.

All of this command and control equipment—TACC/TADC, TAOC, DASC, ASRT, MATCU—is completely mobile and expeditionary by design. It can all be withdrawn from Vietnam (or wherever) and used elsewhere.

Air-Ground Coordination

The CG of the 1stMAW was designated as Deputy CG III MAG (Air) and as such he was the Tactical Air Commander for III MAF.

In Vietnam, from March 1966 when the 1stMarDiv entered the country, until November 1969 when the 3dMarDiv redeployed to Okinawa, there were two Marine divisions in III MAF. The Marine Corps could not deploy another wing for reasons pointed out earlier, but the 1stMAW was reinforced to the limit of the Corps' resources so it could support two reinforced divisions. Two LAAM battalions and two helicopter MAGs were deployed plus one air support squadron for each division.

The wing was short two or three transport helicopter squadrons, but no additional squadrons were available. The available squadrons were managed centrally by the wing in order to get the most out of them

Although an air support squadron was placed with each division, it became evident that more authority was required at the DASC. This point was made abundantly clear when the two Marine divisions became geographically separated with one or two Army divisions employed between them. When the 3dMarDiv was operating in Northern ICTZ, it was well removed from the 1stMAW Command Post and TADC at Da Nang. The communications were not fast enough to permit command decisions to be made about aviation problems. The 1stMAW solved this problem by assigning an Assistant Wing Commander and a few staff officers to the DASC at the 3dMarDiv Command Post and empowering him to make decisions in the name of the Wing Commander regarding air support. Later, when it wasn't always feasible to have a brigadier general present, a colonel was assigned to each of the division DASC's and they had the same command authority. This arrangement worked well and provided a one-for-one relationship, air-to-ground, particularly in the vital area of helicopter support. Coordination was vastly improved.

Employment

Anti-Air Warfare Operations

Vietnam, at least as far as the war in the south was concerned, was not a fighter pilot's war. There were no air-to-air engagements for Marine squadrons. No aces.

But there was a possible threat. So there had to be an air defense system and capability, and it was exercised under the terms of the agreement signed by Generals Moore and McCutcheon. The Marines provided two battalions of Hawk surface-to-air missiles for close-in defense at Da Nang and Chu Lai, F-4 Phantoms on hot pad alert, and an early warning and control capability through its air control squadron.

The Marine LAAM battalion is part of the overall anti-air warfare function. Its principal role is in close-in air defense. The battalion is normally a subordinate unit of the Marine Air Control Group, because in actual operations it is linked to the TAOC which provides information on friendly and enemy air traffic. The TAOC also normally gives "commence" and "cease" fire orders to the missiles.

One LAAM battery arrived in Vietnam in February 1965 and took position on the airfield at Da Nang. Subsequently it moved to Hill 327 west of the field. The two other firing batteries of the battalion eventually were placed on Monkey Mountain east of Da Nang, and in the Hai Van Pass to the north. Part of one of the batteries, known as an assault fire unit, was emplaced on Hill 55 eight miles south of the Da Nang vital area. The best defense of the installations at Da Nang would call for five battery sites, but adequate real estate did not become available until months later.

The 2d LAAM Battalion landed at Chu Lai in September 1965, and set up its firing batteries north and south of the SATS airfield. There were no elevated positions, but this posed a problem for any potential attacker as well.

Although neither battalion fired in anger, they did conduct live practice firings annually in order to keep their state of training high. In addition to firing at radio controlled drones, they fired at targets towed by manned fighter planes.

Offensive Air Support Operations

The main employment of Marine jets was in the delivery of air-to-ground ordnance in direct and close support of ground troops.

In this connection there were some local rules of engagement which had developed over the years, influencing the tactics and techniques to be employed. With very few exceptions, all air strikes had to be controlled by an airborne controller, and most had to have a political as well as a tactical clearance. There was good reason for this. The population was spread out over a considerable area along the coastal region and the U. S. and Vietnamese ground units were operating mainly in the same area. This led to the employment of Forward Air Controllers (Airborne) (FAC[A]). Thus, in a departure from prewar practice, the role of the FAC on the ground was minimized as far as control of air strikes was concerned. However, he had other useful employment.

The O-1 aircraft was used initially for this purpose. The Marine O-1s that were brought into Vietnam were rapidly approaching the end of their service lives, however, and on 1 September 1965, the Marine Corps stopped using them. The OV-10A, which was scheduled to replace them, did not become available until July 1968. To partially alleviate this situation, Headquarters Marine Corps and the Naval Air Systems Command managed to locate about a dozen old O-1s and had them overhauled and airlifted to Vietnam. These were too few, however, so the Marines had to rely on Army observation aircraft and Air Force FAC(A)s for those tactical air control missions demanding an airborne controller. The Air Force used the O-1 initially and later the OV-10A and the Cessna O-2. The latter is a small twin-engine, light aircraft with the engines in line. The one in front drives a tractor propeller and the one in the rear a pusher prop.

In addition to FAC(A)s, the Marine Corps employed Tactical Air Coordinators (Airborne) or TAC(A)s. Whereas FAC(A)s flew low performance aircraft and

The Marine Corps' "air-ground team" displayed its standard, but still virtually unstoppable, power sweep when Marine infantrymen who had just landed by helicopter came under fire in a January 1966 operation. Winging past a bomb explosion from another Crusader, an F-8 from VMFAW-312 went after Viet Cong mortar positions which were firing on the landing zone.

operated over friendly terrain and within range of artillery support, the TAC(A)s flew high performance jets and operated over territory controlled by the enemy. Their mission was to coordinate various strike aircraft and to ensure they hit the correct targets. In this role the Marines first used the two-seat F-9, but beginning in late 1967 they employed the two-seat TA-4F. These aircraft provided two sets of "eyeballs" rather than one and gave the TAC(A) an increased visual observation capability. The jet performance added a higher degree of survivability to the mission.

The Corps removed one of the two FACs it had in each infantry battalion because of the few opportunities offered them to control strikes and because their aeronautical talent could better be used elsewhere. The one remaining FAC plus the Air Liaison Officer, both aviation officers, continued to carry out their other responsibilities, which included advising their battalion commander on the employment of air support, requesting such support, and controlling helo operations and helo landing zones. This became big business in Vietnam. When the opportunity presented itself, the FAC did control air strikes from the ground.

The arrival of the A-6 aircraft in Vietnam introduced an advanced avionics weapon system. This system was further improved, as far as close air support is concerned, when the Marines deployed small radar beacons for use with their ground FACs. With this beacon, known as RABFAC, a FAC's precise position on the ground could be displayed on the radar scope in an A-6. The FAC could provide the bearing and distance of the target from the beacon, plus the elevation difference between the two, and the bombardier-navigator in the A-6 could enter this data into the weapon system computer, and bomb the target in bad weather or at night with accuracies approaching that of A-4s in clear, daylight deliveries.

The A-6 aircraft displayed great versatility and lived up to the expectations of those who pushed its development after the Korean War. It is the only operational aircraft that has a self-contained all-weather bombing capability including a moving target indicator mode. In this role it was used rather extensively in the monsoon season, not only in South Vietnam but also in Laos and over the heavily defended area of North Vietnam. The usual bomb load was 14,000 pounds.

Both the A-4 and F-4 were used in offensive air support with great success. The average bomb load for the A-4 was about 3,000 pounds, and for the F-4 about 5,000 pounds. These aircraft were generally fragged against planned missions, but they could also be scrambled from the alert pad, or they could be diverted in flight to higher priority targets.

The F-8 was also used during the period December 1965 through May 1968. It was in the process of being replaced in the Marine inventory by the F-4, but while it was in Vietnam it did a fine job in air-to-ground missions.

The F-8 was also the only Marine strike aircraft to be based on board a carrier of the Seventh Fleet during the Vietnam War. Marine All-Weather Fighter Squadron 212 (VMF[AW]-212), commanded by Lieutenant Colonel Charles H. Ludden, was embarked in the attack carrier USS *Oriskany* (CVA-34) in 1965 when she was operating off Vietnam. The squadron pilots were trained as fighter pilots but, when the carrier arrived in the Gulf of Tonkin, the urgent need was for attack aircraft which could deliver bombs. The primary mission of VMF (AW)-212 became the attack of ground targets, and the squadron flew strikes in North and South Vietnam. Both the Navy and Marine Corps would have liked to have had more Marine squadrons afloat, but if they had been afloat, they wouldn't have been ashore and the Corps couldn't do both. Now that we have cut force levels in Vietnam, the Marine Corps has once again deployed aviation units aboard carriers.

During 1965, and into the early part of 1966, there was a shortage of aviation ordnance. Time was required to set up production lines in the United States and get the pipeline filled all the way to Vietnam. In the meantime, the 1stMAW used what was available in contin-

gency stocks, and this included a great number of old high drag "fat" bombs. The old bombs had a much larger cross section than the new ones, hence they added drag to the aircraft and reduced its speed and radius of action. Again because of their cross section, fewer of the old bombs could be loaded on multiple bomb racks. The wing never lost a sortie because of ordnance, but it did have to substitute items on occasion because the preferred store was not available. In order to husband its resources, the wing commander issued a message directing that if ordnance could not be dropped on a worthwhile target, it would be brought back to base, not jettisoned.

By late 1966, a wide range of ordnance was available, including 250, 500, 1,000, and 2,000-pound bombs; 2.75 inch and five-inch rockets; napalm; 20mm. cannon; smoke; and certain other stores for special targets. There is still a requirement, however, for better aviation weapons. We need to get better first pass accuracy to reduce the number of passes over the target. One promising way to improve effectiveness appears to be offered by lasers.

Up to April 1966, ComUSMACV was not involved in the air war in North Vietnam. That war was conducted by the Commander-in-Chief, Pacific Fleet (CinCPacFlt), and Commander-in-Chief, Pacific Air Force (CinCPacAF). 1stMAW electronic EF-10Bs flew missions in the north before this, but they did so in support of the Seventh Fleet or the Seventh Air Force as subordinates of PacFlt and PacAF. On 1 April 1966, ComUSMACV was authorized by CinCPac to conduct air strikes in, and to the north of, the DMZ in what was known as Route Package One. By summer, Marine aircraft were assigned to strike there against artillery and rocket sites as well as other military targets.

With the addition of the A-6A to its inventory, the 1stMAW had the finest all-weather bombing aircraft in the world. Late in 1966, A-6s began striking targets as far north as Hanoi and Haiphong and carried on until the bombing halt in 1968, striking mostly at night. North Vietnam was, of course, heavily defended with antiaircraft artillery and surface-to-air missiles. EA-6As provided electronic jamming in support of the strike birds, and Marine F-4Bs flew cover for them to keep MIGs off their backs. Additionally, the two Marine A-6 squadrons flew strikes in other route packages as directed.

Reconnaissance Operations

As noted earlier, VMCJ-1 was one of the first fixed-wing squadrons to deploy to Vietnam. In more than five years of continuous operations from Da Nang, the squadron made major contributions in the field of electronic warfare and imagery reconnaissance.

During the opening phases of the air war against North Vietnam, the EF-10Bs of VMCJ-1 were the only jet tactical electronic warfare aircraft available to provide support for U. S. Air Force and Navy strikes. To meet the requirements levied on the squadron, active electronic countermeasures were emphasized. Electronic reconnaissance was conducted enroute to and from the target. In the target area, jamming occupied most of the electronic countermeasure operators' attention. In July 1965, U. S. Air Force aircraft conducted the first strikes in history against surface-to-air missile (SAM) sites. Six EF-10Bs from VMCJ-1 supported the strike. There was no loss of aircraft to radar controlled weapons. The Navy also had an electronic warfare capability, but its EKA-3 was a combination tanker-electronic warfare aircraft and was limited to standoff jamming as opposed to close-in jamming in company with the strike aircraft. The Navy also had some EA-1s, but these were propeller-driven aircraft and were not able to keep up with the jets, hence, they too were used in a standoff role. The Air Force effort in electronic warfare was devoted almost exclusively to larger aircraft and in a "strategic," rather than a tactical, role. After the war in Vietnam got underway, they did modify some B-66 aircraft to the electronic mission.

In November 1966, the EA-6A made its debut in the theater. The quantum increase in electronic warfare capability represented by the EA-6A came in the nick of time. The cancerous spread of SAMs throughout North Vietnam made an eventual confrontation between Marine attack aircraft and SAMs inevitable. In April 1967, a Marine A-4 was shot down by a SAM from a site located in the DMZ. In response to the new threat, EF-10Bs began a continual patrol along the DMZ during hours of darkness when the SAMs were prone to fire. The more sophisticated EA-6As provided electronic warfare support for missions against targets located in the high threat areas of the north. Because of the need for electronic warfare aircraft, it was not until 1969 that the old EF-10Bs were at last able to leave Vietnam. As of this writing the EA-6A is the only tactical electronic warfare aircraft in any Service that can accompany strike aircraft to the target and maneuver with them.

In the relatively new art of electronic warfare, aircraft from VMCJ-1 performed in every role: escort for B-52s, support for tactical air strikes, and as intelligence collectors. Lessons learned were documented, tactics became more sophisticated, and hardware was evolved to increase the effectiveness of the electronic warfare capability.

The other side of the VMCJ-1 house, imagery reconnaissance, was equally engaged. Collection of imagery intelligence in the fight against the hard-to-locate enemy of the south varied to a great degree from flights over

relatively well defined targets in the north. In the south, the usual imagery reconnaissance mission produced evidence of enemy activity, but the enemy was seldom pinpointed. To determine enemy intentions, reconnaissance flights over the same areas were conducted periodically. Interpreters then looked for telltale indications of change or deviations from the norm that had been established by previous flights. With the RF-8A, the imagery coverage of large areas required by this type of intelligence determination was confined to periods of daylight hours and relatively good weather. Replacement of the RF-8A with multi-sensor RF-4B aircraft, beginning in October 1966, provided VMCJ-1 with an around-the-clock collection capacity. As experience was gained with the new systems, night infrared reconnaissance played an ever increasing role in the overall intelligence collection effort.

TA-4Fs flew hundreds of missions in the Route Package One area of North Vietnam, performing in the visual reconnaissance as well as in the TAC(A) role. They located SAM sites, truck parks, supply dumps, and other targets, and then controlled other strike aircraft against them. They also spotted and controlled naval gunfire for the USS *New Jersey* (BB-62) and other ships that participated in bombarding the north.

Visual reconnaissance by low performance aircraft is still an absolute necessity. Maneuverable, fixed-wing aircraft still have a place in this role, and the OV-10A performed better than expected. However, there is a requirement for a quieter aircraft that can overfly targets without being detected. Had such an aircraft been available, it could have been used very profitably to patrol the rocket belt around the vital area of Da Nang. There is a prototype aircraft designated the YO-3 that gives promise of this capability, but the Marine Corps does not have any.

Fixed-Wing Transport Operations

Marine transports and helos were not included under single management. The Marines had two models of fixed-wing transports in Vietnam, the venerable C-117 and the work-horse KC-130. The former was assigned only in small numbers, one per group, and was used for organic logistic support. It became apparent in 1965, however, that there were some voids in the Marine capability as far as aircraft were concerned, so the C-117s were rapidly drafted to fill some of these. Examples were flare drops, radio relay, and use as an airborne control center. Later on, US-2Bs and C-1As were assigned to the wing, and sometimes they were also used for some of these tasks.

Marine Refueler Transport Squadron 152 (VMGR-152) was based in Japan when the war began, but it moved to Okinawa late in 1965. It kept a four (or more) plane detachment at Da Nang. This little detachment did everything imaginable as far as air transport was concerned. It hauled men and equipment between major bases in Vietnam and to outposts such as Khe Sanh that had suitable airstrips, and it air-dropped to those that did not. It provided aerial refueler service for Marine jets, particularly those that operated up north. In 1965, whenever the strip at Chu Lai was less than eight thousand feet and A-4s were required to take off with reduced fuel loads, there was a KC-130 tanker in orbit to tank them after climb-out. These Hercules also served as airborne direct air support centers and as flareships. They were a reliable and versatile transport.

The KC-130 is getting on in years, however, and in spite of the fact that it was retrofitted with larger engines, the aircraft is only marginally capable of refueling a loaded A-6 or F-4 in flight.[10] Furthermore, a considerable number of them are required to provide refueling service for a fighter squadron ferrying across the Pacific. Because they can't get to the same altitude as the jets, the jets have to descend to receive fuel. This requires blocking off a lot of airspace and frequently this is a constraint on a long trans-oceanic ferrying operation since it interferes with commercial flights.

What the Corps needs is a transport like the C-141, modified to be similar in capability to the KC-130.

The Corps also needs a replacement for the obsolete C-117s and those C-54s still on hand. It is willing to accept a smaller number of more modern aircraft to carry out the missions that are not applicable for the KC-130 or 141. A combination of T-39s and something like the Fiarchild-Hiller F-227 would give the Corps a modern high-speed passenger and cargo hauling capability.

Helicopter Operations

Vietnam was certainly a helicopter war for U. S. forces. It is difficult to envisage how we would have fought there without them.

After years of study and development, the Marine Corps pioneered the use of helicopters in ground warfare in Korea. In the following years it planned to build up its force, and simultaneously it pursued the development of more capable aircraft. The Corps' basic requirement was for adequate helicopter lift to execute the ship-to-shore movement in an amphibious operation. To do this two basic transport helicopters were decided on, one for medium lift and one for heavy lift.

Although the Corps was authorized eighteen perma-

[10] A jet heavily laden with bombs or other external stores has to use power or fly faster to maintain a given altitude than one not so loaded. A KC-130 is much slower than a jet and cannot climb to normal jet operating altitude, so fueling is at less than the best altitudes and speeds for the jets, and the jet pilot can have a difficult time making his plug-in and holding formation

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A KC-130 Hercules transport air-drops supplies to the beleaguered Khe Sanh Marine combat base in January 1968. To safeguard helicopter landing of supplies to the garrison, gunships and jets worked the area over with napalm, rockets, 20-mm., and smoke, and as the supplies were delivered, the jets climbed up to waiting KC-130 tankers, were refueled in the air, and returned to their bases.

nent transport helicopter squadrons and two temporary ones for Southeast Asia, it only deployed ten to the Western Pacific. The remaining nine (one temporary one was never formed because of lack of resources) were required to remain in the United States to train replacement pilots for the overseas pipeline. Additional squadrons could not be deployed because they could not be supported. The deployment of even one more would have upset the delicate balance of replacement training versus overseas requirements.

As part of the planning, programming, and budgeting cycle that takes place annually in Washington in

each of the Services and in the Office of the Secretary of Defense, the Marine Corps accepted a change in its transport helicopter mix, from fifteen medium and three heavy to twelve medium and six heavy.[11] With the one temporary squadron added, this gave thirteen and six. Eventually seven of the mediums and three of the heavies were stationed overseas.

The transition from the UH-34 and CH-37 to the CH-46 and CH-53, respectively, represented a major increase in capability, but, at the same time, there were problems involving acceptance of the new models, shaking them down, training pilots and maintenance personnel, developing techniques and procedures, and establishing an adequate supply posture.

Squadrons equipped with the twelve year-old UH-34 bore the brunt of helo operations in 1965 and for well over a year thereafter. CH-46s began to arrive in Vietnam in March 1966, when Lieutenant Colonel Warren C. Watson's HMM-164 flew to Marble Mountain from the USS *Valley Forge* (LPH-8). It was not until 1969 that all UH-34s were withdrawn. On 18 August, the blades of the last UH-34 were folded, thus marking the end of an era for Marine Corps helicopters in Vietnam. The UH-34 had performed for over seven years there in an outstanding manner.

A detachment of obsolescent CH-37s arrived from Santa Ana, California, in the summer of 1965 and did yeoman service pending arrival of the CH-53 in January 1967, when Major William R. Beeler brought in a four-plane detachment from HMH-463. By the end of the year there were two full squadrons of CH-53s in Vietnam.

In Vietnam there were several technical problems that had an impact on helicopter employment. First of all, the tropical environment reduced payload because of characteristically high temperatures and humidity. Second, the sandy and dusty landing zones created extensive maintenance problems, particularly for engines. Filters had to be developed for all helos to reduce the amount of foreign particles that were being ingested into the air inlets. These filters increased aircraft weight and lowered engine thrust by a few per cent. Third, there was a requirement to install additional armor in all helos to protect their vital parts against the ever increasing enemy antiaircraft fire. Finally, the addition of armament and gunners naturally reduced proportionately what could be carried.

As a matter of necessity the transports were armed with door guns. The H-34s could only take the 7.62-mm. machine gun, and two of these with a gunner (the crew chief manned one gun) reduced the troop carrying capacity by two men. The CH-46 and -53 helos were able to carry .50 caliber machine guns, one on each side, and although their loads were reduced too, the reduction, particularly in the case of the CH-53, was not so noticeable.

During the period October 1966 through October 1967, the Ch-46 experienced a series of catastrophic accidents which caused the Corps and the Naval Air Systems Command to take a hard look at the design of the aircraft. These accidents occurred in the United States as well as Vietnam and in most cases involved failure of the aircraft's rear pylon. A program was initiated to strengthen that section of the airframe, and it was accomplished in two phases. The first improvement was incorporated in Okinawa for Vietnam-based aircraft. The second phase was performed later at overhaul. The modification program had an impact on helo operations in Vietnam because fewer were available for combat operations. To partially offset this shortage, some UH-34s were airlifted to Da Nang from Cherry Point, North Carolina, in Military Airlift Command transports. Following the modification program, the CH-46 performed in an outstanding manner.

The Marine Corps experimented with armed helicopters as early as 1950, but it did not pursue an active program for several reasons. The transport helicopters in the inventory before the war began in Vietnam were limited in payload to begin with, and the Corps chose to devote their full load capacity to carrying men and equipment, while relying on attack aircraft to escort the helicopters. At the same time, it sought to procure a light helicopter which could perform a myriad of tasks, including the role of a gunship. This program was a long time in materializing, but it finally resulted in the UH-1E. The Army, on the other hand, with no fixed-wing attack aircraft, depended heavily on "gun birds."

One gunship version of the Marine UH-1E was armed with a nose turret which could be elevated, depressed, and swung left and right. In addition, weight permitting, it could mount left and right fixed, forward-firing machine guns, or 2.75 inch rocket pods. A .30 caliber machine gun could also be installed in each of the two side doors.

The helo gunship proved to be indispensable. It was more immediately available than jets, more maneuverable, and it could work close-in with transport helicopters.

The UH-1E has been used by the Marines since 1965

[11] The Corps did not request a change in helo mix. It had just completed a study that essentially reaffirmed the 5 to 1 mix of medium to heavy helos but it also recommended an increase in total numbers to meet the Marine Corps' total operational requirement. The Office of the Secretary of Defense directed the change in mix from 5 to 1 to 2 to 1. One probable reason was that an increase in the percentage of heavies would increase the total lift capability of the fleet so that additional squadrons would not have to be approved. The Marine Corps did not appeal the mix decision. At the time it was made, the CH-46 tail problem was under serious study and it appeared desirable to have a greater percentage of CH-53s on that score alone.

The left-hand CH-46 is diving toward the ground just before levelling off and landing troops of the Ninth Marines in rugged territory near the western end of the DMZ in September 1968. On the opposite page another CH-46 carries an external load of ammunition to a fire support base in the same general area in 1969.

to perform many tasks. They include serving as gunships; as command and control craft for MAF, division, wing, regimental, and occasionally battalion commanders; for liaison, courier, and administrative runs; for visual reconnassiance and observation; as aerial searchlights when special equipment was installed; as platforms for various kinds of sensors; as transportation for VIPs (and this was no small order); for medical evacuation of casualties; and for miscellaneous roles.

In 1965, the Corps was authorized 12 light helos per wing, and these were included in each of the three VMO squadrons. Two additional VMOs were authorized for the war in Southeast Asia and in 1968 the Department of Defense authorized the Marine Corps to convert them to three light helicopter transport squadrons (HML), giving the Corps three VMOs and three HMLs. The VMOs were to have 18 OV-10As and 12 light helos each, and the HMLs were to have 24 light helos. Two of each kind of squadron were on hand in the 1stMAW by the latter part of 1968. This provided 72 light helos (including gunships) to support two reinforced divisions, but it still was not enough to meet all of the requirements. If there is any lesson that has been learned in Vietnam, it is that the Corps needs more light helicopters. The statistics accumulated over the past several years indicate that on the basis of hours of use there is a requirement for these aircraft nearly equal to the combined total of medium and heavy helicopters.

The AH-1G Cobra was not available for Marine use until April 1969. The gunship was accepted with enthusiasm by the pilots, performed well in a fire suppression role, and was maintained at a rather high rate of availability. Organizationally, they might be in a VMO or an HML. Ideally, 24 of them would form an HMA, one in each wing.

The Corps has under procurement twin-engine versions of both the UH-1 and the AH-1, and these should be major improvements over the current single-engine configurations. The benefits will be increased payload capability under a wider range of temperatures and altitudes, and the added reliability provided by having a second power plant. The twin Cobra was due to enter the force in 1970, and the twin UH-1 in 1971.

The first UH-34 squadrons were employed in much the same way as they had been during the "Shufly" years. They lifted troops and cargo on either tactical or administrative missions and performed the usual spectrum of miscellaneous tasks. They conducted the first night assault in Vietnam in August 1965. The 2d battalion, 3d Marines, was lifted into Elephant Valley, northwest of Da Nang.

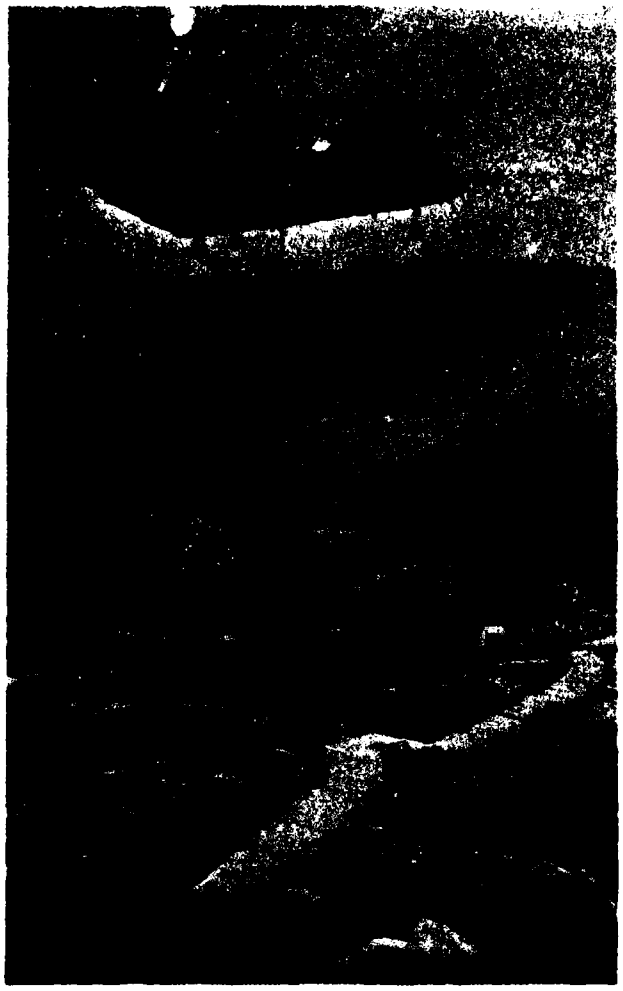
By the end of 1965, Marine transport helos were lifting an average of 40,000 passengers and over 2,000 tons of cargo a month while operating from their main bases at Ky Ha and Marble Mountain.

In 1968, the helicopters carried an average of over 50,000 men and over 6,000 tons of cargo a month. This increase in capacity was due mainly to the substitution of CH-46 helos for UH-34s between 1966 and 1968. The increase in the requirement came mainly because of heavy assault operations against North Vietnamese Army divisions which had invaded the I Corps Tactical Zone. And in the first half of 1970, even after redeployment had commenced, they were lifting more than 70,000 passengers and 5,000 tons of cargo in a month. Part of this increase can be attributed to the increased use of the CH-53 in troop lifts.

Even back in "Shufly" days, Marine helicopter pilots learned to expect all sorts of strange cargo on the manifest. They often had to move Vietnamese units, and this included dependents and possessions, cows and pigs included.

As larger transports entered service, larger loads were carried. And this of course included larger animals. HMH-463 with its CH-53s was tasked to move a remotely located Vietnamese camp. Included in the lift requirement were two elephants. Not big ones, but nevertheless elephants. These pachyderms were tranquilized and carried externally with no problem. The crews named them "Ev" and "Charlie," which proves that they had found some time to read the newspapers sent out from home.

With the CH-53, the 1stMAW could retrieve battle damaged UH-1s, UH-34s, and CH-46s that might otherwise



have been destroyed. The CH-53 could not lift another 53, however, under operating conditions in Vietnam. There is a need for a small number of heavy lift helicopters that can retrieve all helicopters and all tactical fixed-wing aircraft except transports. Such a heavy lift helicopter would also be useful in lifting heavy engineering equipment and other loads beyond the capability of the CH-53. The Army's CH-54 Skycrane's lifting capability is not sufficiently greater to make it a really attractive choice. A payload of at least 18 tons is required. Furthermore, the helicopter should be compatible with shipboard operations, and it should be capable of being disassembled and transported in C-5A or C-141 cargo planes.

One of the most hazardous helicopter missions was the evacuation of casualties at night or in poor weather. The problem was twofold: finding the correct zone, and getting in and out without getting shot up. Since most medevacs were called in by troops in contact with the enemy, the available landing zones had no landing aides to help the pilot, and so he had to rely on an accurate designation and visual identification or confirmation. At night a flare aircraft was often required to orbit the area and illuminate the zone so it could be positively identified. Gunships or jets would provide fire suppression, if required, and the evacuation helo would make a fast approach and retirement, making maximum use of whatever natural concealment might be available.

There is no doubt about it, the helicopter saved countless lives in Vietnam. If the casualty could be evacuated to a medical facility in short order, his chances of survival were very good.[12]

Although a small number of helos were fragged each day specifically for medical evacuation, any helicopter in the air was available for such a mission, if required, and many evacs were made by on-the-scene aircraft. These helicopters of course did not carry hospital corpsmen as did those specifically fragged for the mission, but they offered the advantage of being closer, and thus quicker to respond.

The number of medevac missions flown by Marine helicopters is large indeed—in the peak year of 1968, nearly 67,000 people were evacuated in just short of 42,000 sorties—and a great many of the helos sustained hits and casualties themselves in the process of flying these missions. As a group, helicopter crews were awarded a very high percentage of Purple Hearts for wounds received in combat. They were and are very courageous men.

Multi-Function Operations

The majority of operations conducted by III MAF required some degree of air support, and in most cases the support involved two or more tactical air functions. A complete recounting of all these operations is beyond the scope of this article. However, some representative examples are in order so that the reader may appreciate the role of Marine air in MAF operations.[13]

As the MAF units began to undertake offensive operations, helicopters were essential for troop transport and logistic resupply, and jets were equally important for close air support. Operation Double Eagle in late January and early February 1966 illustrates several techniques and tactics that were used quite frequently in later operations. This was a multi-battalion force commanded by the Assistant Division Commander of the 3dMarDiv, Brigadier General Jonas M. Platt. The operational area was southern I Corps. Coordination was required with Vietnamese Army units in I Corps and with U. S. Army units in II Corps, specifically the 1st Air Cavalry Division. One Marine battalion and helo squadron belonged to the SLF and were embarked in the USS *Valley Forge*

[12] See Doctors and Dentists, Nurses and Corpsmen in Vietnam by Commander F. O. McClendon, Jr., MSC, in *Naval Review 1970*. The patient's chances were about 99 per cent once admitted to a Navy field hospital or hospital ship.

[13] For more details on Marine operations in Vietnam, see Brigadier General Simmons' excellent essays in recent *Naval Reviews*.

and other ships of the Amphibious Ready Group. MAG-36 was placed in direct support of Platt's Task Force Delta. Colonel William G. Johnson, Commanding Officer of MAG-36, located his command post adjacent to Platt's. He also established a helicopter operating area with limited maintenance support. This became known as "Johnson City." Logistic support was added: fuel, ammunition, supplies, and a medical aid station. This was in effect a Logistic Support Area (LSA), and it was essential to establish one in order to support mobile ground operations such as those in which General Platt was engaged. As the war progressed, these LSAs would become strategically located throughout the Corps area and close to main roads so that the bulk of supplies could be brought in by truck convoys. If an airfield were near, fixed-wing transport could be used. MAG-36 and Task Force Delta had a mini-DASC located at "Johnson City" through which they could control aircraft assigned to them. Helicopters were immediately available through Colonel Johnson. Jets had to be requested, but the route was direct to the TADC which could scramble A-4s from Chu Lai or F-4s from Da Nang.

Major General McCutcheon was relieved as CG 1stMAW by Major General Louis B. Robertshaw on 15 May 1966. The Struggle Movement within South Vietnam which led to the establishment of the Ky government in Saigon was still unresolved at this point, and an upsurge of political activity forced the cancellation of the planned change-of-command ceremonies. A small impromptu one was held outside III MAF Headquarters.

During General Robertshaw's tenure, the center of action tended to shift north, both on the ground and in the air. In July and August 1966, Operation Hastings produced the highest number of enemy killed to date. The Prairie series of operations, which began shortly thereafter, took place in the same locale, just south of the DMZ. Names like Dong Ha, the "Rockpile," and Con Thien came into prominence. But there was another name which was destined to become even more prominent, Khe Sanh. Late in April 1967, a Marine company made solid contact with North Vietnamese regulars northwest of Khe Sanh. On the 25th, the 3d Battalion of the 3d Marines was helo-lifted into Khe Sanh, and the next day the SLF battalion (2d Battalion, 3d Marines) was heloed into Phu Bai and thence lifted by KC-130 to Khe Sanh.[14] Both battalions took the offensive and attacked the enemy on Hills 881 South and North. In two weeks of bitter fighting, the 1stMAW flew over one thousand sorties in around-the-clock close and direct air support of Marine infantry in the area. Here was an example of the integrated employment of fixed- and rotary-wing transports, close air support, and air control.

Major General Norman J. Anderson relieved Robertshaw on 2 June 1967. His tour was marked with a further buildup of North Vietnamese forces in Northern I Corps and the introduction of single management. The enemy's Tet offensive of 1968, the battle of Hue, and the campaign of Khe Sanh all occurred on his watch. During the Khe Sanh campaign, the entire spectrum of tactical air support was called into play—not only Marine, but also Air Force, Navy, and Vietnamese Air Force. And SAC's B-52s dropped their heavy loads upon the enemy in the surrounding hills.

One example of how all Marine tactical air functions could be coordinated into a single operational mission was the "Super Gaggle." This was a technique developed by the 1stMAW to resupply the hill outposts in the vicinity of Khe Sanh. These hills were surrounded with heavy concentrations of enemy antiaircraft weapons, and every flight by a helo into one of the outposts was an extremely hazardous mission. Additionally, the weather in February was typically monsoon, and flying was often done on instruments. The "Super Gaggle" was a flight of transport helos escorted by A-4 jets and UH-1E gunships, all under the control of a TAC(A) in a TA-4F. The key was to take advantage of any break in the weather and to have all aircraft rendezvous over the designated point at the same time.

The operation was usually scrambled at the request of the mini-DASC at Khe Sanh on the basis that a break in the weather was expected shortly. The TAC(A) and KC-130 tankers took off from Da Nang, the A-4s from Chu Lai, UH-1E gunships from Quang Tri and CH-46s from Dong Ha. All aircraft rendezvoused over Khe Sanh within a 30 minute period under control of the TAC(A). Instrument climb-outs were often required due to weather. Even the CH-46s with external loads would climb out on a tacan bearing until they were on top. Under direction of the TAC(A), and taking advantage of the break in the clouds if it did develop, the area was worked over with napalm, rockets, 20-mm., and smoke. The CH-46s let down in a spiral column and deposited their loads on Khe Sanh and the hill outposts in less than five minutes and then spiralled back on top and returned to their bases. The jets also climbed back on top, plugged in to the KC-130 tankers for refueling, and headed back to Da Nang and Chu Lai.[15]

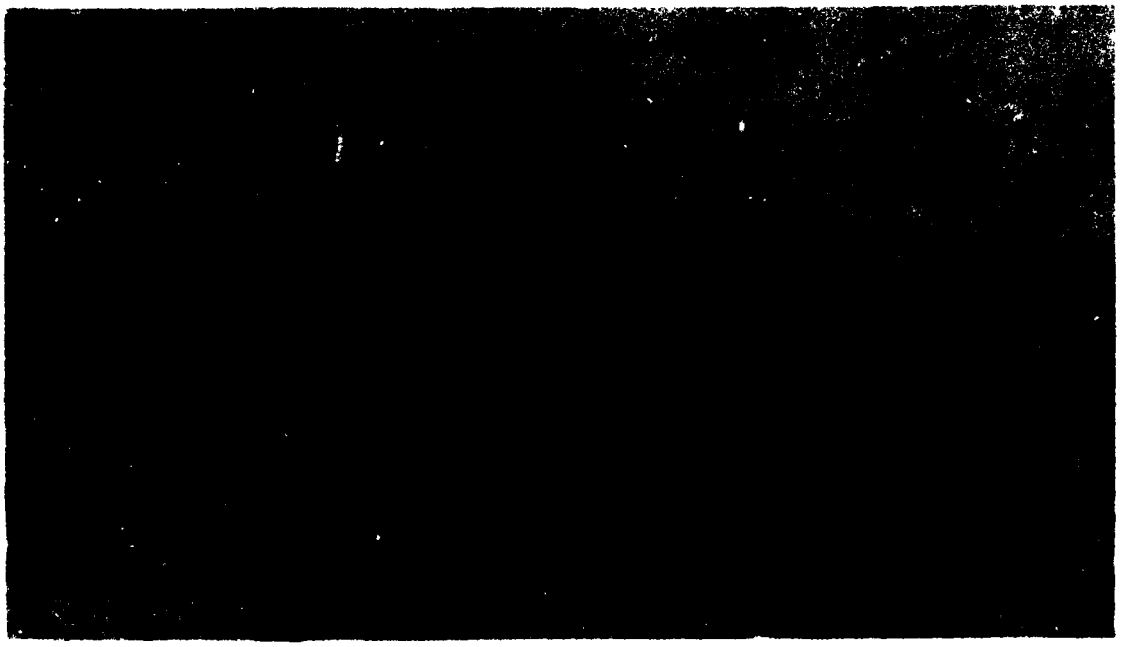
The fourth commander of the 1stMAW was Major General Charles J. Quilter. He relieved Anderson on

[14] Before the Seabees improved the strip with AM-2 matting, in the summer of 1966, there was a short strip at Khe Sanh made of pierced steel planking. When the base was closed in 1968, the AM-2 was recovered.

[15] Distance to Khe Sanh from
a. Dong Ha is 23 nautical miles
b. Quang Tri is 27 nautical miles
c. Da Nang is 94 nautical miles
d. Chu Lai is 136 nautical miles.

19 June 1968. His tour saw a reversal of the trend that started in General Robertshaw's era. The enemy withdrew after taking severe beatings at Khe Sanh, Hue, and elsewhere in ICTZ. The enemy gave up conventional large scale operations and reverted to the strategy of small unit actions and harassment.

III MAF forces underwent an operational change too. Once the 3dMarDiv was relieved of the requirement for a static defense along the strong-point barrier, they were free to undertake a mobile offensive in Northern ICTZ and strike at the enemy in the western reaches. One of the finest examples of air-ground teamwork took place during the period of January through March 1969.



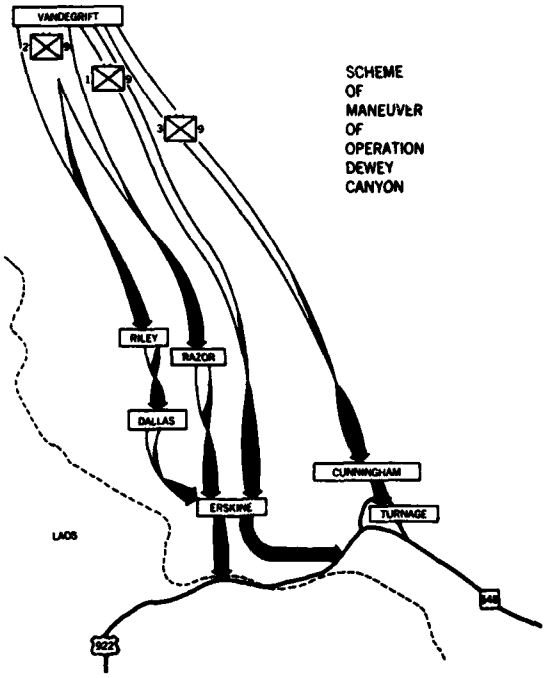
Since 1965, the UH-1E has served as a gunship, a command and control craft, a liaison, courier, and administrative support craft, a visual reconnaissance and observation craft, a platform for aerial searchlights and sensors, and a means of transportation for VIPs. But, perhaps its finest hours were served as, almost without regard to weather, it helped to evacuate casualties such as this Marine (center) wounded near Dong Ha in December 1967.

The code name of the operation was Dewey Canyon. The locale was the upper A Shau Valley and southern Da Krong Valley. This was a multi-battalion operation involving the 9th Marine Regiment, commanded by Colonel Robert H. Barrow, and two battalions of the 1st Vietnamese Army Division.

During the last week of the pre-Dewey Canyon period, Marine attack and fighter-attack aircraft from MAGs 11, 12, and 13 flew 266 sorties over the objective area, dropping over 730 tons of ordnance.

On 21 January, D-1, a "Zippo" team, was formed of representatives of the 1stMAW and 3dMarDiv. Infantry, engineer, helicopter, and observation aircraft specialists were included. This team was responsible to the overall ground commander for landing zone and fire support; base selection and preparation; and coordination of the helicopter assault.

Early on D-Day the initial landing zones (LZ) were prepared by fixed wing air strikes (made suitable for helo landings by bombing and strafing to reduce threat of opposition to a minimum), and elements of the 2d Battalion, 9th Marines, landed at 0800. In the rapid buildup that followed, CH-46s, under the control of the division DASC and under the protective umbrella of gunships and observation aircraft, brought 1,544 Marines and 46 tons of cargo into two LZs. By the evening of 24 January, a battery of 105-mm. howitzers from the



2d Battalion, 12th Marines, and the Command Post of the 9th Marines were in place on one of these landing zones, which became known as RAZOR.

The following day, three companies of the 3d Battalion were helo-lifted on to a ridgeline further forward, known as Co Ka Va. It would soon be developed into Fire Support Base (FSB) Cunningham, named for the first Marine aviator. In a few more days, elements of the 2d Battalion from FSB Riley pushed down the ridgeline to establish another FSB, Dallas, to guard the western approach to the area from Laos. To the east, the two Vietnamese battalions were lifted into two other bases. They would secure the left flank and cut off the enemy escape route to the east.

About the 1st of February, the "Crachin" season really began to make itself felt. This is a period when low clouds and drizzle cover the mountain tops in Northern I Corps and obscure visibility in the valleys.

Operation Dewey Canyon Air Operations Statistics

22 January–14 March 1969

Helicopter Support	*Fixed Wing*
14,893 Sorties	1,617 Sorties
5,050 Flight Hours	1,973 Flight Hours
3,515 Tons of Cargo	3,679 Tons of Cargo
21,841 Troops Lifted	390 TPQ Missions
611 Medevacs	

On 4 February, a company of the 3d Battalion moved into and occupied what was to become the last FSB for the coming infantry advance. Erskine was to be its name.

Marine helicopters continually worked out of FSB Vandegrift carrying essential supplies of ammunition, rations, and water to the various bases.[16] On the return trips they carried wounded back to aid stations. Often the weather precluded access to the area except by flying on instruments. Under such conditions, over 40 pallets of critically needed supplies were dropped by KC-130s and CH-46s under control of the TPQ-10 at Vandegrift.

When artillery was in place on both Cunningham and Erskine, the 9th Marines began moving on foot from their bases into the Da Krong Valley with battalions on line. Their objective was Tiger Mountain and the ridgeline that ran west from it. As they advanced, landing zones were carved out of the jungle with 2,000-pound bombs or, as a minimum, sufficient space was created so that a medevac could be performed by helo hoist, or an external load could be dropped to the troops on the ground.

On 17 February, Marine helicopter resupply during instrument conditions received its biggest boost. Instrument departure and return corridors were established to permit loaded helos to operate out of Quang Tri in support of the operation. The technique was the same as that employed during Khe Sanh operations. During the next month of corridor operation, over 2,000 Marine aircraft were funneled in and out of this highway in the sky to keep Dewey Canyon alive.

Other elements of the air component continued to seek out the enemy and to attack him. O-1, RF-4, EA-6, A-4, F-4, and A-6 aircraft all participated. And when emergency missions arose during darkness, OV-10A, C-117, or KC-130 aircraft were called in to provide illumination by dropping flares.

The 22nd of February saw the lead element of the 3d Battalion gain the crest of Tiger Mountain. In a few days it became FSB Turnage.

The 24th found the 1st Battalion in possession of the enemy's headquarters at Tam Boi. The 2d Battalion took control of the ridgeline overlooking Route 922, where it crosses from Vietnam into Laos.

The 27th marked the first time a TPQ-10 had ever been emplaced and operated from an FSB. One was placed on Cunningham and remained there for 17 days,

[16] Distances between Vandegrift and

Dong Ha	15 nautical miles
Riley	16 nautical miles
Razor	18 nautical miles
Dallas	19 nautical miles
Cunningham	20 nautical miles
Erskine	23 nautical miles
Tiger Mountain	26 nautical miles

Operation Dewey Canyon Results

Enemy Personnel Losses
1,617 KIA
4 POW
14 Detainees

Weapons Captured
1,212 Individual Weapons
215 Crew Served Weapons
12 122-mm. Guns
4 85-mm. Guns
13 82-mm. Mortars
12 60-mm. Mortars
24 57-mm. Recoilless Rifles
4 37/40-mm. AA Guns
4 23-mm. AA Guns
39 12.7-mm. AA Guns
20 7.62-mm. AA Guns

Ammunition Captured
7,287 122-mm. Arty Rounds
779 122-mm. Rockets
187 140-mm. Rockets
4,983 120-mm. Mortar Rounds
210 85-mm. Arty Rounds
23,171 82-mm. Mortar Rounds
994 75-mm. RR Rounds
33,509 60-mm. Mortar Rounds
2,004 57-mm. RR Rounds
13,521 B 40 Rockets
23,730 37 mm. AA Rounds
4,500 23 mm. AA Rounds
98,526 12.7 mm. AA Rounds
50,193 Grenades
9,576 Rifle Grenades
1,621 AT Mines
855 AP Mines
444 Claymore Mines
553,000 Small Arms Rounds

Vehicles Captured
66 Trucks
6 Truck Prime Movers
14 Bulldozers
3 APCs
1 Front Loader
1 Air Compressor
108 Bicycles

Rations Captured
110 Tons of Rice
2 Tons of Salt

Installations Seized
2 Major Headquarters
1 Base Hospital
2 Major Vehicle Maintenance Repair Shops
1 Major Communication Center

controlling 72 air strikes, ten A-6 beacon drops, and three emergency paradrops.

The days that followed turned up masses of enemy equipment and stores, and the quantity accumulated and sent back to our bases was easily the largest amount yet discovered during the war.

The 18th of March marked the final day of operation of Dewey Canyon. On this day virtually the entire resources of the 1stMAW were committed. Over 350 tons of cargo and 1,400 Marines were helo-lifted out of Turnage and Tam Boi without a casualty. These were the last two bases to be vacated. Gunships and jets flew close cover and close air support.

Perhaps the most notable accomplishment of the operation was that only one helicopter was lost in spite of the adverse weather and terrain and the efforts of a stubborn, well-trained, and professional enemy to counter the operation. Lieutenant General Richard G. Stilwell, U. S. Army, commander of all U. S. ground forces in Northern I Corps under CG III MAF, summed it up in a few words when he said, "Dewey Canyon deserves some space in American military history by sole reason of audacity, guts, and team play. I cannot applaud too highly the airmen of the 1stMAW in a variety of roles."

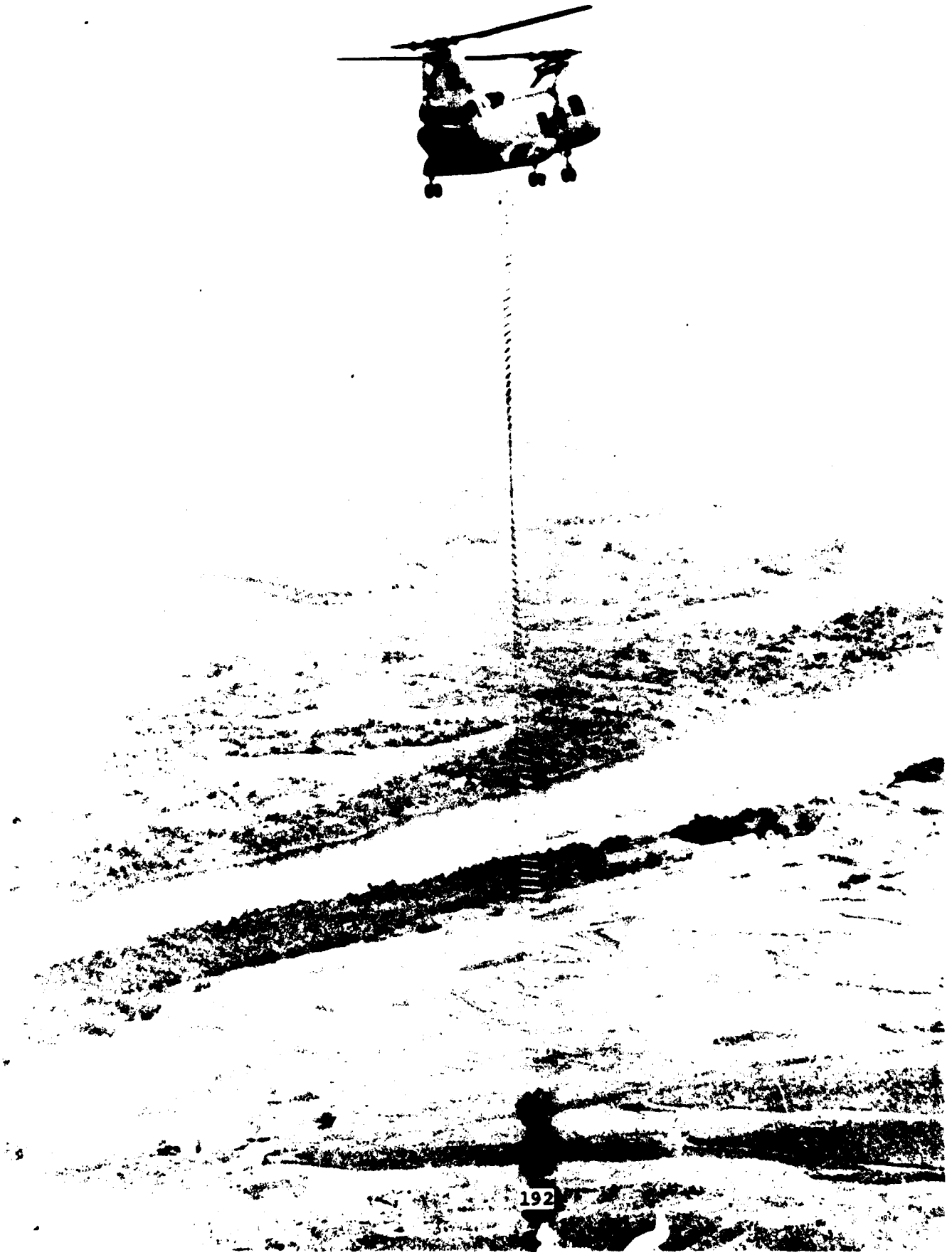
General Quilter was relieved by Major General William G. Thrash on 7 July 1969. Thrash took command when the wing was at its maximum strength and operating a peak number of facilities. The wing was supporting two Army divisions, two ARVN divisions (splitting the helo load with Army helicopters), and the Korean Marine Brigade, in addition to the two Marine divisions.[17] It also flew out-of-country missions. Air-ground team performance reached a new high.

Several techniques that had been in use for several years were further improved during General Thrash's period of command. One of the most interesting was the insertion and extraction of reconnaissance teams. By their very nature, these teams operated well in advance of friendly lines and in enemy controlled territory. Most of the terrain there was high and forested, and there were few landing zones that permitted helos to land. Teams frequently used long ropes and rappelled in.

Getting out was something else. If it was an emergency situation due to enemy contact, it was not feasible to use a one-man hoist. So flexible ladders were employed. These were as long as 120 feet, and 6-feet wide. They were dropped from the rear ramp of a CH-46, and the pilot would hover at a height so that 20 or 30 feet would lie on the ground. The recon team would hook-on individually to the ladder and the pilot would then execute a vertical climb-out. The team would ride back to base hanging on the end of the ladder, 80 to 100 feet below the chopper and 1,500 to 2,000 feet or more above the ground.

During the extraction, a TAC(A) in an OV-10A would coordinate the air effort. Helo gunships would be directed to provide close in fires to protect the reconnaissance team on the ground. A-4s and F-4s were avail-

[17] The VNAF had two helicopter squadrons, but these were not enough for the ARVN's needs. The Army and ARVN received jet support from Marine, Air Force, Navy, and VNAF aircraft. The same general system of air support was used by all Services. The language barrier was overcome by the fact that many Vietnamese and Koreans understood English.



able with larger ordnance if more authoritative action was required.

As soon as the CH-46 pilot cleared the pick-up zone, he would turn away from a planned artillery-landing zone line and call in artillery fire to the zone he had just left. This technique became well known to the enemy, so they did not always come too close. If they did not close, the Cobra gunships would work them over while the actual extraction was in process.

Another operation that was continually improved upon as the war progressed was the Sparrow Hawk or Kingfisher, or, as it later became known, the Pacifier. In any case, the basic idea was the same: find the enemy and preempt his move. A package of aircraft was married up to a rifle platoon: CH-46s to provide troop lift, gunships for close-in support, an OV-10A for visual reconnaissance, and a UH-1E for observation and command and control. The OV-10A and gunships would scout out the target area and attempt to find the enemy, and then the CH-46s would insert the reaction force to cordon off the area and fix the enemy. If heavier air support was needed, the command and control helo could request a scramble. This technique proved to be very profitable, and it was often used to seek out the enemy in areas which fired at Marine aircraft, particularly helicopters. Prompt retaliatory action was one of the best measures to reduce this enemy harassment.

Phase Down

The first Marine aviation unit to come into Vietnam after "Shufly" was a LAAM Battalion. The first aviation unit to redeploy without replacement was also a LAAM Battalion. The 2d LAAM Battalion departed in October 1968 for Twentynine Palms, California. The 1st LAAM Battalion followed in August 1969. Even though they had never fired a missile at an enemy aircraft, they had served their purpose.

On 8 June 1969, the President announced his intention to withdraw 25,000 U. S. Servicemen from Vietnam. This increment became known as Keystone Eagle. One HMM departed from the 1stMAW for Futema, Okinawa, and one VMEA departed for Iwakuni, Japan. The 1st LAAM Battalion was part of this increment.

You're a "Recon" Marine and you and your team have made your reconnaissance in enemy-controlled territory. It's time to go home and a hovering Sea Knight has dropped its 120-foot sky-hook, and you and your buddies climb on and hang on for the ride back to the base. You don't have a worry in the world; you don't know who the pilot of the helicopter is, and you couldn't care less. He's a Marine and getting you back safely is now his problem.

Three months later, on 17 September, another incremental withdrawal was announced, this time 40,500 men from all of the Services—nickname, Keystone Cardinal. The 3dMarDiv was the major unit to leave Vietnam in this increment, and it went to Okinawa. This division plus the 1stMAW (Rear) with headquarters at Iwakuni constituted I MAF. It is to be noted that the 1stMAW (Rear) was not associated organizationally in any way with the 1st MAW in Vietnam. It was simply a temporary title conferred on those aviation units outside of Vietnam that were deployed in WestPac as a component of the Seventh Fleet.

MAG-36 was the largest aviation unit to accompany the division. It deployed to Futema and became the parent group for all Marine helicopter squadrons in 1st MAW (Rear). One HMH, one HMM, and one VMO went to Futema as part of MAG-36. Another HMM returned to Santa Ana, California, to become part of the 3d MAW. One VMA(AW) with 12 A-6 aircraft deployed to Iwakuni and was attached to MAG-15 located there. These moves were all completed by Christmas 1969.

The President announced, on 16 December 1969, his intention to withdraw another 50,000 men. This increment was called Keystone Bluejay. MAG-12 from Chu Lai was the major Marine air unit to leave in this increment. It went to Iwakuni and joined the 1st MAW (Rear). One VMA accompanied it. Another VMA and one VMFA redeployed to El Toro, California, home station of the 3dMAW. One HMH also went to the 3d MAW. It was then stationed at Santa Ana. Keystone Bluejay ended on 15 April.

Before completing Keystone Bluejay, III MAF underwent a change in organization. Lieutenant General Herman Nickerson, Jr., turned over command, on 9 March 1970, to Lieutenant General Keith B. McCutcheon. At the same time General Nickerson was relieved as the senior U. S. Commander in ICTZ by Lieutenant General Melvin Zais, U. S. Army, Commanding General of XXIV Corps. After nearly five years, III MAF relinquished its position as the senior U. S. command in the area. The XXIV Corps headquarters took possession of Camp Horn, on Tien Sha Peninsula across from the city of Da Nang, and III MAF established a new command post at Camp Haskins on Red Beach, very close to where the 3d Battalion, 9th Marines, had come ashore on 8 March five years earlier. Camp Haskins was a Seabee cantonment, where the 32nd Naval Construction Regiment was headquartered.

On 20 April 1970, the President announced the largest withdrawal yet, with 150,000 to leave by 1 May 1971. On 3 June it was announced that 50,000 of these would be out by 15 October 1970. Keystone Robin was the nickname for this undertaking.

Another MAG was included in this increment. MAG-

Marine Corps Deployable Squadrons

		Number of Sqdns End FY		Model Acft in Sqdn End FY	
Type of Marine Squadron	*Abbrev*	*1965*	*1970*	*1965*	*1970*
All-Weather Fighter	VMF (AW)	8	—	F-8	—
Fighter Attack	VMFA	7	13*	F-4B	F-4B F-4J
Light Attack	VMA	10	7*	A-4C/E	A-4E/F
All-Weather Attack	VMA (AW)	2	6	A-6A	A-6A
Composite Reconnaissance	VMCJ	3	3	RF-8A EF-10B	RF-4B EA-6A
Refueler Transport	VMGR	3	3	KC-130	KC-130
Observation	VMO	3	3	O-1 UH-1E	OV-10A AH-1G
Light Helo Transport	HML	0	3		UH-1E
Medium Helo Transport	HMM	15	12	13 UH-34 2 CH-46	CH-46
Heavy Helo Transport	HMH	2	6	CH-37	CH-53
Total		53	56		

*One Squadron given up in order to retain three HMLs in Force Structure. VMFA-513 redesignated VMA-513 and placed in cadre status 30 Jun 1970; will become a Harrier squadron in last half FY71.

13, along with one VMFA and one VMA(AW), deployed to El Toro. Another VMFA deployed to MCAS Kaneohe, Hawaii, and joined MAG-24 stationed there. These three jet squadrons flew across the Pacific refueling from KC-130s and following the general route, Cubi Point in the Philippines, Guam, Wake, Midway, Kaneohe, and finally El Toro. Jet squadrons in previous increments had followed the same route.

The departure of MAG-13 marked the end of an era at Chu Lai. The last Marine jet flew off the concrete west runway on 11 September and headed east. The air base at Chu Lai was taken over by the U. S. Army's Americal Division.

VMCJ-1 also departed Vietnam and returned to Iwakuni, where it had been stationed prior to its arrival in Vietnam in 1965.

The other major aviation units included in this package were one HMM, which departed for Santa Ana, and Marine Wing Support Group 17, which was relocated at Iwakuni.

The deployments of units in these four increments reduced the 1stMAW from a wing of six aircraft groups and three supporting groups[18] to a wing of two aircraft groups and two supporting groups.[19] The number of aircraft squadrons was now 10, compared to a peak of 26 in 1968 and 1969.

[18]MAGs 11, 12, 13, 16, 36, ProvMAG-39; Marine Wing Headquarters Group 1; Marine Wing Service Group 17, Marine Air Control Group 18.
[19]MAGs 11 and 16; Marine Wing Headquarters Group 1 and Marine Air Control Group 18.

Shortly after the initiation of Keystone Robin, on 1 July 1970, Major General Thrash stepped down as CG of 1stMAW, and Major General Alan J. Armstrong took command. It was to be his lot to continue the reduction of Marine aviation units in Vietnam and probably take the 1stMAW headquarters out of that country.

Retrospect

Marine Corps aviation was in Vietnam in strength for over five years. It was ready when the order was issued to go. The years since Korea had been used to good advantage. New techniques and new equipments were operational. The overall performance from 1965 to 1970 was outstanding.

It was a dynamic period. The Marines deployed to Vietnam in 1965 with UH-34, UH-1, and CH-37 helicopters; A-4, F-8, F-4B, RF-8, and EF-10B jets; and O-1, C-117, and KC-130 propeller aircraft. They added the CH-46, CH-53, AH-1G, A-6, F-9, TA-4F, F-4J, RF-4B, EA-6A, OV-10A, US-2B, and C-1A. From 1966 on they stopped using the UH-34, CH-47, F-8, F-9, RF-8, EF-10B, and O-1. Only the UH-1, A-4, F-4B, C-117, and KC-130 participated in operations from beginning to end.

Dynamism is one characteristic of a strong and viable air arm. Technical advances continually present the planners with decision points. Marine and Navy planners had done well in the fifties, and that is one reason

why so many new aircraft were under development in time to enter the Vietnam War. It is also interesting to note that A-1, A-4, A-7, F-4, F-8, and OV-10A aircraft in use by other Services, U. S. and foreign, were the products of the naval aeronautical organization, as were such air weapons as Sidewinder, Sparrow, Shrike, Snakeye, Bullpup, and Walleye.

The Marine Corps takes pride in the fact that it has always put a great deal of emphasis on planning and looking ahead. Before World War II, it pioneered the fundamentals of close air support, and during that war it perfected the techniques that are still basic. After that war it entered into the evaluation and application of helicopters to ground combat. When the Korean War began, it was ready to test the concept in a combat environment. Following Korea, it accelerated the development of its concept of a short airfield for tactical support. All three of these major contributions to the state-of-the-art in tactical air warfare were used in Vietnam, not just by the Marines, but by the other Services too. There were other Marine Corps contributions which included the MTDS, TPQ-10, RABFAC beacon, and tactical electronic warfare.

Even while the war in Vietnam was being fought, the Marines were still looking ahead to the future. As was discussed, earlier, the lack of suitable air bases in Vietnam was one major constraint on the buildup of tactical airpower. There are still only two airfields capable of handling jets in ICTZ, and there is still not one south of Saigon. But there are airfields capable of taking light aircraft, KC-130, and Caribou transports and helicopters. And many of these fields could take the Harrier.

The Harrier is a jet vertical take-off and landing strike aircraft developed in England with the help of U. S. dollars, and it is operational now in the Royal Air Force. The Marine Corps saw in the Harrier an aircraft of great potential and initiated procurement action in the FY69 budget for twelve of them. It gave up some F-4 aircraft to get them, and they are coming aboard now. By the end of FY71, the Marines will have their first squadron.

The Harrier will not only permit operations from more sites; it will improve response time in close air support by reducing the time taken to request support (there will be fewer centers and echelons of command to go through), and it can be staged closer to the action, thus cutting flight time. The fact that it can operate from more sites should reduce its vulnerability on the ground, and because it can land vertically there should be a reduction in its accident rate (more landing areas available in an emergency)

The year 1965 was one of buildup. Bases had to be obtained and developed, supply pipelines filled, and initial operating difficulties overcome. The sortie rate for jet aircraft gradually climbed to over 1.0, which was the magic figure used by planners to compute sorties. That means one sortie per day per aircraft assigned. In 1966, the rate went well beyond that, and for the entire period the Marines averaged more than 1.0. When the occasion demanded it, they surged to 1.3, 1.4, or even 1.5 for days at a time. The 1st Wing was a consumer-oriented tactical air support command. If the customer had the demand, the wing would supply the sorties.

Twelve of the Corps' total of 27 fighter-attack squadrons were deployed most of the time and 10 or 11 of these were in Vietnam. Fourteen of its 25 helicopter squadrons were deployed—well over fifty per cent. The same airpower was diminished by the following losses in aircraft in all of Southeast Asia in the period starting 25 August 1962 and ending 10 October 1970.

USMC Aircraft Losses in Southeast Asia

Helicopter combat losses	252
Fixed wing combat losses	173
Helicopter operational losses	172
Fixed wing operational losses	81

Marine Corps aviation surged for over five years in order to sustain the maximum possible strength overseas. The units overseas in turn exceeded all planning factors in terms of output and productivity, under less than ideal conditions.

Marine Corps aviation will leave Vietnam with a sense of accomplishment. It performed its mission for nearly six years and carried out every function in the tactical air book. The innovations and developments it had worked on over the years were proven in combat. The new environment created new challenges for men in Marine aviation, and these were met head-on and solved. The war was the longest, and in many ways the most difficult, one in which Marines have had to participate. The restraints and constraints placed upon the use of air power, and the demanding management reports of all aspects of aviation required by higher authority, imposed additional requirements on staffs with no increase in resources, in most cases, to perform the tasks. In spite of these difficulties, Marine aviation performed in an outstanding manner. An analysis of sorties flown compared to assets on hand will prove that no one outflew the United States Marines.

Keith B. McCutcheon

AMPHIBIOUS DOCTRINE in VIETNAM

What Marines Should Talk to Each Other About

By LtCol P. L. Hilgartner

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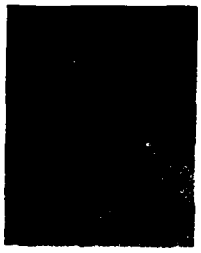
IT'S not hard to provoke a discussion of the pros and cons of our conduct of the war in Vietnam. Most professional Marines have strong feelings on the subject. However, since the bulk of our manpower (i.e. two divisions and one air wing) are committed to a land campaign just south of the DMZ, professional discussions related to the amphibious side of the war are less frequent. Many Marine officers of the 1960s appear totally unfamiliar not only with the doctrine, but also with the execution of amphibious operations. On the other hand, there are those who are familiar with our amphibious operations in Vietnam, but because of their deep concern with the land campaign, have expressed some exasperation over the conduct of these amphibious operations.

Some of this criticism, I believe, stems from a lack of understanding of our amphibious doctrine coupled with impatience over the prosecution of the war.

In any event, amphibious warfare is a matter which I believe Marines should talk to each other about.

Most Marines know that a basic rulebook for the conduct of amphibious warfare is a publication known as the *Doctrine for Amphibious Operations.* This publication has been agreed to by all of the services, including the Air Force in recent months. Marines know this publication as LFM-01; the Navy calls it NWP-22B. Since many discussions on amphibious operations involve Navy officers, Marines should be conversant with the Navy usage. This article refers to the Navy title.

NWP-22B contains the doctrine covering the planning for and conduct of all Navy/Marine Corps, joint, and combined amphibious operations. When first published it contained doctrine which was particularly well suited for conducting



LtCol Hilgartner served in the N-3 Division CINCPACFLT Staff (1963-66) performing duties related to Amphibious forces and doctrine. A 1951 Naval Academy graduate, he served as CO 1stBn 5th Marines for 10½ months (1966-67) in RVN prior to his current assignment in the Plans and Programs Branch, G-3, HQMC.

amphibious operations in a *hostile* enemy environment, such as existed during the island campaigns conducted by the Marine Corps in WWII. The war in Korea did not highlight any unique situations which challenged amphibious doctrine. The major amphibious operations conducted there were executed against conventional enemy forces in control of the land mass in the area of such operations.

There is a significant parallel to be drawn here. With respect to South Vietnam, the situation which confronted our amphibious forces in the spring of 1965 was not exactly the same. In fact it was unique. The enemy was not in full control of the country, but did have control over some land areas. It could be said then, that while not fully hostile with respect to amphibious forces, South Vietnam was certainly a "semi-hostile" place.

Another unique factor related to our amphibious effort in South Vietnam is that prior to the commencement of amphibious operations in 1965, a U.S. ground forces commander, COMUSMACV, was established ashore in South Vietnam. He soon made clear his interest in the conduct of naval amphibious operations in South Vietnam.

This latter development was a matter of great concern to Navy and Marine Pacific Fleet and Force commanders, and after much discussion back and forth, an agreement by the Commander in Chief, U.S. Pacific Fleet (CINCPACFLT) with COMUSMACV was reached in November of 1966. This document was officially entitled, *Agreement for U.S. Naval Support Operations in RVN* and will be addressed in part herein.

The "Agreement" has had a significant impact on the amphibious doctrine contained in NWP-22B. The matter has been of such concern to Pacific Fleet commanders that several study groups have been convened on the subject. The latest study relating to the matter of the conduct of amphibious operations in Vietnam was completed by CINCPACFLT in February 1968. This study examined methods of employment of amphibious forces in Vietnam, as well as command relationships and control procedures. A detailed exposé is not feasible for security reasons.

Since March 1965, more than 50 amphibious operations have been conducted in South Vietnam. Most of these have been conducted by a Seventh Fleet amphibious force known as the Amphibious Ready Group/Special Landing Force (ARG/SLF). The ARG/SLF was created in 1960 as a balanced, versatile contingency force to meet requirements throughout the Pacific Command area of responsibility. While the mission stands today, the predominant effort has been directed towards the current contingency in South Vietnam.

When planning for amphibious operations in Vietnam was first initiated, it was not wholly obvious to the planners that the amphibious forces must consider the desires of a friendly government and the military commander ashore. No one supposed that the absolute authority of the Amphibious Task Force commander within the boundary of the amphibious objective area (AOA) would be questioned.

However, this authority *was* questioned, and it was pointed out that the land space within the defined AOA was occupied to a large extent by innocent civilians loyal to the government of Vietnam and there were certain rules to ensure their safety. Additionally, the authority of the amphibious task force commander within the airspace of the amphibious objective area was questioned. It was pointed out that a friendly U.S. commander ashore was conducting air operations, the Vietnamese air force was conducting air operations, and certain civilian air transportation agencies were continuing commercial air operations along the coast line of South Vietnam.

This situation became even more complex to the planners when the question of security was posed. Who should be told that an amphibious operation in a selected area of South Vietnam was forthcoming? As a point it was observed that security leaks could occur if civilian aircraft agencies were directed to deviate from their commercial route for a period of time. Soon it would become obvious to the enemy that when such a restriction was imposed, an amphibious operation would be forthcoming in the area where the commercial air route was established. Other related security problems can be visualized.

Additionally, there was the matter of naval support for the conduct of amphibious operations. The Commander in Chief U.S. Pacific Fleet (CINCPACFLT) provides naval support (including amphibious support) as requested by the in-country unified commander, COMUSMACV. This is done in accordance with JCS Pub 2 and as directed by the overall Pacific unified commander, CINCPAC. As a result of the CINCPACFLT/COMUSMACV Agreement and over three years of experience, many of the steps in planning and conducting amphibious operations in South Vietnam have become routine and

mechanical. However, the planning sequence contained in NWP-22B is followed.

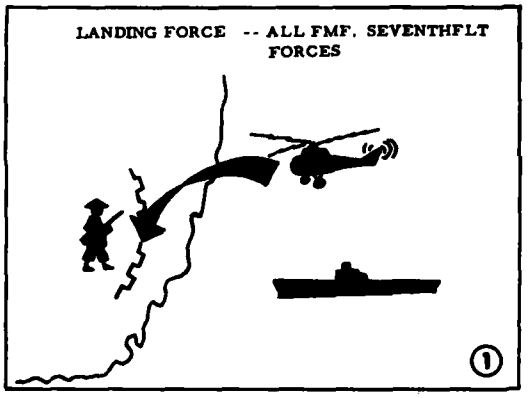
The feasibility of conducting amphibious operations in South Vietnam in support of COMUSMACV has been established. The Fleet Commander has delegated the responsibility for the amphibious operation to the Commander, U.S. Seventh Fleet, (COMSEVENTHFLT). The "initiating directive" utilized today is in many respects a "canned" one, but it still provides for the establishment of the amphibious task force.

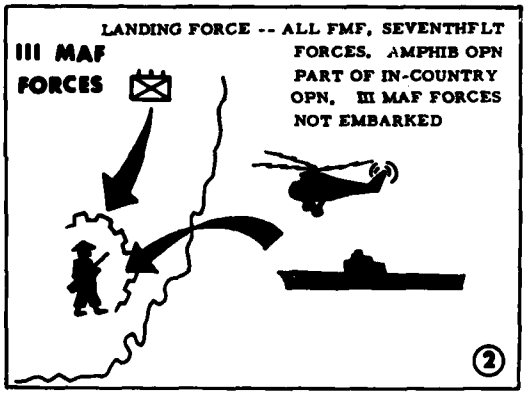
The initiating directive, among other things, still assigns the necessary forces to accomplish the mission specified by COMUSMACV, defines the amphibious objective area in terms of sea, land, and air space, and prescribes the command authority within the amphibious objective area. The CINCPACFLT/COMUSMACV Agreement solves most of the command relationships and coordination questions. However, those remaining which relate to the size of friendly forces and nature of their activities and their direct or indirect participation in the amphibious operation, are resolved through established coordinating procedures.

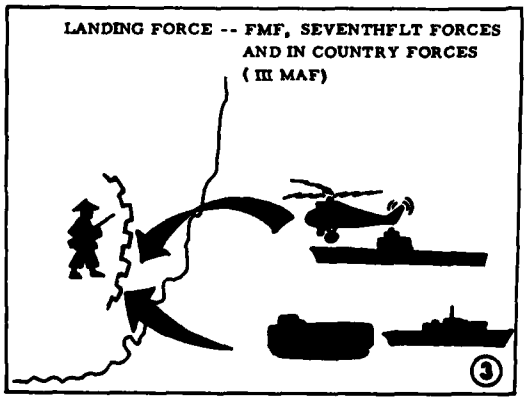
From the standpoint of landing forces, four types of amphibious operations have evolved from the amphibious experience thus far in Vietnam.

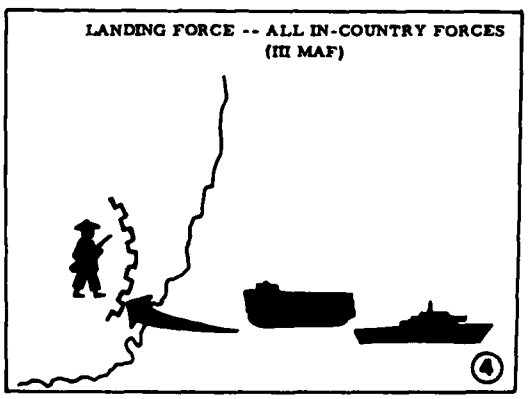
1. An amphibious operation in which the landing force is composed of all FMF, SEVENTHFLT forces. A principal example of the SEVENTHFLT Marine units has been the Special Landing Force (SLF), which is part of the Ninth Marine Amphibious Brigade (9th MAB) based in Okinawa (see figure 1). Operation DECKHOUSE ONE conducted in June 1966, is an example of this type. BEAU CHARGER, conducted in May 1967 is another.

2. An amphibious operation which is a part of an in-country operation (see figure 2). In some operations conducted by the III MAF, forces were not embarked, and the entire amphibious operation was executed by designated FMF, SEVENTHFLT Marine forces. In these situations, it is not unusual for the amphibious operation to be terminated and for operational control of the landing force to be chopped to the in-country commander until the operation is over. Upon conclusion of these in-country operations, it is normal for the amphibious operation to be resumed for the purpose of withdrawing the landing force. As an example, the SLF reported to OPCON of CG, III MAF under these conditions during Operation BEAVER TRACK in July 1967,









and returned to OPCON of the Commander Amphibious Task Force (CATF) when the support requirement ceased. This type is probably the most common.

3. An amphibious operation in which both in-country forces (i.e., III MAF) and FMF, SEVENTHFLT forces are embarked in amphibious task force shipping (see figure 3). Normally, the landing forces come from a single Marine command and are organized from a command standpoint to execute amphibious operations. Again the situation in the Western Pacific is unique, because there are FMF, SEVENTHFLT Marine forces and III Marine Amphibious Forces, who upon occasion have been combined to form the landing force. One example occurred in Operation DOUBLE EAGLE in January-February 1966.

4. An amphibious operation in which the landing force is composed entirely of in-country (i.e., III MAF) forces (see figure 4). Operation BLUE MARLIN, which took place in November 1965, is an example of this type of operation. With the creation of a second ARG/SLF in April 1967 the requirement for this type operation has been materially reduced.

That there are four types of amphibious operations which can be conducted in a semi-hostile environment such as South Vietnam may be considered academic to some, but knowledge of same is important to an appreciation of the impact this war and the CINCPACFLT/COMUSMACV Agreement have had on naval amphibious doctrine. In conducting these amphibious operations some exceptions or deviations are applied to the amphibious doctrine contained in NWP-22B. For the most part the deviations have been related to the command and control authority of the CATF within the objective area.

Amphibious objective areas in conventional WWII type amphibious operations tended to be described in terms of a geometric cylinder giving wide latitude in terms of land, sea, and airspace. However, as has been stated, South Vietnam has presented a different situation. Friendly forces and civilians are almost always in the vicinity of the planned assault objective(s). Notification to civilian aircraft agencies that a specified airspace along their normal flight route will be restricted to aircraft on certain days might jeopardize the security of the operation. The AOA can be scribed so that nearby friendly ground forces are excluded. A tunnel through the air space of sufficient cube to permit uninterrupted flight by other friendly aircraft is often included.

In our amphibious exercises at Camp Pendleton it has been necessary to do much the same thing of providing airspace for unrestricted travel by commercial aircraft. The difference is this:

At Camp Pendleton this procedure has been "written out" of the problem as an exercise limitation. In South Vietnam, it is one of the CATF's command and control problems. In my opinion it constitutes an inroad upon the amphibious doctrine in NWP-22B and the authority of the CATF in the AOA.

Another illustration of the impact of the unique situation the war in Vietnam has had on naval amphibious doctrine is this:

The doctrine stipulates that the amphibious task force commander "will exercise control, as prescribed in the initiating directive, over forces not a part of the amphibious task force when such forces are operating within the amphibious objective area. . . ." However, insofar as the situation in South Vietnam pertains, it has been recognized that the CATF does not have control over South Vietnamese forces who might happen to be inside the amphibious objective area. Therefore, close coordination between free world military forces and Pacific Fleet naval forces has become paramount.

The doctrine provides for a Commander Landing Force (CLF), and for his authority and responsibility in the amphibious operation. In addressing the matter of who commands the landing force, it has been determined that the commander having the *preponderance of landing force troops* will embark and be designated the CLF. If, for example, this officer happens to be the commander of the III MAF troops, then operational control of the III MAF unit participating in the amphibious operation will pass to the CATF. This operational control will be retained by the CATF until the landing force is firmly established ashore and the amphibious operation is terminated.

With all these facts before us, it is apparent that the events which have transpired in South Vietnam during the past three years have had an impact on the amphibious doctrine contained in NWP-22B/LFM-01.

There are restrictions on the extent of the CATF's command and control of the close air and naval gunfire support which he provides the Commander Landing Force (CLF) within the amphibious objective area.

COMUSMACV has been accorded extensive control and has been allowed to prescribe virtually every important aspect of the employment of amphibious forces, from specifying the mission to delineating the characteristics of the amphibious objective area.

But even in the face of all of this, the doctrine for amphibious operations as contained in NWP-22B/LFM-01 has proven adequate. But the situation in South Vietnam has produced some new facets affecting the doctrine which are important to Marines. The "old grey mare may not be what she used to be"; professional Marines need to stay on top of matters relating to our "bread and butter." USMC

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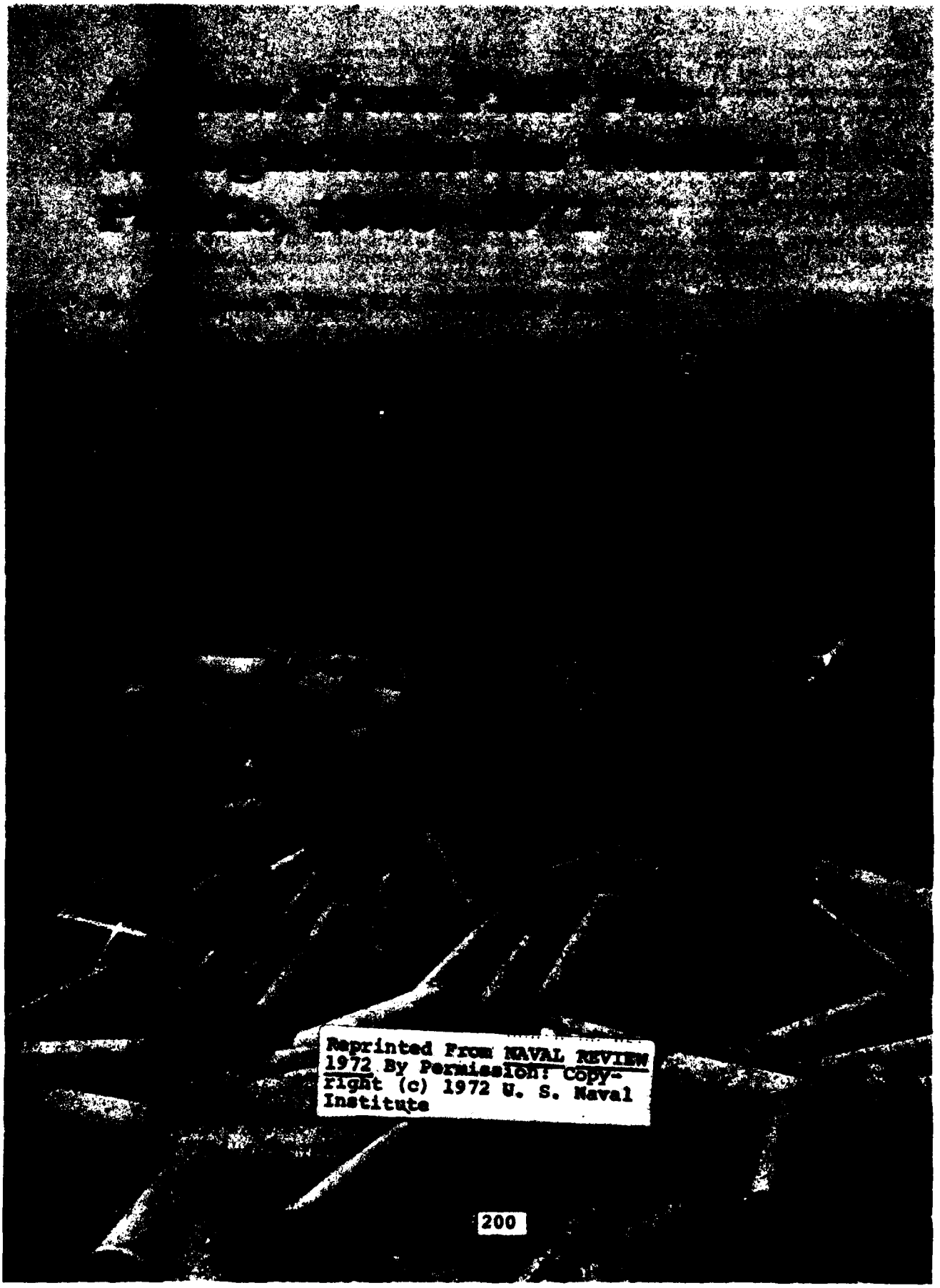

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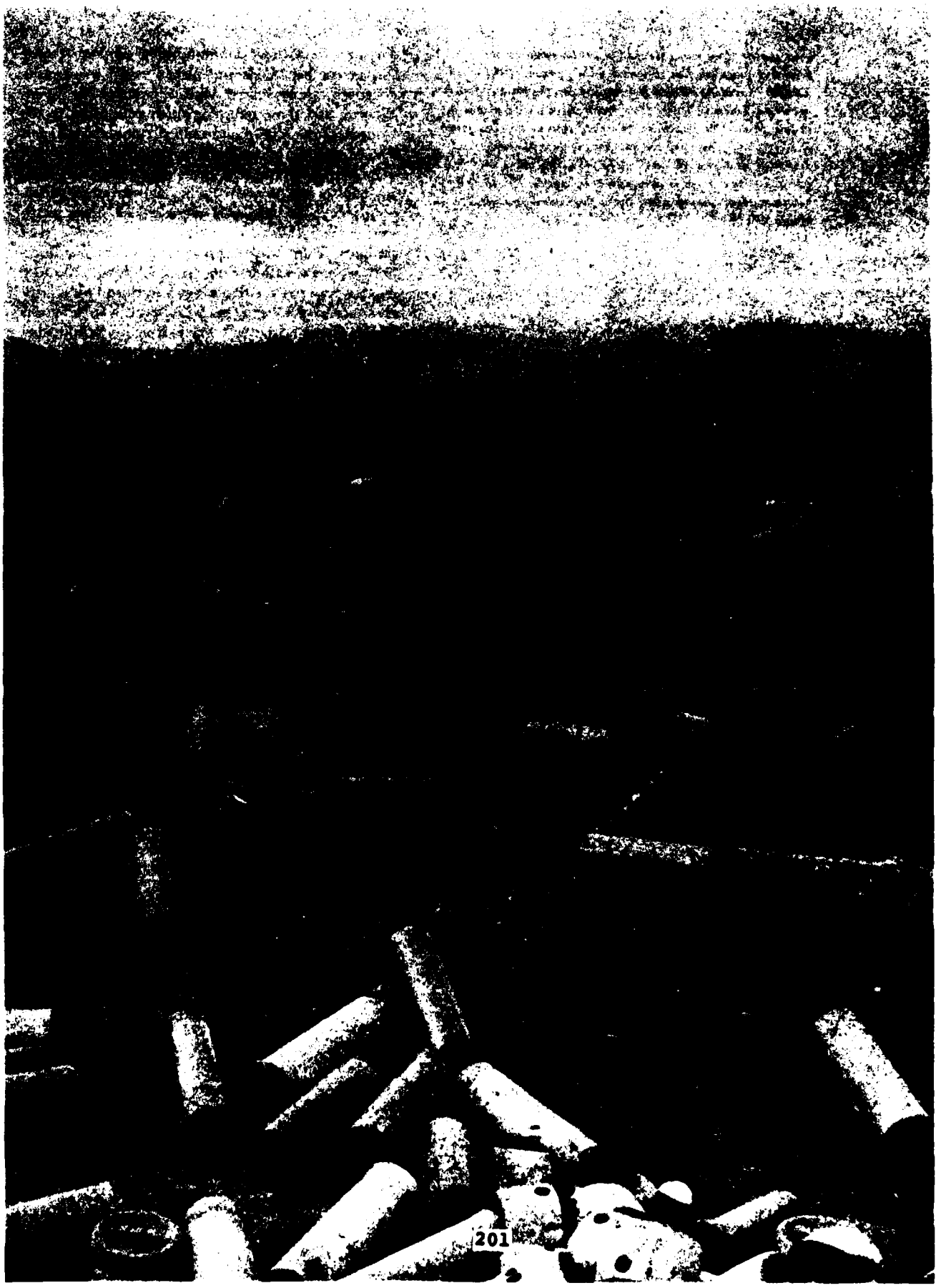
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How much? How much would the artillerymen on the preceding pages need as they and other gunners of the Twelfth Marines provided fire support for the First Marines near Con Thien in 1967? How much chow would it take to sustain them? How much water would they need? How much of everything? These are the questions logistic planners must anticipate and answer, and, to the most difficult question—How much is enough?—their answer has to be "Enough to get the job done; not a drop more and not a pound less."

The Marines' traditional gripe about being "lonely, tired, and far from home" comes close to describing the U. S. serviceman's predicament in and resulting from South Vietnam. American military men, at all echelons, know the loneliness of fighting an "unplanned, unwanted, undeclared, and unpopular" war.[1] They are bone-tired from the unparalleled effort of making war while, at the same time, building and providing for other nations in the Western Pacific. They stand flat-footed in frustration as they defend themselves not only against an enemy they were prohibited from defeating but also the hostile element of their own society. To add further to their frustration, the U. S. involvement in South Vietnam has been a defensive war characterized by its logistic, rather than operational nature. There have been tactical innovations, to be sure, but the grand scope of dramatic operations and splendid victories has been missing. So much so in fact that perhaps the previously unmatched logistic support provided to our forces and allies will be the war's only significant military accomplishment. And all this—massive construction projects, vast amounts of materials and subsistence being provided, sporadic fire-fights, and hundreds of thousands of officers and men being moved about on a time-table—has been taking place half a world away from the continental United States, the source of the means and the troops.

At the very moment of our deepest involvement, in 1968 and 1969, when large numbers of U. S. and Free World forces were involved and the largest number of casualties were being inflicted on both sides, America commenced the planning and later the execution of a withdrawal without diminishing the support of those still in combat. Ships and planes passed in opposite directions, those loaded with equipment for South Vietnam and those returning other equipment to the United States. Service and unified command planners devised systems of review, screening, and "want-lists" to prevent the return of items still needed in South Vietnam or the Western Pacific, and to cancel, delay, or divert those previously requisitioned items which were no longer needed or were needed only in lesser amounts. Thus, while supporting a war in one direction, we were withdrawing, re-establishing, refurbishing, inactivating, and returning material and equipment to stores in another. This was especially true of the Marine Corps in the early redeployments. While other Services generally withdrew personnel spaces and transferred equipment within South Vietnam or to stock elsewhere, the Marine Corps withdrew units, with their own organic equipment, and used its operating stocks for reconstitution of "mount-out" and "mount-out augmentation" for the withdrawn units in an unparalleled manner and by a sophisticated computer system designed to avoid interference with the units still in combat.

The logistic planning and guidance developed and the procedures necessary to avoid redundancy, while supporting both those forces in the field and those being sent either to other Western Pacific bases or back to the United States, form the theme of this discussion. It is not intended to be a technical recitation of facts but rather a view of what was hoped for and what really happened in an operation that, though still underway for others, is over for the Marine Corps.

Background, Before Entry (1960–1965)

The logistic support organization and systems outlined in the plans drawn up by the Pacific Command (PaCom) for the possible support of U. S. forces in Southeast Asia reflected, for the most part, the existing organizations and systems of the individual Services and components. Since Commander-in-Chief, Pacific (CinCPac), at this time was essentially an operational command, most early CinCPac plans either ignored or provided inadequately for logistic support. This was especially true in regard to the expected duration of combat operations, which had great impact upon both the planning for base development and the amount of logistic support anticipated in the objective area. Nor did they, or individual Service plans, identify needs for essential major items of equipment (or the time required to obtain such equipment) with any accuracy. They did not recognize the deficiencies in South Vietnam's ports or appreciate the magnitude of the construction effort that would be necessary either in the

[1] C. J. Merdinger, "Civil Engineers, Seabees, and Bases in Vietnam," U. S. Naval Institute *Proceedings*, May 1970, pp. 254–275.

ports or in the country at large. In fact, the contingency plans, which called for the rapid deployment of U. S. forces, with emphasis on control of key areas by combat forces, stipulated a delay in the introduction of the logistic elements. Thus, the concept precluded both the early development of logistic bases and the early entry of support elements. Certainly the planning did not anticipate a war of attrition lasting more than seven years, nor a withdrawal in the middle of hostilities.

Logistic support for the Marine Corps forces scheduled for potential employment in Southeast Asia was to be furnished by logistic elements organic to the III Marine Expeditionary Force (later renamed Marine Amphibious Force in deference to the government of South Vietnam). Logistical plans for the Marines were designed for the support of amphibious assault operations with only limited landing force involvement ashore. No provision, therefore, was made for sustained follow-on support from off-shore bases once the forces had been deployed from their assigned Western Pacific locations.

Background After Entry (1965–1969)

During most of 1965, logistic support for the Marines in Vietnam who, by year's end numbered 38,000, mainly in the 3d Marine Division and 1st Marine Air Wing, was furnished by a Force Logistic Support Group in Da Nang, which operated as a subordinate of the 3d Force Service Regiment on Okinawa. In March 1966, with the arrival of the 1st Marine Division and additional 1st Marine Air Wing units, this logistic organization required expansion and realignment. Thus, on 15 March 1966, a Force Logistic Command was established at Da Nang as a provisional organization under the command of the Commanding General, Fleet Marine Force, Pacific (CG FMFPac), and under the operational control of the Commanding General, III Marine Amphibious Force (CG III MAF). Not only was the organization new to the Marines (although a Service command at expeditionary corps level had been in the planning documents for years), but no other Service had anything quite like it, either.

The Commanding General, Force Logistic Command (CG FLC), provided Force Logistic Support Groups (FLSGs) to the 1st and 3d Marine Divisions and Force Logistic Support Units (FLSUs) to Marine air and ground elements as required. Both Groups and Units were task-organized to provide the supply and maintenance essential to the supported activity. This unique and flexible development later became one of the key elements in the Marine Corps' ability simultaneously to support a war and plan and execute a massive redeployment. The value of CG FMFPac's close proximity to the Commander-in-Chief, Pacific Fleet (CinCPacFlt), combined with his direct access to CG FLC and CG III MAF on logistic matters, cannot be over-emphasized. The Commanding General, Force Logistic Command, not only tied in directly with his operational commander but also fully conversant with logistic planning being done at FMFPac, held the key to a successful redeployment.[2]

The foregoing does not mean, however, that logistic planning and operations for the support of the forces in South Vietnam and later the planning for redeployment by CinCPac and Commander, U. S. Military Assistance Command, Vietnam (ComUSMACV), were not pertinent. The Joint Logistic Council and Joint Transportation Board of CinCPac and the J-4 of ComUSMACV were deeply and effectively involved. In fact, the redeployment movements of all Services were directed by CinCPac regardless of unit or carrier, in accordance with a detailed joint movement plan prepared by CinCPac based upon information provided by each PaCom component and coordinated with each Service and the Joint Chiefs of Staff (JCS). The Commandant of the Marine Corps provided support and guidance, not only via the Service channel, but also as a participant and a member of the Joint Chiefs of Staff.

Logistic Operations in Vietnam (1965–1970)

Essentially, both during and before redeployment, there were three areas of logistic support for Marines that daily involved the greater part of the logistic consideration and effort. These were transportation, maintenance, and supply, including munitions.

Transportation

Transportation was and is the dominant factor, either in support of forces in-country or in redeployment planning. Lack of sound transportation planning can ruin the best overall plan; and conversely, good transportation planning can usually bail out the worst plan. During most of the war, both surface and air transport for the Marines in South Vietnam was controlled by a joint agency within III MAF Headquarters under the staff cognizance of the G-4. This changed on 1 March 1970 when the operational control of I Corps area was passed to the U. S. Army's XXIV Corps following the redeployment of the preponderance of the Marines from the I Corps area.

[2] While these events were taking place in the Marine Corps, similar events were occurring within the Navy. An ad hoc organization to operate the port of Da Nang was formalized as Naval Support Activity, Da Nang. This organization, of a type new to the Navy, grew to considerable size. Not only did NSA Da Nang operate the port, but it created many lesser ports up and down the I Corps coast, and up the I Corps rivers, for the purpose of supplying Marine needs. Its scores of landing craft, as well as the many LSTs under its direction, were essential to the success of Marine Corps operations in I Corps Tactical Zone.

During the period 1965–1969, despite the great advances of air transportation and its maximum utilization, ocean surface transportation (mainly old LSTs and large landing craft), under the control of Naval Support Activity, Da Nang,[3] between Da Nang and the Northern I Corps area, as well as between Da Nang and Chu Lai to the south, was dominant. This extensive employment of landing craft and ships as coastal freighters, with the attendant development of supporting terminals at Cua Viet, Tan My, Hue, and Chu Lai in order to prosecute the war, later proved invaluable during redeployment of the 3d Marine Division because many of the heavy combat support elements of that organization could be directly embarked aboard amphibious assault ships by helicopters or landing craft along the northern coast of South Vietnam without further taxing the few piers and LST ramps in Da Nang. This fact also highlights the versatility of the assault ships compared to the freighters of the Military Sealift Command (MSC, formerly Military Sea Transport Service, or MSTS) or chartered merchant ships, neither of which possess organic landing craft, and neither of which can handle large movements of helicopter-borne personnel and equipment.

Road and rail transportation within South Vietnam, and especially in I Corps during the period 1965–1969, was hazardous. During the greater part of this period, the rail line between Da Nang and Hue was virtually inoperative due to enemy activity. When it was returned to a reasonably secure means of movement in mid-1969, it was employed primarily by the government of South Vietnam and was little used by III MAF logistic activities. In fact, the great efforts by the South Vietnamese to restore and maintain the rail line was motivated more by morale and prestige considerations than by a realistic need for transportation support. Road transportation, on the other hand, was vital in order to provide an alternative to air and ocean movement during the long periods of bad weather and to use effectively the many trucks and other vehicles of III MAF. Accordingly, extensive energy was expended to open, protect, and maintain the roads. Finally, about six months before the redeployment of the 3d Marine Division from the northern provinces of I Corps, the roads were virtually free from interference and convoys

[3] F. C. Collins, Jr., "Maritime Support of the Campaign in I Corps," U. S. Naval Institute *Proceedings*, May 1971, pp. 156–179. Also, K. P. Huff, "Building the Advanced Base at Da Nang," *Naval Review 1968*, pp. 88–113.

With the rail line between Da Nang and Hue inoperative due to enemy activity, the opening, maintaining, and protecting of some roads in I Corps became imperative. Three Ontos, such as the one in the foreground, were assigned to protect the 33-truck "rough Rider" convoy that moved from Da Nang to Hue in 1966.

rolled day and night. However, it was not until 1970, with the 3d Marine Division redeployed and the northern terminals at Cua Viet and Tan My being reduced or closed, that the tonnage moved by roads in I Corps finally approached the tonnage transported by landing craft.

Air, of course, provided the means to sustain many of the isolated fire support bases and countless limited operations, especially inland. The value and flexibility of the helicopter from both an operational and logistical viewpoint brought new possibilities to warfare. However, the less dramatic fixed-wing aircraft, the C-123s, C-130s, C-141s, and others, belonging to the Marines, the Air Force's Military Airlift Command (MAC), and the commercial charter carriers lifted vastly more cargo and many more men than the "choppers," not only in I Corps but also in all of Vietnam. To the logistic planner, the single most important aspect of this combined fixed-wing and helicopter air lift capability was its surge capacity. By using either the airplanes already in-country or those offshore in the Philippines, Okinawa, or Japan—or a mixture of both—the system could respond rapidly to crises and unprogrammed movements. This, too, was a great advantage at the time of redeployment.

Both ships and aircraft from outside Vietnam were provided to III MAF by CG FMFPac. This included the MAC-chartered aircraft to carry the men flowing from the West Coast of the United States to Okinawa and into South Vietnam and return, as well as the MSTS-chartered ships to move cargo from Okinawa to Vietnam. The Commanding General, Fleet Marine Force, Pacific, directed this vast transportation network from Hawaii. The close, on-the-scene control was accomplished by Deputy Commanding General, Fleet Marine Force, Pacific (Forward) (Dep CG FMFPac [Fwd]) at Okinawa and CG III MAF or CG FLC at Da Nang. Airlift personnel and cargo requirements were forwarded to Dep CG FMFPac (Fwd) on Okinawa (after 1969, Commanding General, Marine Corps Base, Camp Butler), who consolidated these requirements with additional needs from Okinawa and Japan. The combined requirements were then met from assets within the Pacific Command or, as in the case of the personnel rotation plan, were provided by CG FMFPac who obtained chartered commercial aircraft from Headquarters, United States Marine Corps, Washington, D.C., (HQMC) and the MAC. Ocean cargo was booked by the Force Logistic Command with the Naval Support Activity in Da Nang which in turn obtained the required shipping.

Amphibious assault ships completing their tour and returning to the United States were also used to the maximum extent possible, and this saved a large amount of money that would have otherwise been spent on costly commercial shipping. Once the Marine Corps redeployment began in 1969, the use of such ships raised the savings into many millions of dollars, and offered additionally the advantages of timely and flexible loading and unloading at other than crowded ports. The use of Tan My, South Vietnam; White Beach, Okinawa; and Del Mar, California, reduced the congestion at Da Nang, Naha, and San Diego. It also made unnecessary the long movement of some personnel and equipment by rail or highway to and from other ports of embarkation and debarkation.

Altogether, about 30% of all Marines and 90% of their equipment (by tonnage), were redeployed from Vietnam in amphibious ships. Nearly all the rest of the Marines were moved in commercial aircraft. Most aviation units, however, went in the amphibious ships, with the remainder going by flight ferry. Very little cargo went by air; that which didn't go in amphibious ships went in commercial ships.

Maintenance

The basic maintenance objective of the Marine Corps is to provide and maintain equipment in an operationally ready condition and to do so at the least possible cost in time and money. But the drain of maintenance upon the Marine Corps to support its operations in South Vietnam, i.e., the energy expended in devising, improving, discarding systems, took all the talent and ingenuity the Corps could muster. Starting from a far-too-limited base, involved in a war different in kind from that expected, and lacking equipment which, though requested, had not been authorized, it took only a short while in South Vietnam for the Marine Corps to realize that maintenance would be its biggest problem. By 1966, its maintenance back was already to the wall of capability.

Certainly the Marine Corps' experiences in South Vietnam and the examples of accomplishments and of changes that were made provided the bases for determining the Corps' strengths and weaknesses, and for making clear the lessons to be learned. In studying these lessons, however, there is the danger of assuming that what was done to support the Vietnamese conflict will be applicable to all future planning and should, therefore, be adopted as SOP. The buildup of forces and the tempo of action in South Vietnam were stringently controlled responses by the United States in a fundamentally defensive atmosphere. Nowhere was this more true than in the northernmost area of I Corps in which, although it fronted on North Vietnam, the paucity of our forces, compared to the enemy's forces and his ability to reinforce himself, precluded anything except general defensive operations. Fortunately, since the Free World forces dominated both the air and sea, there

Tank crews operating in the Da Nang area could drive over to Force Logistic Command Maintenance Battalion's ordnance maintenance company and, as this 26th Marine tanker is seen doing to his medium tank, give their vehicle a steam bath.

was no interruption of inter-theater lines of communications. Some attacks were made by demolition sappers (who came by water) against Navy and Marine logistic facilities at Tan My, Hue, and on the Cua Viet River, but these were infrequent. Attacks by fire on such facilities happened more often. But the total result of such attacks was not important. The overland lines of communication in South Vietnam, although not under complete control of the United States and its allies, were made usable at our discretion. Because of this situation, support for combat units was built up at a reasonable and orderly rate compared to that which would have been required had the enemy controlled the situation or had the forces in I Corps been attacking North Vietnam. It is in this context—this limited defensive situation—that maintenance support strengths, weaknesses, and lessons to be learned should be viewed. In other words—it could have been a lot worse.

Just as with transportation, the Marine Corps maintenance system for South Vietnam reflected the high degree of logistic control exercised by CG FMFPac. Based upon field requirements, and tempered by overall Marine Corps circumstances, maintenance forces were deployed and maintenance systems and facilities were coordinated by FMFPac. This control, as in the case of transportation, proved to be invaluable at the time of redeployment planning because no unusual or special organizations or procedures were required to assure that proper priorities were observed and that maintenance efforts complemented the redeployment planning.

From the outset, the Marine Corps concept of logistic support provided centralized control of supplies and services. This was essential in order to maintain the flexibility required if we were to retain our amphibious assault capability. The initial maintenance concept for the ground units provided for first-through-third echelon maintenance in-country, fourth echelon at 3d Force Service Regiment on Okinawa, and all depot or fifth echelon rebuilding in the continental United States. However, because of the unexpected deterioration of equipment resulting from the climatic conditions of South Vietnam and the effect of years of underprocurement, by 1966, the demand forced FMFPac to initiate fourth echelon repair in-country and to establish a fifth echelon capability offshore. The plan involved an expansion of the program used by Marine Corps aviation for rebuilding ground support equipment, especially generators, at the Public Works Center in Yokosuka, Japan.

The 3d Force Service Regiment in Okinawa, with funds and guidance from FMFPac, would accomplish all the fifth echelon repair and rebuilding within its capability, and then contract with other facilities for the remainder. Although Headquarters Marine Corps rather grudgingly granted this authority to rebuild equipment in the Western Pacific to CG FMFPac, it proved to be one of the great logistic decisions. Despite HQMC's reluctance to give this authority to a field commander, it was CG FMFPac itself who voluntarily recommended that this authority be terminated in 1970, when it was no longer required to support the reduced and redeployed forces. During the period 1966–1970, however, the FMFPac Western Pacific Rebuild Program was absolutely vital. The forces in-country and in support simply could not afford the lengthy delays inherent in having all fifth echelon rebuilding performed in the United States. Furthermore, the cost of such rebuilding in the Western Pacific and the attendant transportation expenses, were much less than if the same items had been returned to the United States. If the troops were to be supplied and equipped properly, the only alternative would have been large overbuys. The FMFPac Western Pacific Rebuild Program led to work being done not only at 3d FSR, Okinawa, but also at 2d Army Logistical Command, Okinawa; Public Works Center, Yokosuka; Public Works Center, San Diego; Marine Corps Air Station, El Toro; and Construction Battalion Center, Port

Hueneme. The program in Fiscal Year 1970 involved 910 items as compared to only 29 in Fiscal Year 1966. Again, the organizational structure within FMFPac, which assumed the movement of such equipment in the normal course of events, proved to be an asset during the redeployment planning and in the preparation of the logistic guidance which provided for the "capture" and redistribution of the equipment within the system at the opportune points in time to avoid redundancy or unnecessary transportation.

The fact that the logistics system of FMFPac was in tune with the tempo of change and redeployment could not have been more evident than in CG FMFPac's initiative to end fifth echelon rebuilding at 3d FSR and return it to the United States. Fourth echelon repair work was again concentrated at Okinawa in order to hasten return of the 3d Marine Division on that island and 1st Marine Air Wing (Rear) in Japan to the highest level of readiness, and to cancel 3d FSR's responsibility as an administrative control agency for the rebuilding program. Thus, all administration of the Fiscal Year 1971 program was returned to FMFPac, which was in the best position to judge priorities.

Marine Corps aviation maintenance followed a similar set of procedures, albeit complicated by the Navy's aviation support systems which basically are aircraft-carrier-oriented. To the greatest extent possible, periodic maintenance and modifications beyond the capabilities of the forces in South Vietnam were accomplished in the Western Pacific, using naval aviation or contract facilities in the Philippines, Okinawa, or Japan.[4] As an example, and despite the expressed reservations of both Commander, Naval Air Systems Command, and HQMC in Washington, FMFPac established a bold program at Atsugi, Japan, which entailed the modification of every CH-46 in the Western Pacific in order to correct a serious problem with tail rotors. By mid-1970, this program was nearing completion on schedule and without incurring any diminished support to forces in South Vietnam. The money saved by accomplishing this modification in Japan rather than at North Island was significant, but it was secondary in comparison to the time saved. Transportation costs were kept low by using transport aircraft and amphibious ships returning to Japan from Vietnam. And, of course, these procedures permitted FMFPac planners to use the fast-moving exchange of equipment within the maintenance system to their advantage in their redeployment guidance.[5]

Complementary to the FMFPac maintenance program was the new equipment replacement and evacuation program. Administered by HQMC, this program involved the scheduled return of Marine Corps equipment from field units in the Pacific to the depots at Barstow, California, and Albany, Georgia, in exchange for new or reconditioned equipment. CG FMFPac determined the distribution of assets and accounted for the return and receipt of items. This positive control at the FMFPac level reduced the opportunity in either the maintenance or the replacement and evacuation program for someone to make some gross miscalculation based upon lack of knowledge and, in addition, allowed FMFPac to make timely recommendations in regard to phasing down both programs as redeployment planning and execution progressed. Thus, the redeployment of the Marine units, the retrograde of their equipment, and the redistribution of both permitted scaling down of the maintenance effort supporting III MAF so that, by the end of 1970, FLC was providing field maintenance support in established shops in South Vietnam or by technical team assistance in the field, while depot maintenance was being performed in the continental United States. The 3d FSR on Okinawa provided backup field maintenance for items irreparable at FLC within 90 days and direct fourth echelon support for units that were based in Okinawa or Japan.

In summary, the Marine Corps maintenance system, manned at all echelons by military personnel and operating essentially the same in war as it had in peace, permitted not only the transition from peace to war and then back, but also permitted better support for the previously neglected forces which had not been in Vietnam. Of particular importance was the fact that previously neglected elements regained much of the amphibious assault readiness status which, as a result of Vietnam, they had lost.

The major maintenance difficulties encountered by the FMF engaged in South Vietnam were directly related to deficiencies in the timely supply of repair parts and to the almost complete failure of the HQMC-sponsored Secondary Depot Repair Program, which never even remotely reached its predicted accomplishments. This program, which was supposed to permit a user to exchange on the spot a component assembly, such as a carburetor, for a new one, was both poorly managed and underfunded. In fact, no such parts were available for exchange.

Much of the success attributed to the FMFPac maintenance system was due to the American talent in Okinawa and the local talent in Japan which helped to overcome the industrial apathy in the United States. An acute example was engineer equipment. On numerous occasions, Japanese industry proved that it could fabricate parts and components, repair the item, and

[4] K. B. McCutcheon, "Marine Aviation in Vietnam," U. S. Naval Institute *Proceedings*, May 1971, pp. 122–155.

[5] Factory employees were brought to Okinawa in 1969 to work on CH-46 helicopters brought in from Vietnam for maintenance.

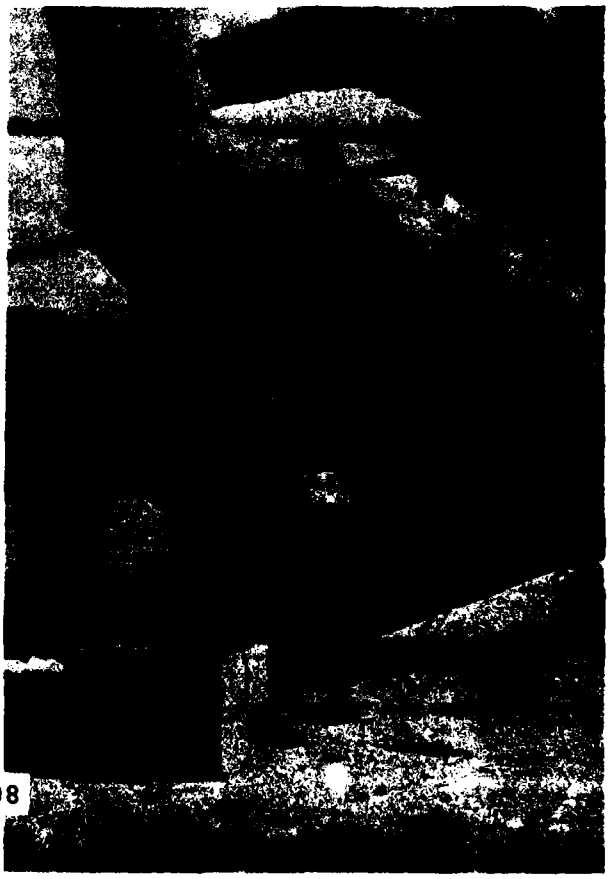
return it to the field unit before a replacement part could even be shipped to a forwarding activity by suppliers in the United States.

Supply

Except for repair parts, Marines deployed to South Vietnam and to supporting roles elsewhere generally were exceptionally well supplied. The pre-positioning of war reserve stocks at or near the points of planned use or issue to the users was responsible for the initial success. Later, the high level of stocks maintained in South Vietnam or offshore continued an unprecedented high level of supply support for combat operations. When critical shortages did occur, the problems were solved by special programs monitored daily by CG FMFPac. The ready solution to all such problems lay in the extremely responsive transportation system. Unfortunately, the speed of its response often led commanders to rely upon it rather than on their own careful planning. As a result, there were occasions in 1967 when expedited items passed over identical items being provided by normal means, creating a redundancy within the supply system. When alerted to this late that year, CG FMFPac began to cancel all special expediting programs and where once there had been six such programs, by August 1968, the Marine Corps Automated Readiness Evaluation System was the only means for monitoring and, if necessary, taking direct action on items requiring expeditious action.

Initially, in 1965, the normal mount-out and mount-out augmentation (MO/MOA) supplies, maintained by the Fleet Marine Forces in the Pacific for redeployments and contingencies, were transferred from Okinawa and Japan to South Vietnam, for use as operating stocks. This provided the early support, but it also hindered the amphibious assault reaction capability of the Fleet Marine Forces. The reconstitution of this critical mount-out capability from excess items in South Vietnam was made mandatory in 1969 by the logistic requirements for the subsequent redeployment of forces from South Vietnam. This redistribution was not done in isolation from other PaCom forces, however.

The Department of Defense established the PaCom Utilization and Redistribution Agency (PURA) in 1967 to maximize local consumption of excess material within the Pacific Command, with a view to saving costs and time that otherwise would be spent in shipping new items from the continental United States. Participants include the Armed Services, military aid programs, Agency for International Development, General Services Administration, and other Federal agencies. After Marine Corps needs in the Pacific are satisfied, all excess items in Marine Corps hands except such categories as petroleum, single-service items, and those under special control are reported to PURA, wherein they are screened by program subscribers and, if required, are requisitioned. Although this program operated in fits and starts during its early years, on 1 October 1970, because of new procedures which permitted the screening within 75 days, the program achieved full participation and effectiveness. It must be noted that only following PURA screening are remaining excesses applied to other Marine Corps-wide needs. As a measure of the Marine Corps' participation in this unified approach, during 1970, III MAF material valued at over 2.7 million, out of 43 million dollars worth offered, was redistributed to other PaCom activities.



Boxes of rations for a Marine infantry outpost south of Da Nang were unloaded from a Sea Stallion helicopter of Marine Heavy Helicopter Squadron 463 in September 1967.

Redeployment Planning, 1969

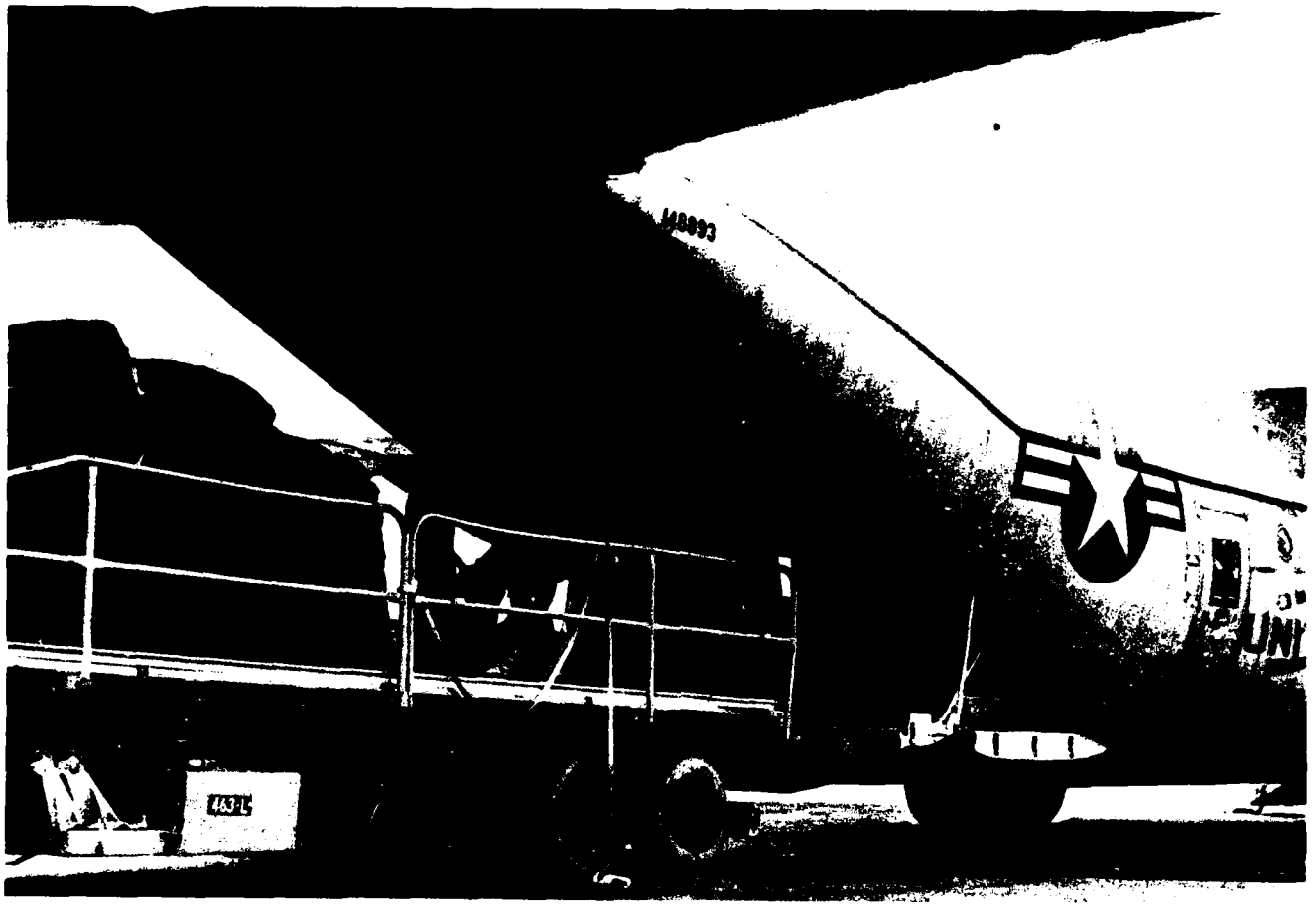
Although broad concepts concerning redeployment had been exchanged previously between civilians in the highest levels of government and a few military commanders in a very closely held fashion, the first significant formal action occurred in mid-March 1969 when a MAC-chartered Braniff 707 roared out of Honolulu airport bound for Clark Field in the Philippines. Aboard were members of the CinCPac Joint Logistic Council (JLC) and Joint Transportation Board (JTB), representing the unified commander and each component Service. Also on board from Washington were representatives from the Joint Staff, the Army, the Air Force, and the Army's Military Transportation Movement and Terminal Service (MTMTS). The Navy and Marine Corps provided no representatives other than those on the JLC and JTB. The mission of the group was to evaluate the outloading facilities in South Vietnam and Thailand, recommend improvements to CinCPac, and report back to CinCPac the status of planning for redeployment of each Service component and command visited in South Vietnam and Thailand. Each member was an expert in logistics and transportation.

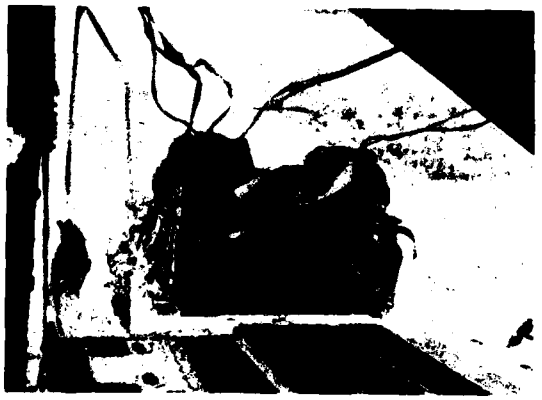
The difficulty, of course, was to conduct a thorough review, visit all the facilities, evaluate the potential, and discuss logistic and transportation planning without revealing the real reason they were there. It was billed as an "orientation visit;" however, the depth of questioning must have mystified those who were given that explanation. The report provided to CinCPac by this group upon their return was especially well received by Admiral McCain and it became the Bible for the planning that was about to commence in earnest.

Among other things, the report clearly indicated that the Marines of III MAF, because of their expeditionary nature and procedures, the embarkation facilities at Da Nang and, when supported by the Navy's amphibious assault force, their capability to outload either over the beach or at the primitive facilities at Cua Viet and Tan My, were in a posture that would permit them to redeploy men, equipment, and supplies much more rapidly than any other U. S. forces in South Vietnam. The pattern of redeployment that followed confirmed this report. From the outset, the Marine Corps redeployed their men, equipment, and supplies simultaneously. With the exception of the Navy's Construction Battalions, the other Services generally moved their men or reduced personnel allowances in a normal manner, but they either turned over their equipment and supplies to other U. S. elements still in Southeast Asia or put them in storage, pending reissue or transfer to South Vietnamese or other Free World forces. Each method had its merits for the Service concerned. The Army postponed transportation costs, prevented saturation of bases at home with equipment for which there would not be sufficient maintenance personnel, and permitted gradual attrition or redistribution equipment and supplies, primarily within South Vietnam. The Air Force had relied so heavily on massive concrete facilities that little, except that portion of a unit's organizational equipment, which could be transported by organic Air Force assets, was involved. In addition, a considerable amount of Air Force material was destined for the South Vietnamese Air Force. Except for support of the Marines, the Navy had kept only a small amount of material ashore, and thus its program consisted mainly of the redistribution of equipment and facilities to the South Vietnamese Navy and the other Services, or attrition of those items not needed by the other Services, the South Vietnamese, or the Fleet. As for the Marine Corps, its plans and programs followed its traditional responsibilities and fundamental austerity.

Paramount throughout all Marine Corps planning and execution was the requirement to return from South Vietnam well equipped and organizationally balanced Marine units for early reconstitution of the Pacific Command's force-in-readiness. This expeditionary readiness wisely overshadowed all other considerations. As a result, the Marines were redeployed as task-organized forces. Even though many units were far below strength on arrival at their destinations, the units continued to exist and quickly were returned to strength and combat readiness. Operational stocks of supplies and floats of equipment (extra allowances to allow quick replacement of losses) that would now be beyond Marine needs in Vietnam were not to be used up or disposed of as surplus. They had been paid for and they were used to help in the reconstitution of forces. Further, the mood of the American people and Congress dimmed any confidence concerning new procurement. It was on this fundamental basis that plans at FMFPac, with HQMC approval, were formulated.

Long before the first units were designated for redeployment, logistic planners at FMFPac were pondering the effect that withdrawal would have on the means and ability to wage war. Certainly the redeployment of the Marines from South Vietnam would reduce the pressure on the supply and maintenance pipeline that had been built up. Large quantities of supplies and equipment, some in use, some still in the pipeline, had to be diverted; equipment under repair or being rebuilt in South Vietnam, Okinawa, Japan, or the United States had to be, upon completion of work, shipped to new destinations; requirements for the forces remaining in South Vietnam had to be divested from redeploying units; material necessary for the equipping of the Vietnamese Marine Corps had to be identified and shipped;





A portion of the 355,000 pounds of cargo that were parachuted into Khe Sanh during the last week of August 1967 is off-loaded from a mobile landing ramp into a Marine Corps KC-130 cargo plane by men of the 1st Air Delivery Platoon. The whimsical sign, "Would you believe EGGS?" was attached to a pallet containing 18,000 fresh eggs that was delivered to Khe Sanh.

facilities had to be closed; and, because CG FMFPac was still responsible for both ends of the Pacific, the reception of units, Marines, and equipment at the other end (Okinawa, Japan, Hawaii, or California) had to be properly routed in order to achieve early readiness for those organizations that would remain in the active or reserve structures.

The Marine Corps has two classes of war reserve stocks of supplies: project stocks and general mobilization reserve stocks. The project stocks are divided into three groups: one for the Atlantic Fleet Marine Force, one for the Reserve Division/Wing Team (4th MAF), and one for the Pacific Fleet Marine Force. Each of the project stock groups is further broken down into 30-day increments of combat support blocks. The mount-out block is computed, brought out of stock, and held by the unit (normally at battalion level). This block goes wherever and whenever the unit goes. The mount-out augmentation block is a second 30-day increment that is maintained by the service support unit responsible for support of the combat unit for which the block is tailored. The third increment is the automatic resupply block which is time phased and retained in a protected status within the Marine Corps supply depot system for the supported unit, and is forwarded as required without unit requisition.

Upon the commitment of Marines from Okinawa and Japan into South Vietnam, they, of course, carried their mount-out and mount-out augmentation blocks with them. As the Marines remained in extended landmass operations, the mount-out and mount-out augmentation blocks were ordered used, partly to avoid deterioration and partly to make up for early shortages of key supply items. In effect, then, they became absorbed as daily operational stocks. As the units remained in combat, they had neither the time nor the facilities to reconstitute their mount-out and mount-out augmentation blocks. It was reasoned by the FMFPac planners that, when redeployment was effected, the reduced operational stock requirements could serve to reconstitute the mount-out and mount-out augmentation blocks for the redeployed units at their new locations. This appears simple; however, as the units would remain in contact with the enemy until the moment of standdown followed by almost immediate embarkation, the normal system of having the basic unit compute, obtain, store, and ship its blocks would have to be replaced by a means that would satisfy the commanders concerned. Fortunately, every level of command down to the Marine battalion has specific and direct responsibility for, and contact with, mount-out and mount-out augmentation (MO/MAO) blocks. This goes a long way toward ensuring command interest and control.

To accomplish the MO/MOA requirement described above, a sophisticated series of computer produced tapes were developed, based upon the detailed historical supply requirements of each type of unit concerned, adding new equipment factors, deleting obsolete items and spaces, and adjusting for the differences between amphibious assault needs and the needs of extended land operations. The basic development was done by FMFPac in continuous liaison with HQMC, the Marine Corps Supply Activity in Philadelphia, and the supply depots. The tapes initially produced required extensive review and this was done by the 3d FSR on Okinawa and the FLC in South Vietnam, which would ultimately use them to identify the stocks that could meet the mount-out requirements. When purged, the tapes were ready to identify the essential MO/MOA requirements from excess stocks and thus permit them to be reconstituted without the need to buy many new supplies or much new equipment.

However, the screening for the mount-out blocks was only part of the screening that was necessary in order to support redeployment. Additional screening was required to identify and redistribute material necessary for a unit's mission and specified in its table of equipment. This meant that units to be redeployed would turn over any excess T/E items to those units remaining. Therefore, redeploying units would return with their basic requirements—but no extras—while those remaining, without cost or requisition, would obtain equipment which they needed. Of course, if identical material was actually en route to the unit remaining in-country, it was to be intercepted at the appropriate point, i.e., Barstow, before shipment, or 3d FSR or FLC after shipment, and subsequently redistributed or returned to stock.

Certainly the screening and redistribution effort of the Marine Corps was not conducted in isolation from the overall requirements of the Pacific Command. The system was devised to avoid unnecessary shipping and procurement costs while still meeting the readiness requirements of both those units remaining in South Vietnam and those redeploying. Holding down costs, of course, was a motivating factor; maintaining the highest level of readiness of Marine units in South Vietnam and the remainder of the Marines and other forces in the Pacific was another, and more important, factor. Accordingly, FLC's operating stock excesses, which comprised the largest block requiring redistribution or retrograde, were subjected to a variety of screening programs. Priorities to meet were established to fill: (a) MO/MOA requirements for Fleet Marine Force Western Pacific, Mid-Pacific, and Eastern Pacific commands; (b) operating stock or T/E deficiencies of these same FMFPac commands; (c) needs of other Services within the Pacific Command, and in-country inter-Service wants; (d) Marine Corps and other Defense and Federal agency requirements outside the Pacific Command.

Some items, such as trucks and weapons, were screened for South Vietnamese Marine Corps needs, South Korean Marine Corps wants, overall South Vietnamese Armed Forces requirements, and the needs of other U. S Services in South Vietnam; and finally, any remaining items were distributed to other FMFPac commands, other Marine Corps units, or to the Marine Corps stores distribution system.

By the end of 1970, more than 3.5 million dollars worth of MO/MOA stocks had been identified, shipped, accounted for, and stored by FMFPac units redeployed to Okinawa and Japan, and 2.7 million dollars worth had been redistributed to other Pacific Command activities. By the same system, FMFPac acquired material valued at 2.0 million dollars from other Services—all needed to fill operating stock or MO/MOA shortages from Okinawa to California; and throughout 1970 alone, 8,576 items valued at 2.5 million dollars were transferred to the South Vietnamese Armed Forces.

Redeployment-Movement 1969–1971

The unclassified designator for the redeployment of U. S. forces from South Vietnam was "Keystone." As

of July 1971, when the last Marine combat element redeployed, seven redeployment increments, involving over 80,000 Marines, had been completed. They were Keystone Eagle, Cardinal, Blue Jay, Robin Alpha, Robin Bravo, Robin Charlie, and Oriole. Within each increment the redeploying forces were divided into embarkation units, each consisting of those elements designated for simultaneous embarkation and the same destination. This procedure provided excellent control during standdown, staging, and loading and was in accordance with standard amphibious doctrine. Marine Corps forces and equipment were involved in each increment except Robin Bravo.

Except for a few Marines who were essential to the completion of supply, packing, preservation, and distribution tasks, the embassy guards in Saigon, and a small number of advisors, Keystone Oriole completed the redeployment of the Marines from South Vietnam. Separate personnel actions caused reductions in addition to those in the Keystone series, so that after Keystone Robin Charlie, only about 12,800 Marines, designated as the 3d Marine Amphibious Brigade, remained to be redeployed as part of Keystone Oriole. Significantly, III MAF Headquarters, the 1st and 3d Marine Divisions, the 1st Marine Air Wing, the major portion of FLC, and the augmenting units provided from the 5th Marine Division, had all departed.

Keystone Eagle—1969

Keystone Eagle, involving the movement of units to Okinawa, Japan, and the United States, began in July 1969, and was completed by the end of August. It was the first large transfer of Americans from Vietnam. From the Marines, it included a regimental landing team, the 9th Regiment plus selected combat and combat service support units, and a medium helicopter squadron, all of whom went to Okinawa. Other aviation units were sent to Japan and the United States. Approximately 8,400 Marines and attached naval personnel were moved, accompanied by their organic equipment, plus some of the equipment and supplies not needed in South Vietnam. Careful planning permitted maximum use of amphibious assault ships while still maintaining an adequate landing force. This employment of the amphibious assault ships for Keystone Eagle saved the Navy Department well over a million dollars and again demonstrated the versatility of the assault ships, which provide the dual capability of assault entry or administrative lift. The planning for Keystone Eagle was so closely held that the units designated to move were notified only days prior to departure. This led to some mistakes in execution; however, this initial effort would provide a number of lessons which would permit a constant improvement in the stand-down, embarkation, and movement of forces from Vietnam.

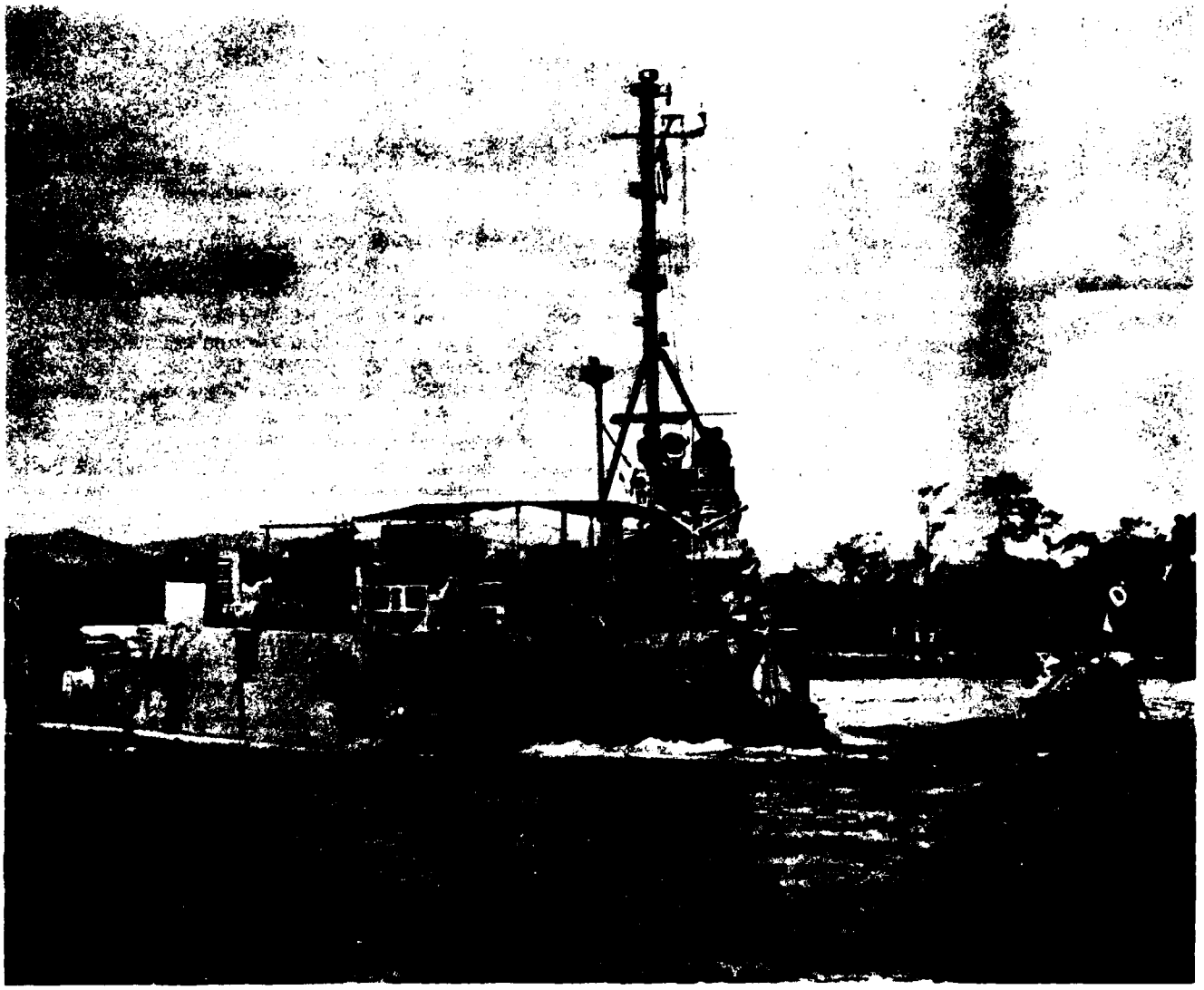
Keystone Cardinal—1969

The second increment included approximately 18,500 Marines and attached naval personnel. It began in October 1969 and was completed by 30 November. Nearly 8,700 of them went to Okinawa, including those 3d Marine Division elements not redeployed during Keystone Eagle, combat support and combat service support elements, the headquarters of Marine Air Group-36, and some helicopter units. But the largest part of this increment, over 8,900, returned to the West Coast of the United States, while nearly 900—1st Marine Air Wing (Rear) and some fixed-wing units—moved to Japan. As before, amphibious assault ships provided the primary means of transportation for equipment and for many Marines, with a savings in excess of $3.7 million above common service transportation costs. Keystone Cardinal permitted the 5th Marine Division, which was essentially a training organization in California with most of its units deployed to South Vietnam, to be deactivated, and a viable organization, the 5th Marine Amphibious Brigade, with veteran personnel and adequate equipment, to be activated in its place. Thus, when taken in conjunction with the re-establishment of the 3d Marine Division on Okinawa and air elements on Okinawa and Japan, a big step had been made towards reconstitution of forces in readiness.

Keystone Blue Jay—1970

By the beginning of 1970, the combat service support and logistic functions for the Marines in South Vietnam had changed drastically. The northernmost force logistic support group of the Force Logistic Command, which had been organized to support the 3d Marine Division, was deactivated after the redeployment of that division. Further, as units of the 1st Marine Division, generally located south of Da Nang, prepared for redeployment during Keystone Blue Jay, it became necessary to shift logistic activities northward and consolidate them in the Da Nang area. Despite its major involvement in redeployment activities such as standdown of units, staging, marshalling, embarkation, and the redistribution of excesses, III MAF continued to provide an orderly flow of supply, maintenance, and transportation support to Marines in the field. The key to this two-way action was the ability of FLC to change its organization to meet constantly changing requirements. The command relationships inherent within the FMFPac-III MAF-FLC flow provided an essential and stable means of accomplishment.

Keystone Blue Jay commenced 1 February 1970 and was completed on 7 April. During its course, numerous



There was extensive employment of landing craft and ships as coastal freighters in support of the troops in I Corps Tactical Zone during the period 1965–1969. Among the naval vessels so employed were the YFU-, *seen steaming up the Perfume River toward Hue, and the LCU 1484, seen unloading supplies at Dong Ha.*

aviation units, including nearly 1,100 members of the 1st Marine Air Wing, were moved to the 1st Marine Air Wing (Rear) in Japan. A very small unit, only 24 in number, went to Okinawa, while approximately 11,400 Marines were transported to California and nearly 400 went to Hawaii. In this movement, 12,900 men, their organic equipment, supplies, and some excess equipment, left South Vietnam. The major units redeploying to California were the 26th Regimental Landing Team and three aviation squadrons. The elements which moved to Hawaii provided valuable and long-absent support units to the 1st Marine Brigade.

Nearly four million dollars were saved in Keystone Blue Jay by using amphibious assault ships for the movement of Marines.

Keystone Robin Alpha—1970

Commencing 10 July 1970, Keystone Robin Alpha shifted some 17,000 III MAF personnel and associated unit equipment to the United States, Japan, and Okinawa. Marine Aircraft Group-13 was relocated at El Toro, California, while the major ground unit, the 7th Marine Regiment, returned to Camp Pendleton, California, with other combat support and combat service support elements, to join the 5th Marine Amphibious Brigade. Small units redeployed to Japan and Okinawa, while a fighter/attack squadron redeployed to Hawaii, partly in amphibious ships and partly by flight ferry. In addition, a number of units totalling over 4,500 officers and men were deactivated in South Vietnam and their residual equipment was returned to the stores system after in-country screening. Savings from the use of amphibious assault ships during this redeployment increment totalled nearly $3.5 million.

At the start of 1970, there had been a logistic support group, three logistic support units, and one sub-unit, in addition to the FLC/1st FSR headquarters. By the end of Keystone Robin Alpha, FLC had shrunk from over 5,500 Marines at the beginning of 1970 to just over 3,800. The logistic complex had diminished to the FLC and 1st FSR headquarters at Da Nang and only two outlying logistic support units. The Naval Support Activity, Da Nang, had also been reduced drastically and finally closed during 1970, and many Navy and Marine Corps facilities and functions had been transferred to other Services or to Free World forces. In all, 30,592 Marines and attached naval officers and men, 709,886 square feet of vehicles, and 57,031 tons of cargo were taken from Vietnam during 1970 alone.

Keystone Robin Charlie—1971

The Marine Corps did not participate in Keystone Robin Bravo, but they did take part in Keystone Robin Charlie. This sixth increment, which redeployed between 1 January and 30 April 1971, included a headquarters element of 67 men sent to Okinawa. Some 1,300 men in numerous aviation units were moved to Japan, a separate support unit of nearly 240 was transferred to Hawaii, while over 8,900 men—the majority of the 1st Marine Division, less one regiment, plus significant aviation units—were returned to California. In addition, 856 men, who had been assigned to units which were deactivated in Vietnam, were returned. On 30 April, the President of the United States participated in ceremonies noting the official return of the 1st Marine Division (—). Increment six redeployed 11,358 men and large amounts of equipment.

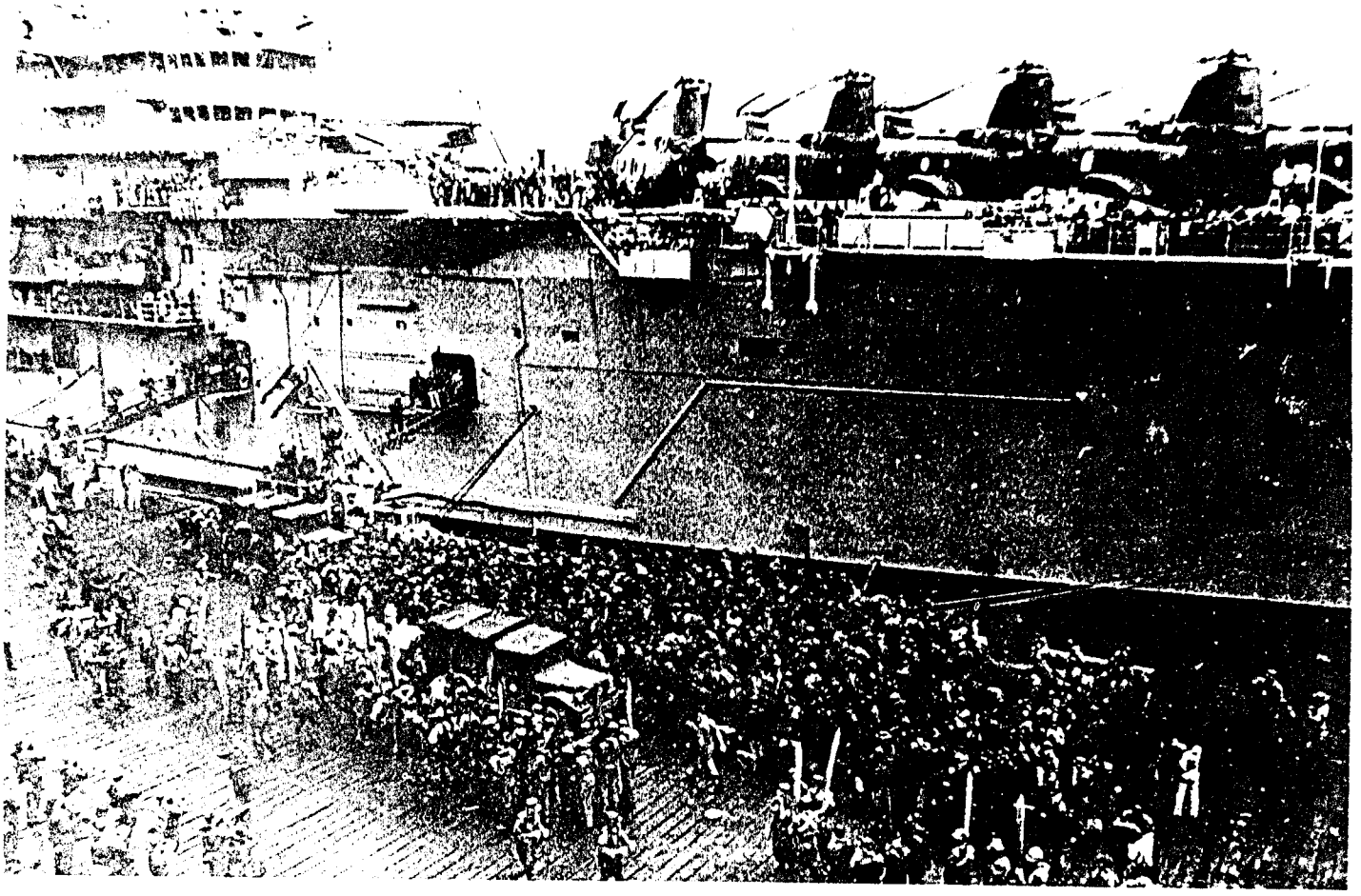
Because of the 20-knot speed of virtually all the amphibious assault ships now in the Pacific Fleet and especially the new fast LKAs, assault ships during the long time-frame of Keystone Robin Charlie made several voyages in the Western Pacific before their big lift back to Hawaii and California. All the time they maintained one fully ready Amphibious Ready Group for assault operations.

Keystone Oriole—1971

The final redeployment increment for the Marines was completed in July 1971. It consisted of 14 embarkation units and again featured the fast new amphibious assault ships. Some 12,800 Marines and their equipment were involved, again with substantial savings accruing.

Use of Opportune Amphibious Assault Ship

During the long redeployment, available amphibious assault ship space was employed constantly. Such space often became available as a result of inter- and intra-theater transit of amphibious squadrons and scheduled movements of ships to overhaul, or when units embarked for Keystone redeployments did not require all the space assigned. Once confirmed, extra space was quickly filled with retrograde cargo or aircraft and vehicles being returned to Okinawa, Japan, or the United States for maintenance. In Hawaii, FMFPac constantly scanned—and still does—the overall Pacific Fleet schedules and notification of availability was rapidly transmitted to the Western Pacific, Mid-Pacific, or Eastern Pacific commands, as appropriate. At Da Nang, FLC in turn maintained an immediate readiness to respond to last-minute assault ship space availability opportunities. When such opportunities arrived, FLC units were diverted from less time-sensitive tasks to load ships around the clock and thus not delay sailing schedules. In one day, as many as four ships have been loaded under such circumstances. Back in California, outbound material, especially new vehicles and aircraft required for Western Pacific forces, also is sent in opportune



As part of Keystone Eagle, the Marines' first deployment from Vietnam, troops of the Third Marine Division board the USS Iwo Jima *(LPH-2) at Da Nang in September 1969, bound for Okinawa. The use of amphibious assault ships for this purpose not only saved millions of dollars in transportation costs, but also provided training to the ships' companies in the handling of Marine Corps equipment.*

amphibious assault ships whenever this is possible.

These efforts have paid great dividends, especially since 1967. Up until then, the Navy's Amphibious Assault Force was loath to be employed in an opportune administrative lift role, despite the obvious opportunities to transport needed Marine Corps equipment at a greatly reduced cost and by so doing provide the crews of the ships with training and experience in handling the same equipment they would be embarking or debarking during assault operations. In 1967, however, owing to a newly kindled interest by both ComPhibPac and CG FMFPac, the use of opportune assault ships, when available, was greatly accented. This new spirit of cooperation resulted in savings to the Navy Department (stemming from reduced commercial transportation charges and totally separated from the Keystone redeployment savings) as follows: 1967—$502,613; 1968—$1,299,966; 1969—$1,605,922; and, 1970—$884,886. The reduction in 1970 was due to reduced forces and redeployment. As an added example, during the 4th quarter of Fiscal Year 1970, in the midst of redeployment, 32,297 measurement tons of cargo and equipment were shipped between South Vietnam, Okinawa, Japan, Hawaii, and the continental United States on board opportune amphibious assault ships. The use of those ships during that quarter alone resulted in a savings to the Navy Department of $888,881. Such use of amphibious assault ships in an administrative lift role is, and must be, a secondary consideration. Obviously, a degradation in readiness occurs whenever highly specialized ships are so employed. It does provide training, however, and when carefully scheduled, can generate significant savings which, if applied to that purpose, could partially fund the construction of additional and badly needed new amphibious assault ships.

In addition to those logistic areas cited previously, there are many others, of which the construction and engineer aspects were most significant. They have been well covered in other issues of both the *Naval Review* and the *Proceedings*.

The medical facilities and evacuation chain were also monumental in scope. Of special interest to the Marines

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were the hospital ships whose facilities were clean, offshore, and isolated from both the environment and the enemy. Unfortunately, it took the Office of the Secretary of Defense (OSD) a little too long to recognize the value of this type of medical support; and, at times, some Marine commanders failed to take full advantage of the hospital ships. The original OSD apathy simply reflects the basic Air Force/Army orientation that prevails within OSD. The reluctance of some commanders to use the hospital ships fully reflects their desire to retain their manpower close by, i.e., in the division hospital. All logic, however, would point to the maximum use of the clean, isolated hospital ships for appropriate cases and use of the division or Navy hospital ashore, if available, for surge requirements. This was the policy enunciated by CG FMFPac and reiterated on several occasions when the policy was not being properly implemented.

Will We Still Be Able to Enter Forcibly?

One other area of both operational and logistic concern to the Marine Corps is the amphibious assault force. Despite the work of the amphibious assault ships from the day of the initial landing in March 1965 to the final redeployment (in both their primary purpose—amphibious assault—and their secondary task of providing opportune administrative lift), the amphibious assault ship force has suffered a severe decline in order to maintain other naval forces. This situation, while not having a direct bearing on the Vietnam involvement, has great bearing upon the Navy's current ability to project power ashore by forcible entry as a national policy option and to provide opportune life capability.

To pursue this point, amphibious assault force reductions affect directly the readiness, training, and operational capabilities of both the Navy and the Marine Corps. A readiness to enter forcibly cannot be maintained without active, highly trained, closely integrated Navy and Marine Corps forces.[6] The continued reductions of amphibious assault ships to the level currently being predicted will both curtail essential forward seabased deployments and limit training severely. The modern amphibious assault ships, which can steam at 20 knots and which have the newest habitability and engineering features, cannot serve the nation to their fullest capacity if too few of them are in commission. An examination of the various public announcements concerning ship inactivations by type since 1968 shows a reduction of over 60% in amphibious assault ships, compared to an overall ship reduction of about 37% in the rest of the active Navy during the same time frame. Such a loss of vital support to the Marine Corps and the nation appears unduly precipitous. Also, such losses in ship numbers have impact in other ways; for example, the loss of well deck space means a loss in heavy landing craft availability—and it was the heavy landing craft that provided the main logistic artery from Da Nang to the northern parts of I Corps for many years during the South Vietnam involvement.

If the forecast decommissionings occur, it is doubtful that the art of amphibious warfare, and the only forcible entry capability available to the United States, will remain viable.

Summary

In looking back over the story of Marine Corps logistic plans, policy, and support in the Pacific, and especially in South Vietnam, since 1965, it is possible to dredge up many pluses and minuses. For example, in the early 1960s, Marine Corps aviation was so interested in airframe types, and flying them, that little concern was given to maintenance, especially maintenance planning and procurement of ground support equipment. As a result, Marine Corps aviation's greatest logistic problem in South Vietnam was the maintenance of under-procured ground support equipment.

Further, Marine Corps engineer equipment and spare parts procurement requirements were continuously underestimated at the Washington level. The reluctance by the engineer authorities to participate in the HQMC Replacement and Evacuation Program until late in the Vietnam involvement is indicative of a failure to accept reality. In 1965, there just was not enough engineer equipment for the task ahead. Procurement of spare parts and new equipment never equalled requirements, and the idea that joining the cyclic Replacement and Evacuation Program along with other essential commodities was unnecessary, despite repeated CG FMFPac urging, was naive to say the least. As a result, numerous special engineer "get well" programs were developed, the assets of IV Marine Division/Wing Reserve were taken, and on-site technical assistance teams were almost always needed.

The development of methods for the orderly booking of cargo shipments and the close cooperation between the Army's 2d Logistic Command and 3d FSR on Okinawa, with Commander, MSTS, Far East (COMSTSFE) in Japan was one of the real pluses.[7] Equally impressive were the MAC-sponsored chartered aircraft and personnel airlift procedures.

The FMFPac Rebuild Program, despite its long distance disclaimers, was not only a necessity, but also

[6] J. B. Soper, "A Marine's View of Amphibious Assault Forces," *Naval Review 1966*, pp. 24–41.

[7] Lane C. Kendall, "Capable of Serving as a Naval and Military Auxiliary . . . ," Naval Institute *Proceedings*, May 1971, pp. 210–227.

a notable success. The same was also true of the FLC and its responsive subordinate task organizations that were developed. A case could be made that FLC should have remained on Okinawa to preclude the criticism leveled by the General Accounting Office that a depot-type support organization, rather than an expeditionary force element (3d FSR), should have been left on Okinawa. However, what was done, did work with great success, and, in the final analysis, CG FMFPac controlled both organizations anyway.

The logistic situation in the Western Pacific, both from a Marine Corps and a Defense Department-wide point of view, was not improved by the efforts of the civilian analysts in the Systems Analysis Section of the Comptroller, Office of the Secretary of Defense, in the early and mid-1960s. These men, armed not with military experience of any sort, but only with their textbooks, their preconceptions, and an anti-military attitude, sometimes damaged the efforts of men far away by their procurement and distribution plans which failed to provide the support necessary for the field commander. The programmed under-procurement of repair parts for the CH-53 helicopter and delay in procurement of modernized motor transport assets are examples. In short, the very real logistic success in the Western Pacific during 1966–1967 was achieved despite their efforts, rather than with their help.

How much is enough? This is not academic to the commander. "Enough" is what it takes to win—not too much—simply the right support at the right time. No commander wants to be burdened with too much equipment or material; however, he knows, intuitively, what is essential and in a practical sense "what breaks down," regardless of the predictions developed by some remote authority. This is what the systems analysts, perhaps because of their backgrounds, did not understand. They provided too few items when they were badly needed, and an over-abundance of many items when it was too late. Their judgments (which they were not supposed to make) were based on theory—but wars do not work in algebraic formulas. Above all, the analysts had no responsibility for their decisions or recommendations and this, more than any other thing, created a chasm between the analysts and the military planners. The latter had to introduce military judgments and then take the staff responsibility when their recommendations went to their commanders, and, perhaps soon afterward, the actual execution responsibility in the field.

Perhaps the greatest failure in redeployment was communication. Not radios or telephones or radar, but the spoken word. National news reporting of the progressive withdrawal and redeployment activities was, and is, a disgrace, as it has virtually ignored the facts in regard to the withdrawal of units and equipment. Today, very few Americans are even aware of such withdrawals, since the media has concentrated almost exclusively on "personnel returning," thereby adding to the illusion that withdrawal from Vietnam only involves putting "Johnnie" on an airplane and sending him home. The fact that the Marine Corps has totally reconstituted its forces in Okinawa and Japan and virtually paved the beaches at Del Mar, California, with returning equipment remains unknown to the public. Accordingly, the American people are unprepared to understand the time required for the withdrawal. Certainly no responsible military official has suggested that any man should remain in Vietnam longer than necessary for the sole purpose of evacuating or redistributing material; however, the handling of material is a vital task unless the American taxpayer would prefer to buy the same equipment twice.

Of course, the logistic and operational support provided to Marine forces by the Naval Support Activity, Da Nang, the Construction Brigade, the great naval guns, MSTS, MAC, and the "Amphibs" was outstanding. It was a team effort in every sense—going in—staying in—and coming out.

The South Vietnam involvement now represents to the Marines, as General Chapman, the former Commandant of the Marine Corps stated, ". . . an event of another place, another time." He added, ". . . I don't know what the historians will call what has been accomplished in Vietnam . . . but, of the Navy men and Marines—who fought and bled in this war to carry out their mission—they did accomplish their mission."[8]

At the beginning, it was the operational and logistic status of FMFPac that permitted the early employment of its units. In the end, it was the same capabilities that permitted FMFPac to be redeployed at the earliest and to re-establish itself as the country's force in readiness.

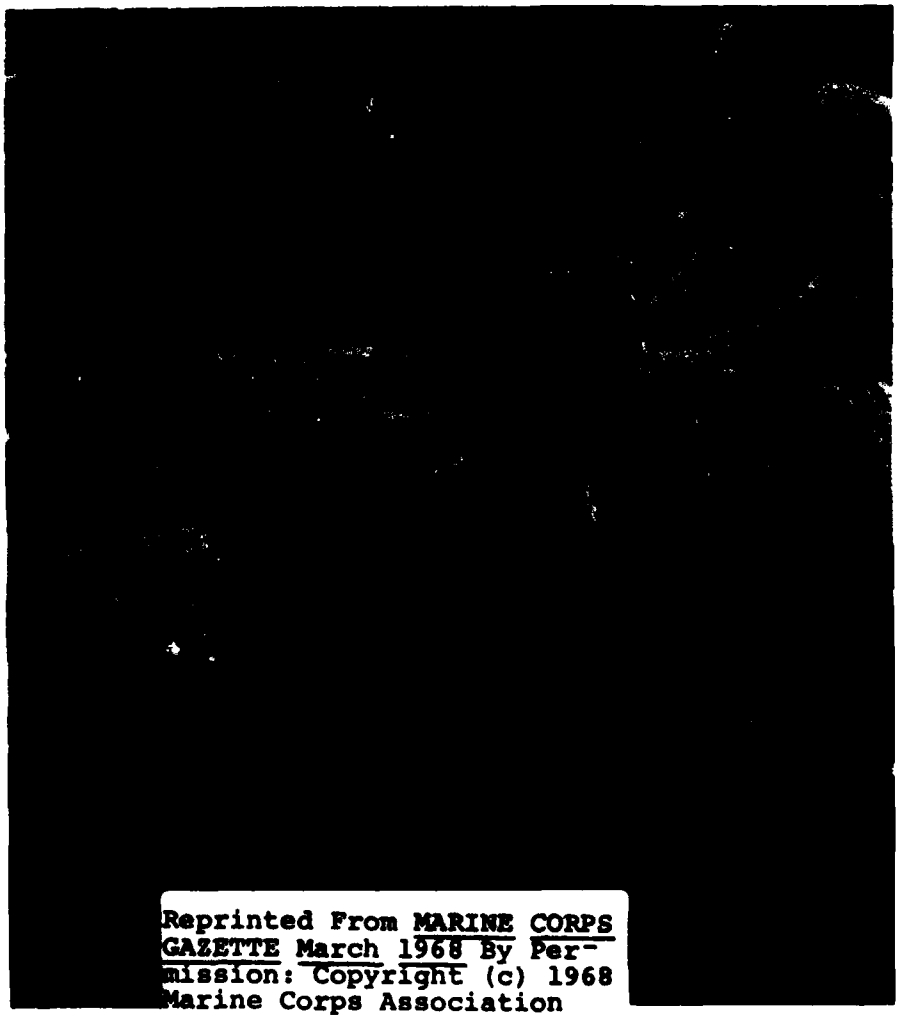
James B. Soper

[8]General L. F. Chapman, Commandant of the Marine Corps, "Address to the Navy League National Convention, San Diego, California," 12 May 1971.

USMC Civil Affairs in Vietnam

A PHILOSOPHICAL HISTORY

By LtCol D. L. Evans, Jr.



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LtCol Evans received the Bronze Star Medal for his performance of duty as Asst III MAF G-5 in Vietnam. He was also Recorder, I Corps Joint Coordination Council for Civil Affairs. After completing his tour in March, 1967, he became Civil Affairs Officer, Civil Affairs Br, G-3, HQMC. He is a graduate of the Army's Civil Affairs School at Fort Gordon, Georgia.

This is a story about the 'Other War'—the campaign to deny the enemy the vital support of the people.

MARCH of this year marks the third anniversary of the landing of the first major combat elements of Marines in South Vietnam. They came in response to an invitation by the government of that country. The armed forces of the Republic of Vietnam (RVN), and now the U. S. Marines, became committed to a war that seemed to defy solution. The enemy main force units posed no new problems; however this could not be said for the Viet Cong (VC) guerrillas and the VC infrastructure, both of which had long been entrenched in most rural hamlets. These enemy elements derived the major portion of their support from the local populace. This support was sometimes freely given, but more often was exacted by fear, extortion, and terrorism. While the enemy main force units demanded the constant attention of the Government of Vietnam (GVN) Armed Forces, the VC guerrillas and infrastructure continued their efforts to alienate the people from their legally constituted government, with only infrequent interruptions. Continued successful application of this stratagem over a sufficient period of time would undoubtedly cause the people to lose confidence in the GVN and thereby pave the way for a VC victory. The ultimate goal was the willing or unwilling support of the people. The type of war being waged was obvious; an effective means by which to counter these thrusts was not so obvious. This was the situation in March, 1965.

Established ashore, the USMC capability for offensive action was severely curtailed because of the primary mission of airfield defense. Thus the majority of Marine units found themselves in a static defensive role, physically located in the densely populated area which surrounds the airfield complex at Danang. Also, they daily found themselves face to face with an environment that included the VC guerrillas and infrastructure. They were constantly reminded of this unseen VC presence by the mines, booby traps, snipers and terror incidents which occurred nearby. Lacking sufficient forces to both guard the airfields and to search for enemy main force units, they concentrated their efforts against the local guerrillas. They realized that counteraction against those few guerrillas who disclosed themselves was not the total answer. The solution, if one could be found, was to win the support of the people, and thereby deny that support to the VC. They also realized that the main thrust of the people's support should be for their own legal government, and secondarily for the USMC. A

modest civic action program was initiated in an effort to gain that necessary support of the people. All too often civic action projects were of necessity conducted unilaterally because of the lack of available GVN support, however, the guerrilla was of immediate concern and so was the need for civic action.

Civic Action Commodities

Limited initially to use of USMC organic resources, civic action projects were oriented toward medical assistance, repair of existing roads and facilities, and minor new construction projects. The doctors soon discovered that many of the superficial ills of the people, such as rashes and sores, could be cured by simply keeping the infected areas clean. The result was a loud plea for soap soon heard throughout the United States. The response from the ever generous American public was not long in materializing. Notification of successful soap collection drives poured into Marine Corps offices throughout the country. Transporting the soap and other commodities to Vietnam immediately posed a serious problem to the existing pipeline already overloaded with military supplies. The problem was solved by shipping civic action commodities on a space available basis, via whatever transport means available. Project HANDCLASP coordinators were designated at Norfolk and San Diego, where commodities were collected, stored in warehouses, and offered for shipment. This system, now expanded to eight warehouse locations, continues to provide the major portion of civic action commodities being used in I Corps today.

U.S. Civilian Agencies

The presence of a number of U. S. civilian agencies in I Corps was known to the Marines from the outset, though interrelationships had not been developed at that time. The mutual need for coordination and cooperation immediately became apparent when the civic action program began. The civilian agencies possessed commodities, but lacked the manpower to provide an effective system of distribution and control. The Marines were in daily contact with the civil populace located in and adjacent to the areas which they controlled militarily, but they needed commodities for use in the civic action program. A natural alliance for mutual support soon developed, which continues to grow in effectiveness today. The largest civilian organizations in I Corps in regard to available commodities were the U. S. Agency for International Development (USAID), the Cooperative for American Relief Everywhere (CARE) and Catholic Relief Services (CRS). USAID representation in I Corps consisted of a Regional Office located in Danang, and a provincial office located in the capital city of each of the five provinces. CARE and CRS each had one representative for the entire corps area, both located in Danang.

The need for a means to insure continuous coordination and cooperation, between the various agencies and organizations which shared an interest in winning the willing support of the people for the GVN, resulted in formation of the I Corps Joint Coordinating Council (JCC) in August, 1965. This Council's membership includes senior representatives of all major U. S. and GVN organizations and agencies, both military and civilian, located in I Corps. The Council, as such, has no directive authority or funds, but through its senior membership has access to the sum total of the available authority and resources. The mission of this Council is to monitor progress of the GVN Revolutionary Development (RD) Program, and to provide a ready forum for frequent discussion of attendant problems. This group meets weekly and conducts one meeting each month in one of the province capital cities for a more detailed look at RD progress within the province. The Council has eight permanent committees which monitor the interest areas of public health, education, psychological operations, roads, refugees, commodities distribution, agriculture and police. In the fall of 1966, the Council encouraged and assisted with the formation of province-level joint coordinating councils. These JCCs are independent of the corps-level council, but have parallel organizations and missions. The steady increase of GVN participation in Council activities and Council sponsored programs is significant in assessing the value of the JCC.

By the end of the summer of 1965, the Third Marine Amphibious Force had developed the framework of the organization which was to conduct its civic action program. A 5th general staff section was created which was called the G-5 Section. This section was assigned the staff responsibility for the conduct of civil affairs which included civic action. The Third Marine Division followed suit and established a G-5 Section. Regiments and battalions appointed Civil Affairs officers, however, since additional Marines were not initially available, one staff officer in each of the unts was assigned this task as an additonal duty. This organization facilitated the development of effective techniques for distribution of civic action commodities, for dissemination of civic action information, and for collection of data for use in evaluating the effectiveness of the program.

A need for a system to control the distribution and end-use of commodities, and a system for preventing overlap of projects soon developed. III MAF responded by assigning specific areas for civic

action coordination to each of the major subordinate units, along with instructions for these commands to further sub-divide the areas for assignment to their sub-units. This system accomplished two things. It provided for one civic action officer to continually coordinate with the same local GVN officials located within his area, and it required coordination with other civic action officers to conduct civic action in another unit's assigned area. Civic Action area boundaries were drawn along political boundaries to the extent allowed by the military situation, to further facilitate coordination between local GVN officials and civic action officers. Consideration was given to the principle of assigning larger segments of rear areas to supporting units, thereby limiting the size of the areas assigned to the combat units located on the periphery of the tactical area of responsibility (TAOR). Other U. S. military units, located in I Corps but not under the operational control of III MAF, participate in the III MAF Civic Action Program by mutual agreement. The considerable capabilities of the Naval Support Activity (NSA), the Naval Construction Bns (Sea Bees), the U. S. Army and U. S. Air Force units and the Korean Marine Brigade are in this way added to the total resources for civic action. III MAF civic action commodities are provided for use by these units.

USMCR-CARE Civic Action Fund

As the civic action program matured other needs and problem areas became evident. Requests for commodity support often could not be filled due to the lack of certain needed items and due to the uncertain arrival time of materials being shipped on a space available basis. This situation often resulted in embarrassing delays, and it tended to erode the overall effect of the program. As though in answer to this problem, the Marine Corps Reserve concluded an agreement with CARE whereby the USMCR would solicit money for support of the III MAF civic action program, and CARE would act as the custodian of the fund. This program immediately proved successful, and III MAF was provided with one of the most flexible and useful civic action tools in its inventory.

The Medical Civic Action Program (MEDCAP) was one of the first programs to be implemented. It was immediately successful since it provided an excellent opportunity for rapidly establishing good rapport with the people. The intentions of this program could hardly be misunderstood, and the effect upon the people was one of personal benefit. All too often, this program was conducted unilaterally because of the very limited number of GVN medical personnel, and also because of the scarcity of trained rural health workers. Those who were available were invited and encouraged to participate. On-the-job training was given to volunteers who offered to assist the MEDCAP Teams, and in this way the local people were encouraged to contribute to the welfare of their own community.

As good health is prerequisite to the general well being of the people, so is education prerequisite to their economic, political and social development. The MEDCAP efforts produced rapid, tangible and personal results. An education program offered none of these advantages, however, the vital need could not be ignored. In the Spring of 1966, III MAF developed an effective school-building program, easily the most complicated civic action program developed to that time. Some units had already constructed classrooms as a part of their civic action programs with varying degrees of success. Lessons learned were consid-

Trusting mother permits MedCap corpsman to examine sick child.

cted in the development of the III MAF program, and other proven techniques were carefully incorporated. Detailed guidance was issued to subordinate units in order to minimize problems inherent in any undertaking of this magnitude. Certain requirements had to be met by each hamlet which desired to participate in the program:

- an adequate site must be provided
- the people must agree to provide self-help labor for construction
- a teacher must be provided and a salary for the teacher guaranteed.

III MAF agreed to provide in return, construction materials, technical advice, and equipment for clearing and grading the site. Before applications were approved, each location was coordinated with appropriate GVN officials and with USAID to insure compatibility with other school building programs. Blueprints used for classroom construction by the GVN were reproduced and distributed to insure uniformity of construction and to enhance the concept that a Vietnamese classroom had been built by Vietnamese. The USMCR-CARE Civic Action Fund proved to be invaluable in support of this program by providing a ready means for acquiring special hardware items not available through other sources.

Several bonus effects were realized as a direct result of this program. The participating Vietnamese gained a sense of pride and accomplishment, acquired a knowledge of the trade skills involved, and gained a feeling of community spirit. Civic Action officers learned the value of detailed planning in connection with major civic action projects. During the planning stage of the classroom construction program, an earth-block factory was established which employed a number of refugees who lived nearby. An engineer unit sponsored this project. A large number of these blocks were formed and stockpiled, and subsequently used for classroom construction in areas where suitable soil was not available for block making.

In June of 1966, the U. S. Army 29th Civil Affairs Company arrived in Danang, and was attached to III MAF. This company was activated, organized and trained specifically for the purpose of augmenting the III MAF civic action program. The company consisted of a headquarters element, six civil affairs platoons, and a number of functional teams. The civil affairs platoons are capable of supporting regimental or division sized units, and the functional teams are capable of providing technical advice at the corps level concerning their particular civil affairs specialties, including public health, agriculture, refugees, education, public safety, legal and others.

The platoons were initially attached to the infantry regiments and immediately began the necessary task of developing civil affairs studies for their assigned areas. The finished studies provided necessary statistics, identified problem areas, and included recommendations for corrective action. The functional teams were retained at III MAF, and initially assigned the task of developing corps-wide civil affairs studies relating to their functional specialties. Concurrently all elements of the company established liaison with their logical counterparts, both U. S. and GVN. They became an active and effective addition to the existing civic action program. Addition of this company to the III MAF organization for the conduct of civic action greatly increased the capability for both planning and conducting this program.

Operations Related to Civic Action

Many types of combat operations support the GVN Revolutionary Development Program and the III MAF Civic Action Program, however, three of these warrant special attention due to the close relationship which has been developed.

► The Combined Action Unit Program was first implemented in the Fall of 1965. A USMC unit was integrated with a GVN Popular Force (PF) unit. This Combined Action Platoon (CAP) moved into a hamlet, provided protection for the people and thereby denied this hamlet to the VC. Members of this combined unit shared rations and quarters, trained and fought side by side. Eventually they gained the confidence of the people who furnished the intelligence which enabled the unit to kill and capture a number of local guerrillas. This program has been developed and refined, and is now standardized in organization and technique of employment. Today the organization consists of one Marine rifle squad—augmented with one hospital corpsman which is combined with one GVN PF platoon. This unit is assigned the mission of providing protection for a particular hamlet. These men, like the original CAP, share rations and quarters and train and fight side by side. Each CAP is assigned to a nearby USMC infantry battalion for operational control which provides fire support as required. The VC has never regained control of a hamlet which is protected by one of these units. Plans have been made to increase the number of CAPs due to the success thus far achieved.

► The County Fair concept was first employed late in 1965. The purpose of this operation is to isolate a hamlet, evacuate the people, and to thoroughly search the area for VC and VC supplies and equipment. When this mission is accomplished, the forces withdraw. The name County Fair stems from the techniques developed for processing and occupying the people who have been assembled in an area adjacent to but outside the hamlet proper. Today, this operation employs a combined force of USMC and GVN units. The USMC elements surround and isolate a selected

hamlet during the night. At first light, the GVN elements evacuate the people to a pre-selected assembly area located inside the USMC protective encirclement. The GVN combat forces then thoroughly search the hamlet, and capture or destroy all VC, their supplies and equipment, and their hiding places such as caves and tunnels. Concurrently, GVN specialist forces, assisted by U. S. forces, conduct that portion of the operation for which the name County Fair is given. Here, shelter from the elements is provided, as well as food and drink. A medical sick-call is conducted. The entire population is screened by the national police and counter-intelligence officials in an effort to discover any VC guerrilla or member of the VC infrastructure who has chosen to mingle with the people. Psychological operations are conducted which normally include explanations of the purpose of the operation and the U. S. presence in the area, entertainment in the form of movies and performances by cultural drama teams, and a proportionate amount of propaganda. This operation normally lasts for one to three days.

► GOLDEN FLEECE operations are conducted during the harvest seasons to provide security for the local farmers and their harvested crops. Both GVN and U.S. forces conduct these operations to deny this source of support to the VC, and to demonstrate to the farmers that their government can and will support them.

GVN Revolutionary Development Program

Early in 1966, the GVN implemented a plan designed to provide hamlet security and community development. The newly created Ministry of Revolutionary Development was given the responsibility for the conduct of this Revolutionary Development (RD) Program. Lessons learned during conduct of previous similar programs were considered in development of the current plan and the new ministry was created in an effort to provide close supervision and required support. Reviews of the plan by U. S. agencies produced favorable comments. Some problems and deficiencies only became apparent after the program was launched within the provinces.

Sufficient numbers of trained cadre in the specialist fields such as public health and refugee administration were not available to properly support the program. Military security forces, assigned to protect the selected hamlets were often withdrawn without advance notice, to perform some other needed military function. The budget for support of the RD Program was published as a consolidated document, however funds for support of specialist functions such as public health, education and others remained under the direct control of those particular ministries. As a further complication, the entire country was subjected to several waves of political unrest during the first half of 1966, which resulted in very few decisions being made by high ranking government officials during this period. The RD Program achieved some of its goals in 1966, but the results were nowhere near that which had been hoped for. The Ministry for RD closely monitored the program throughout the year and gave assistance to the provinces when and where it could. During the year a program was initiated by the Ministry for RD to form and train RD Teams which would conduct the RD Program within the hamlets. In the fall a revised RD plan was issued which corrected some of the earlier deficiencies.

The current plan eliminates many of the pitfalls discovered during conduct of the RD programs for 1966 and 1967. The basic element of the RD Program is the team. This team, if properly trained, can accomplish its mission within the hamlet to which it has been assigned. The GVN has assigned the mission of providing continuous security for the hamlets, within which the RD teams are employed, to the regular army forces.

Considering these improvements, it appears that the chances for successful conduct of the RD program this year are better than ever.

In January of last year, all U. S. Government civilian organizations and agencies in Vietnam became an integral part of the newly formed Office of Civil Operations (OCO), formed for the purpose of insuring continuous coordination of the several U. S. Government civilian programs being conducted in support of the GVN RD program.

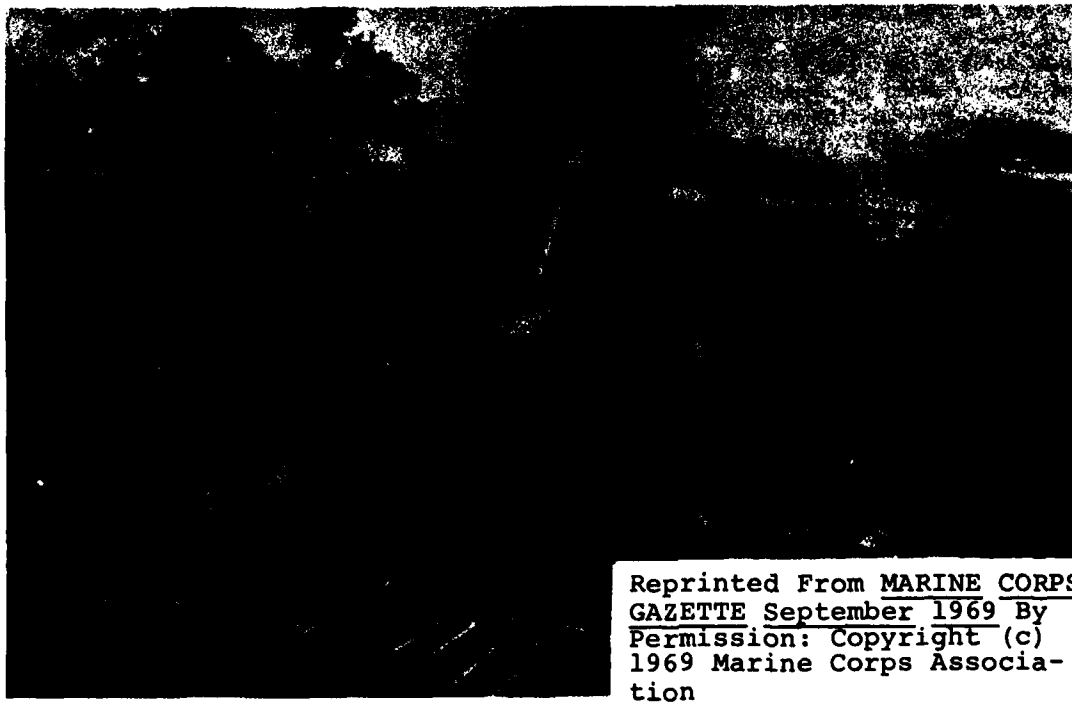
As a further step toward improving support for the GVN Revolutionary Development Program, all U. S. civilian and military resources which directly support the RD Program were integrated and the Office of Civil Operations and Revolutionary Development Support (CORDS) was established in May, 1967. This single manager concept, under the direct control of the Commander, U. S. Military Assistance Command Vietnam, insures close coordination of the RD support activities of all U. S. civilian (OCO) efforts, as well as the military efforts of the Military Assistance Advisory Group and the military field forces. Regional, provincial and district CORDS organizations are patterned after the national-level organization.

Gaining the support of the people for their legally constituted government has become a major objective in this war—perhaps *the* major objective. Tactics and techniques for achieving this goal are still being developed. The military threat cannot be ignored, but neither can we ignore the more subtle threat of the VC guerrilla and the VC infrastructure. The civic action programs conducted by the Free World Military Assistance Forces and Revolutionary Development Program conducted by the GVN are proving their merit in the war for the support of the people. USMC

FIRE SUPPORT BASE DEVELOPMENT

By Maj Robert V. Nicoli

Built by engineers, defended by the infantry and manned by artillery, the fire support base is a successful example of Marine Corps flexibility and response.



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Maj Nicoli, serving a second tour in Vietnam, is operations officer, 3dEngBn. He commanded a company there in 1965. He graduated from Stonehill College prior to being commissioned via OCS program in 1958. He reports to Hq U.S. Forces, Japan in November.

THROUGHOUT its history, the United States Marine Corps has sustained a record of achievement and innovation which has cast it in the enviable role of the most effective military force known to our country.

In Vietnam the Marine Corps' ability to innovate—to meet the needs of the moment—were again tested. During the latter part of the summer of 1968 the 3d Marine Division, commanded by MajGen Raymond G. Davis, introduced the fire support base concept in northern I Corps. The Marines found themselves operating in mountains, swamps, forests and jungles—terrain not conducive to fixed lines of communications and mechanical means of transportation other than the helicopter. A concept of operations involving fast-moving, far-ranging units was necessary. A new method of providing fire support to these units was required and the fire support base concept was introduced into northern I Corps.

Very basically, a fire support base is a rapidly constructed artillery position defended by a minimum of infantry. The infantry and tactical elements operate within the protective fan of the artillery, and as presently applied in the 3d Marine Division, the fire support bases themselves offer overlapping artillery support to each other and protection for several landing zones. At the present time there are a rapidly increasing number of fire support bases strategically located throughout western I Corps.

The tactical requirement for this innovation is indeed a very sound one.

Planning and Development of Fire Support Bases

The type of warfare in which we are presently engaged in Vietnam necessitates rapid response to any action by the enemy. If artillery were to be located in fixed positions in rear areas, our infantry forces would be deprived the benefit of this support. By utilizing the fire support base concept we are able to achieve maneuverability or mobility along with firepower. In addition, the ability of artillery forces to displace and conduct operations throughout the western I Corps area has made area saturation by artillery a reality.

As soon as the tactical scheme of maneuver indicates a need for a fire support base, there are certain pre-D-Day requirements which must be accomplished. It is mandatory that close coordination and cooperation be established at the earliest possible time between the engineer commander, the artillery commander and the infantry commander.

The first things to be concluded by the engineer commander are:

- the time and place of the operation;
- the size of the area to be cleared;
- the size and composition of the unit which will occupy the area;
- a study of maps and any available aerial photographs of the area;
- a study of all reconnaissance information obtained from previous inserts.

Once these sources of information have been thoroughly exhausted, the next step is to arrange for a visual reconnaissance, by air, of the proposed site. This visual reconnaissance is normally conducted by the engineer officer, the infantry and artillery commanders and the air officer. The importance of the visual reconnaissance cannot be overemphasized. A complete visual reconnaissance by the engineer commander is the only effective means for adequately planning personnel, equipment and demolitions requirements.

Over the past eight months, the 3d Engineer Battalion has found that on those occasions when engineering difficulties or problems arise during the construction of a fire support base, these problems can almost always be attributed to the fact that the engineer commander has not been afforded the opportunity to conduct a visual reconnaissance. During the conduct of the visual reconnaissance the engineer officer will attempt to determine:

- the suitability of the site with regard to economy of engineer effort as compared to other tactically suitable sites;
- the area of plane surfaces suitable for helicopter landing zones;
- the extent of foliage, brush, and undergrowth;
- the approximate number and average diameter of trees.

FIRE SUPPORT BASE

With the information gained from the visual reconnaissance, the engineer officer is able to make intelligent and beneficial liaison with both the artillery and infantry commanders. By contacting the artillery commander who will occupy the position, the engineer officer now will be able to determine:

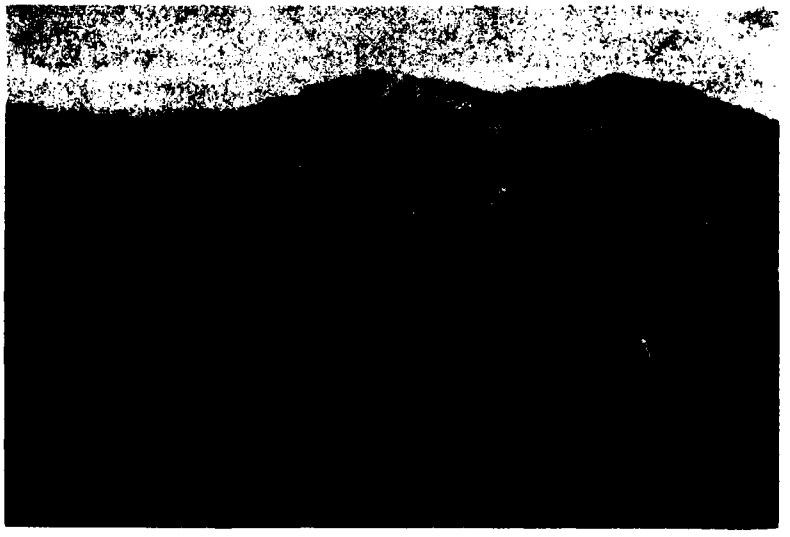
- the approximate location and size of gun positions;
- the approximate size and location of ammunition storage areas;
- bunker requirements.

By consulting with the infantry commander, the engineer officer will insure that he is familiar with the tactical movement of personnel and equipment on and around the fire support base site itself. There is a considerable amount of activity on a fire support base during the early phases of development. It is the obligation of the engineer officer to advise the infantry commander that excessive numbers of personnel and equipment moving about on a fire support base during the early phases of development only hinder and delay demolitions operations. This one area constituted quite a problem in the 3d Marine Division during the first few months of the fire support base program, and it was a problem on the fire support bases first developed in the 1st Marine Division TAOR. Experience indicates that the reason for this problem stems from an overeagerness on the part of the infantry for speed during the operation. When infantry commanders of the 3d Marine Division were indoctrinated regarding the engineer requirements on a fire support base, this particular problem disappeared rapidly. A related point and a possible problem area is the matter of resupply once the development of the fire support base begins. At this point in his planning, the engineer officer should insure effective liaison with the S-4 of the unit supported. Particular emphasis should be placed on the matter of identifying engineer resupply materials and establishing priorities for these materials. All too often, valuable time is lost when the wrong item is delivered in response to a resupply request. This will only be avoided if the engineer officer insures that the S-4 of the supported unit properly identifies and serializes "on call" materials located at the staging line at the logistical support area. This is a very simple matter in accordance with good logistical support procedure, but it is too often overlooked, resulting in valuable time lost.

At this time consideration should also be given to the matter of demolitions materials and engineer tools required for the project. With regard to demolitions materials, the first thing that must be realized is that the variance in the size and quantity of growth on the specific site will determine the amounts and types of class V materials to be used.

The first task which must be completed on any fire support base project is the clearing of an area suitable to take both internal and external helicopter lifts. This is the task with which the engineer personnel will be most involved during the first few hours of the operation. The 3d Engineer Battalion, for planning purposes, has established an allowance of demolitions to be lifted into the site immediately for the purposes of developing the landing zone. These quantities have generally been confirmed by actual operations over the past eight months:

- 1000 pounds of composition C-4;
- 10 cases of bangalore torpedoes;



Case 450 tractor, lifted by helicopter, prepares the landing zone.

- 5000 feet of detonating cord;
- 500 feet of time fuse;
- 300 non-electric blasting caps;
- 100 M-60 fuse lighters.

Along with this allowance of demolitions, specific items of engineer equipment and hand tools are required to be used in clearing the area of trees and brush.

Modified versions of both the pioneer tool kit, engineer squad and the infantry tool kit are also among the initial items lifted in with the demolitions. The specific items from these tool kits which are of most value in fire support base development are the axes, brush hooks, machetes, shovels, post hole diggers and log carriers. The gasoline engine-driven chain saw rounds out the list of those items initially lifted into the site. It is normal to plan to have from three to six chain saws.

The final area to be considered in the pre-D-Day planning will be the personnel requirement. Experience indicates that from one to two squads of engineer personnel provide sufficient manpower to complete the mission.

Prior to D-Day, the responsible tactical commander will insure that the proposed site receives adequate preparation fires. The engineer officer should advise the infantry commander that *excessive* preparation fire will only further increase the difficulty involved in clearing underbrush as it results in an entanglement of trees and brush. Only as much preparation fire as is absolutely necessary should be called in on the proposed site.

Engineer personnel, with their initial equipment and supplies, are inserted into the area by internal lift, if possible, or by rappelling, with supplies being lifted in by cargo net in an external load. Once engineers and equipment, with a small security force, are on the proposed site, clearing operations begin immediately.

All underbrush, foliage and dense growth will be cleared immediately upon entry into the designated area. Such clearing is given first priority as it will make possible ease of movement and the placement of demolitions charges. Underbrush and vegetation are normally cleared through a combination of hand tools and demolitions. The use of demolitions in this situation is quite varied, and limited only by the imagination of the user. Many varied techniques have been developed, and the use of some of these techniques at times necessitates modifications to the initial allowance of demolitions mentioned earlier. In addition to the use of bangalore torpedoes, some other methods found successful in clearing underbrush are:

- M-58 line charges;
- shaped charges;
- barbed wire mines.

It should be noted that the M-58 line charge, in particular, has proven to be very effective. Used without the rocket assembly and primed non-electrically, it is extremely effective in clearing away light brush and debris. Brush hooks, axes, machetes and chain saws are used in conjunction with demolitions for clearing operations. Once ease of movement is obtained, engineer personnel commence the cutting of larger trees.

Experience has proven that the gasoline engine-driven chain saw does not adequately cut the larger, extremely hard teak and mahogany trees native to the northern and western I Corps area. The most suitable method for felling trees is through the use of demolitions, primarily C-4 or TNT if C-4 is not available. Different types of timber in various localities require varying amounts of explosives. For external untamped

Dense underbrush has been cleared with hand tools and demolitions.

charges, the standard timber cutting formula of $P = \frac{D^2}{40}$ has generally proved to be ineffective in the 3d Marine Division TAOR. The results of this formula must usually be increased from 20 to 50 percent to obtain the desired results. It is recommended that the engineer officer conduct several test shots, utilizing the basic formula to determine the specific amount of explosives required for a specific timber.

Trees can be removed by utilizing the external untamped method of placing charges, after cutting a notch in the tree with the chain saw, or by blasting, utilizing tamped charges placed in the ground at the root system. Once again, the use of demolitions for this task is limited only by the imagination of the user. Some other methods proved effective in removing timbers are:

- shaped charges placed against and perpendicular to the tree;
- counter force (or ear muff) charges in which half of the charge is placed on each side of the timber directly opposite each other (for timbers of less than 4 feet in diameter);
- strip charges placed completely around the timber and close to ground level.

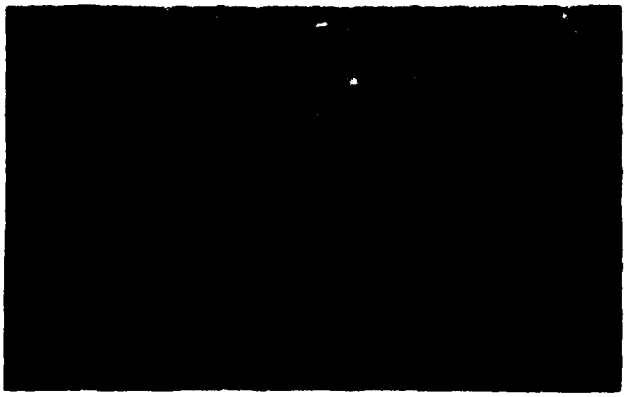
Trees are normally cut in groups of 10 to 15 utilizing a non-electric dual primed firing system and ring main to avoid the possibility of misfire. As trees are felled they are cleared from the area immediately, sectionalizing them if necessary, and using a labor force of infantry personnel if available. These timbers should not simply be discarded, but selected ones set aside for such use as bunker covers during the later development of the fire support base.

It is during this phase of development that the engineer officer must pay particular attention to the requirements for helicopter landing zones. In order to permit the most effective use of helicopters for resupply, the engineer officer must insure that the ground approach to, and exits from the landing zone are at least as wide as two rotor diameters. These approaches must remain clear of communications wire and all other obstacles. There should also be an area clear of high obstructions (30 feet or higher) extending at least 150 feet in the direction of the approach and exit paths. This distance gives helicopters an opportunity to gain forward velocity before they must commence climbing. In order to insure that these glide path requirements are met, the 3d Engineer Battalion requires all platoon leaders and platoon sergeants to be particularly familiar with the use of the clinometer or topographic hand level, and to use this instrument during fire support base construction. The engineer officer must also insure that the site of the landing zone itself is large enough to allow clearance for rotor blades, and also that there are no stumps or growth on the site exceeding one foot in height. I might add here that it is the policy in the 3d Engineer Battalion to cut all trees in the area of the landing zone as close to ground level as possible.

Once the initial landing zone is established, additional engineer equipment and demolitions are lifted in to facilitate the development of gun pits and ammunition berms. The additional demolitions are usually large amounts of shaped charges (40 or 15 lb), cratering charges, and composition C-4, and the additional equipment is in the form of the Case 450 heliliftable tractor and the Case 580 heliliftable tractor with back hoe attachment.

The standard gun pit requires an approximate 30-foot diameter hole with a three-foot high berm.

Finished landing zone is ready to receive resupply helicopter.



Engineers attach plastic explosive charge to base of a tree.

With a 30-foot diameter hole it is possible to achieve 360 degree coverage by either 105mm or 155mm howitzers. In a pit this size, when turning a 155mm howitzer, some movement of the gun back and forth is necessary in order to turn it and still keep it in the center of the parapet. For this reason, some artillery commanders have required parapets of up to 40 to 60 feet in diameter for 155mm howitzers. Of course, this is dependent on the amount of space available on the site itself.

The gun pits are constructed through the combined use of demolitions, hand tools and the Case 450 heliftable tractor (bulldozer). Whether the emphasis will be on demolitions or engineer equipment is solely dependent upon the composition of the soil at the project site. In areas in which the soil is highly compacted, rocky or difficult to penetrate, it is desirable to prepare the area for the Case 450 tractor through the use of demolitions. One technique which has proved very effective is to place four 40-pound or 15-pound shaped charges 15 feet apart in a square formation and one in the center. These charges are dual primed with a non-electric firing system and detonated simultaneously from a ring main. After the detonation, a 40-pound ammonium nitrate cratering charge or 20 pounds or less of C-4 or TNT, depending upon soil composition, is placed in each resulting hole and tamped with earth. The cratering charges are also primed non-electrically and detonated at the same time. The resulting detonation will produce a hole approximately 30 feet in diameter and three to four feet in depth.

The Case 450 tractor (bulldozer) is then used to clear the area of loose earth and shape the pit to the desired configuration.

In areas in which the soil is not highly compacted or very rocky, the Case 450 tractor can be employed without the prior use of demolitions to prepare the area.

Together with the construction of gun pits, ammunition berms are prepared. The configuration of the ammunition berms will vary dependent upon the desires of the artillery commander and the amount of space available on the fire support base. The Case 580 helilliftable rubber-tired tractor with back hoe attachment is ideally suited to the construction of ammunition berms. The 580 tractor is normally helilifted into the area following the 450 tractor.

At this point in the development of the fire support base, the first guns and additional artillery personnel begin to arrive by helicopter. Guns are placed in the parapets on a pad, usually constructed of M8A1 matting, and the gun crews set about the work of preparing themselves and their equipment to accept fire missions.

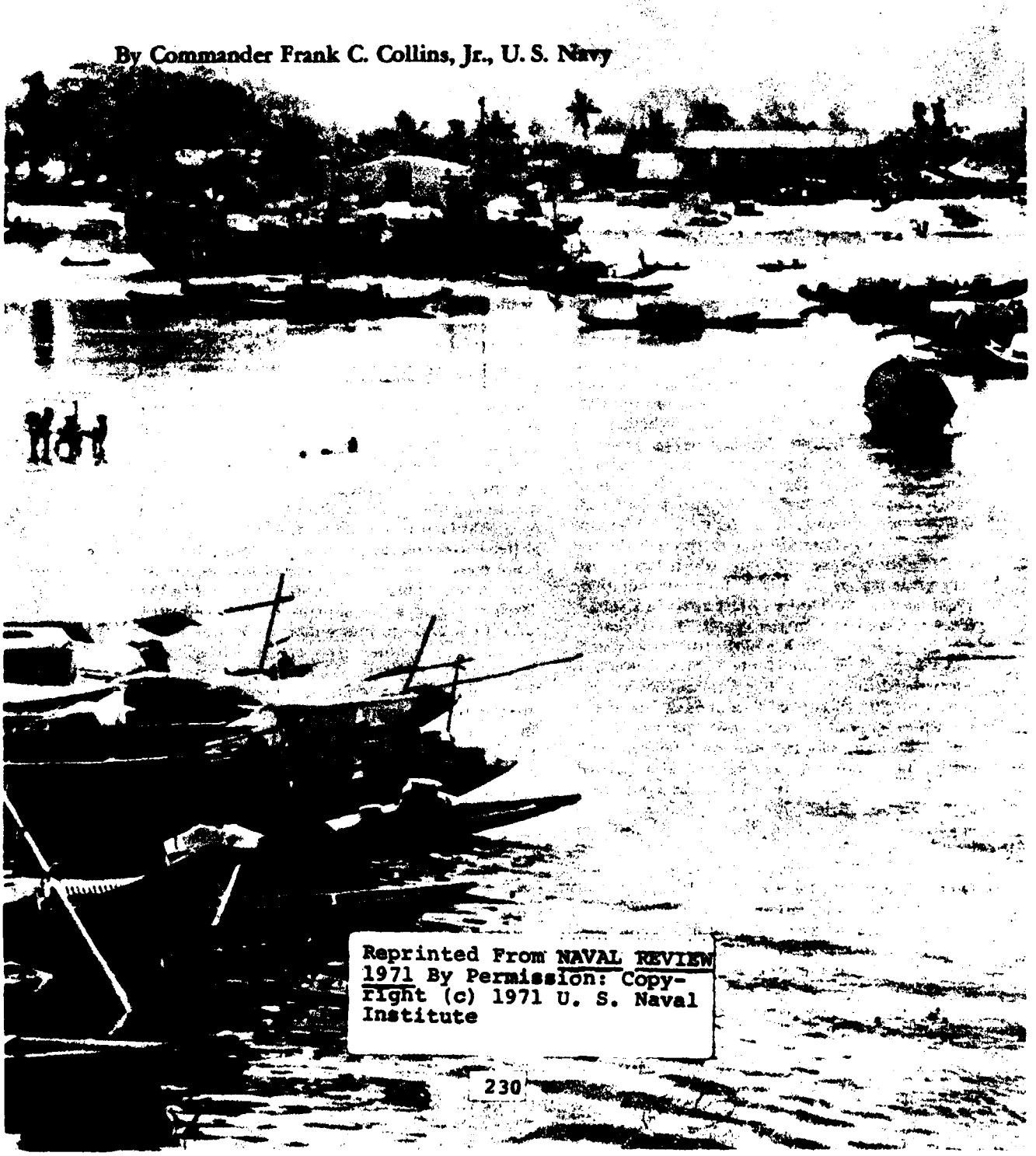
We must recognize that at this point activity on the fire support base is greatly accelerated. The engineers continue to develop the position by constructing additional parapets, ammunition berms and bunkers if necessary. The command element of the artillery battery is busily setting in their fire direction center, and guns and ammunition begin to arrive in fairly rapid succession. The engineer functions previously described are repeated until the desired number of parapets, ammunition berms and bunkers are developed. The engineer participation in the development of the fire support base is fast coming to an end, and engineer personnel and equipment can now be systematically withdrawn and returned to their respective company areas for rehabilitation and preparation for the next commitment.

Normally a small detachment of engineers does remain on the fire support base to assist in further developing the position through the installation of airfield matting on the landing zones, additional tree cutting on the periphery to ensure that fire is not masked, and various tasks of this nature. As you can see, a great team effort is required in the development of a fire support base, all directed toward one end—to insure that the Marine infantry receives the utmost support in delivering its deathblow to the enemy. The engineer contribution to this effort is of utmost importance. To be effective the fire support base must be completed on a strict time schedule. The efficiency and proficiency of the engineer effort makes compliance with this time schedule a reality.

Secured by the infantry, built by the engineers and manned by the artillery, the fire support base stands ready to support the infantry as it expands its operations into enemy territory. The fire support base concept has expanded the war to all parts of South Vietnam, depriving the enemy of staging areas and infiltration routes. It allows the infantry to move throughout the I Corps area while retaining the protective fires of friendly artillery. It is a team concept embodying mutually supporting forces within the Marine Corps, and the newest example of Marine Corps flexibility and response. USMC

Maritime Support of the Campaign in I Corps

By Commander Frank C. Collins, Jr., U. S. Navy



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In the I Corps area, the Marine Corps continued to depend on its natural element—their legendary Captain Jimmie Bones said it best: ". . . water settles everything, and that's what our name means"—as, with road and railroads blocked, logistic support had to come by sea. In the picture on the preceding pages, the old YFU-61 begins the return voyage down the Perfume River from Hue to Tan My and back to Da Nang as several other YFUs and LCUs off-load at the ramp on the far side of the river.

The opinion, "From a logistics standpoint, this is by far the *best* and *most* managed war in which we have ever been involved," voiced by one of our leading flag officers involved in logistics, may not be shared by everyone. But it is not likely to be disputed by any of the some one thousand officers and forty thousand bluejackets who have served in the largest Navy overseas shore command, the Naval Support Activity, Da Nang.

The establishment and functioning of the Naval Support Activity, Da Nang, is a unique chapter in the U. S. Navy's proud history. The origin of NavSuppAct (or NSA), Da Nang, is well treated in Captain K. P. Huff's article, published in the 1968 issue of the *Naval Review*.[1] I shall not attempt to improve on that portion of NSA's history; rather, this article will attempt to highlight the accomplishments and events which make this logistic effort worth remembering. NSA Da Nang could well serve as a model for navy logisticians in future wars fought in terrain where shallow waterways are the preeminent lines of communication.

Administrative Relationships

During its five-year history, NSA Da Nang was commanded by one captain and five flag officers. The command relationship under which these officers operated was complex, dictated by the rather intricate command structure under which the war in Vietnam was prosecuted. Since Commander Naval Forces Vietnam was the naval component commander in Vietnam, ComNavSuppAct, Da Nang, reported to him as an operational subordinate. ComNavForV was also ComNavSuppAct, Da Nang's, link in the chain of command with the Commander, U. S. Military Advisory Command, Vietnam.

In turn, the Da Nang support activity commander served as the NavForV representative for real estate matters in I Corps. Because ComNavSuppAct, Da Nang, was created to support the Third Marine Amphibious Force (III MAF), there was perforce a close relationship with the Commanding General, III MAF.

A good working relationship with the Vietnamese Joint General Staff in I Corps was also maintained though, except in real estate matters, the Admiral normally worked through III MAF headquarters when dealing with the Vietnamese I Corps commander. During 1969 with the implementation of the Accelerated Turnover To Vietnam (ACTOV) program, and as Vietnamization of the war began in earnest, this command relationship grew even more important.

A contemporary twist on the Golden Rule stipulates that "He who has the gold, *rules*." This brings into focus the final link in the rather extensive command relationship: the Commander of the Service Force, U. S. Pacific Fleet. As the Commander-in-Chief, U. S. Pacific Fleet's principal logistic agent, ComServPac controlled NSA Da Nang's purse strings. Considering the size of Da Nang's budget, it is easy to understand that the relationship with ServPac was an important one.

Internal Organization

If NavSuppAct's external command relationships appear complex, its infrastructure was no simpler. Beginning with an amphibious command, Captain Huff's Landing Ship Flotilla One staff (Task Group 76.4) was augmented as necessary and given the job of managing logistic support for the Marines at Da Nang. This forerunner of NavSuppAct, Da Nang, was basically developed along the standard naval staff organization. However, rather than having the normal five or six divisions, plus special assistants, Rear Admiral Thomas Weschler, the first flag officer to command Da Nang, found it necessary to expand this to eleven divisions and special assistants. These department heads included public works, administration, operations and plans, medical, dental, communications, supply and fiscal, industrial relations (a civilian), enlisted personnel (commanding officer, Camp Tien Sha), first lieutenant (under whom came physical security and the fire marshal), and repair.

Special assistants included the legal officer, chaplain, public affairs officer, and civic action officer. In 1966, when Chu Lai was established, an additional link was added to the already broad scope of management con-

[1] "Building the Advanced Base at Da Nang" by Captain K. P. Huff, U. S. Naval Reserve, in *Naval Review 1968*.

trol. The Officer-in-Charge Naval Support Activity Department (or NSAD) Chu Lai, was not a department head per se as he reported directly to the assistant chief-of-staff for operations and plans. But essentially he acted with the same powers since he had direct access to the Chief of Staff. Reporting to Admiral Weschler, when the Admiral was acting as Naval Forces Vietnam Representative (NavForVRep), was the base development officer, a senior captain of the Civil Engineer Corps. Since little organizational precedent existed for this particular mission, staff organization was an ad hoc affair in the beginning.

By 1968, tasks had sorted themselves out well enough to enable the Commander to create a more conventional Navy shore staff organization. Department heads were redesignated assistant chiefs of staff. The staff consisted of ACOS for administration, security and intelligence, operations, supply and fiscal, communications, public works, and plans. Special assistants included the repair officer, industrial relations officer, senior medical officer, dental officer, commanding officer enlisted personnel, base development officer, staff judge advocate, and the officers in charge of Chu Lai, Phu Bai-Hue, Tan My, Dong Ha-Cua Viet, and Sa Huynh.

Dynamic Growth

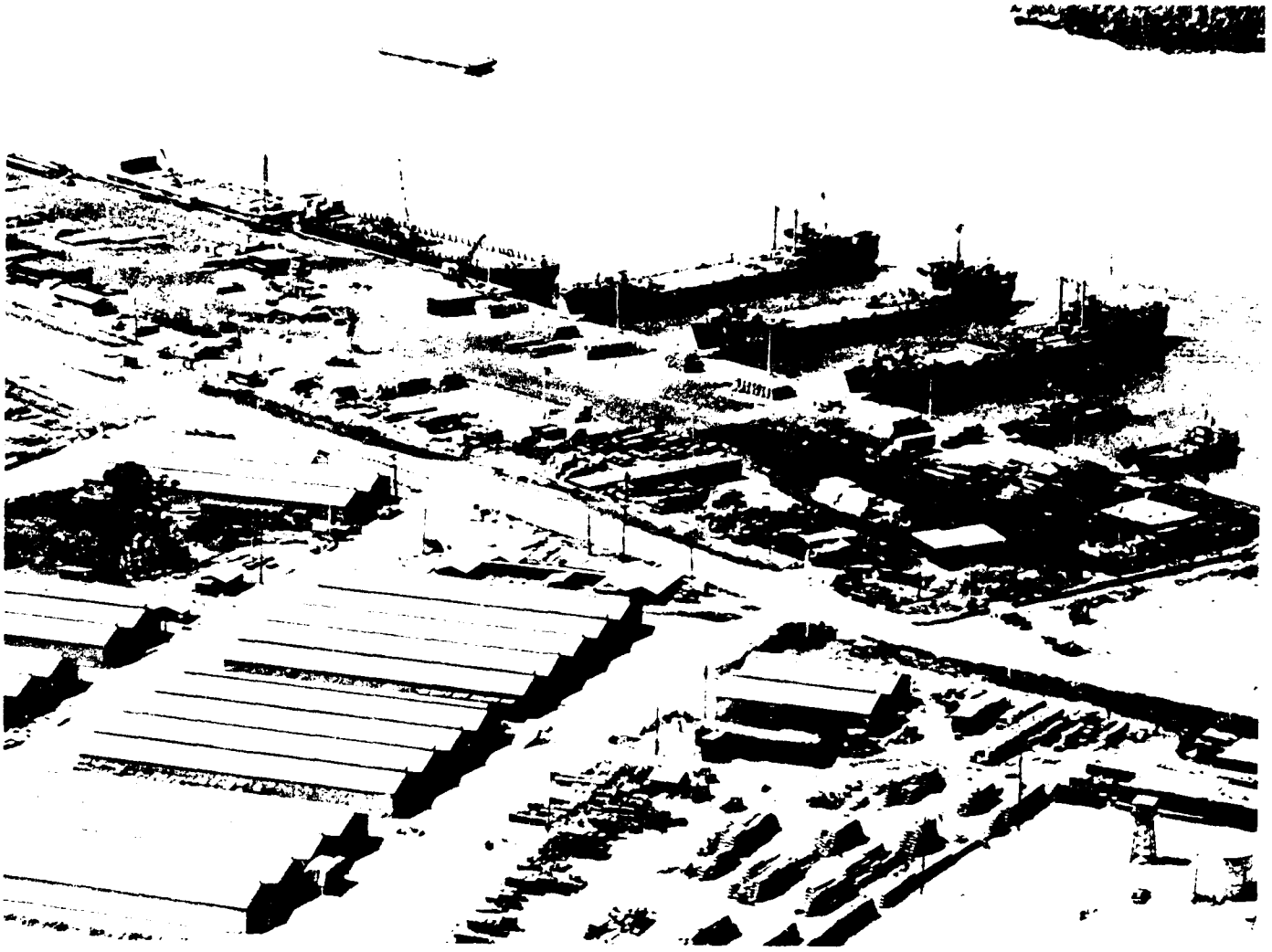
From its modest beginning on 24 April 1965, until Rear Admiral R. E. (Rojo) Adamson hauled down his flag on 30 June 1970, the Naval Support Activity, Da Nang, was a continuing example of dynamic growth and accomplishment. Established by the Navy of necessity rather than by choice, after the U. S. Army Pacific (USARPAC) confirmed it lacked the resources needed to operate in Da Nang, in addition to all the other ports and beaches in South Vietnam, NavSuppAct Da Nang began with a Marine landing over Red Beach in Da Nang harbor in 1965. It developed into a highly complex port with cargo clearance and storage facilities in Da Nang, and thriving cargo operations in Chu Lai, Hue-Tan My, Cua Viet-Dong Ha, Sa Huynh, and Quang Tri; additionally, it gave limited assistance in a logistics over the shore (LOTS) operation at Duc Pho. It grew from the handful of officers and men who began the original effort under Captain Huff's able command, to approximately 450 officers and 10,000 bluejackets under Rear Admiral E. P. Bonner in 1969. Add to these figures a civilian work force of 69 U. S. and 5,888 local nationals, and then consider the civilian contractors, employees who, in November 1969, amounted to 725 local nationals and 513 third country nationals (mostly Korean) in the Korean Express cargo handing contract, and 1,251 local and 2,905 third country nationals plus 123 U. S. civilians in the Philco-Ford maintenance contract, and you get some idea of the scope of this mammoth Navy industrial complex.

The number of Support Activity people grew with support requirements. From its modest beginning at Red Beach in Da Nang, support facilities grew to what was then an unimagined extent. Da Nang's early seaside facilities have been comprehensively described in Captain Huff's article, so only the "outports" which substantially came into their own after he left will be considered here.

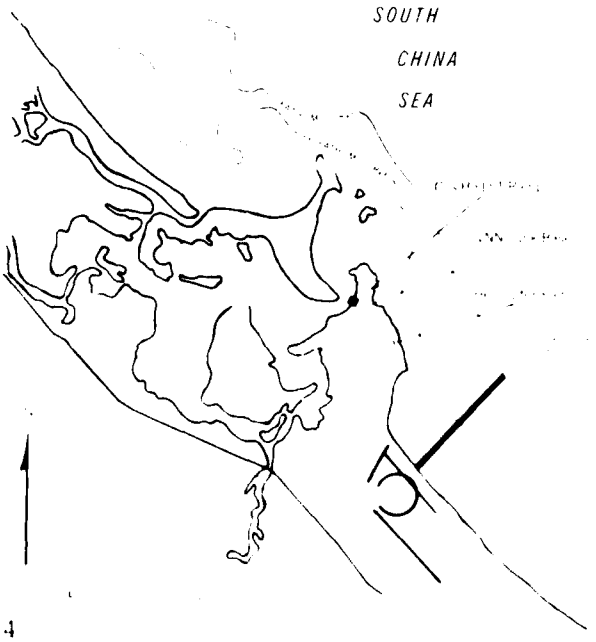
Sixty miles to the south, the Naval Support Activity Detachment at Chu Lai became a microcosm of the Da Nang operation. While never able to accommodate deep draft vessels, Chu Lai's LST ramps became well developed and were expanded to accommodate six of the 542 or 1156 classes of LST. Navigational aids in the form of buoys and ranges were considerably improved, as was the depth of the channel which initially afforded only marginal conditions to LST skippers. The hard-topped ramps made it easier for vehicles to unload cargo and the all-weather road complex allowed rapid port clearance. With the major portion of Marine Air Wing One stationed at Chu Lai, fuel was a most important consideration. Compared with the initial "asault bulk stowage" in 10,000-gallon neopreme bladders, by early 1967 Chu Lai boasted a modern and commodious rigid-wall storage tank farm which was umbilically connected to its sea-borne source by bottom-laid sea load lines. While these lines were inoperative a significant portion of the time during the monsoon season, NSA Da Nang managed to keep up with fuel requirements, though at times it was touch and go, and required innovations such as sending a partially loaded T-2 tanker or one of Da Nang's YOGs into Cus Ho Ramp to pump cargo directly into Marine refuellers for shuttle to the flight line.

Hue-Tan My Facilities

The NSAD at Hue-Tan My, 30 miles north of Da Nang, began with an LCU ramp near the University of Hue in the downtown area and a bladder fuel farm at the coastal Vietnamese recreation area of Tan My, near the Col Co causeway, in late spring 1966. Initially all cargo had to be cleared as soon as discharged at Hue, since there were no facilities for staging or security. Fuel was delivered to the assault stowage containers by way of a four-inch amphibious assault hose, but this regularly parted or became tangled in its marker buoy moorings. All these shortcomings were overcome by the building of the LST facility (four LST ramps) at Tan My, the installation of the overland six-inch pipeline from Tan My to Phu Bai and Quang Tri, and completion of rigid stowage tank facilities with a combined capacity of 5.7 million gallons.



The air base at Cha Lai, which came to house the major portion of Marine Air Wing One, was operating before there was a harbor. And, because the harbor has never been able to accommodate deep draft vessels, the base is supported by LCUs and LSTs—some of the latter are manned by Navy crews and some by Japanese and Korean civilian seamen.



Dong Ha Facility Created

Operations Hastings and Prairie in the summer of 1966 marked the beginning of major operations by the U. S. Marines in Northern I Corps Tactical Zone (ICTZ). From battalion to regimental to divisional size, tactical activity in this area adjacent to the Demilitarized Zone (DMZ) grew steadily, requiring complementary growth in support from Da Nang. At first, tactical headquarters for this new offensive was centered in Dong Ha, where the Marine combat base was established. Dong Ha differed from Da Nang in that it was located inland. It differed from Chu Lai because of its lack of a sufficiently large waterway to accommodate an LST, and from Tan My because of its significant distance from Da Nang. It was about 90 miles by open sea from Da Nang to the mouth of the Cua Viet River,[2] which was destined to become the lifeline for the Dong Ha combat bases. Discovering that an LCU could penetrate the twisting, silt-filled waterway, NSA committed itself to relieve the overworked C-130s which skillful Marine pilots had flown in endless succession to keep Operation Hastings supported.

Occasionally LCM-8s were pressed into service on the open sea convoy leg of this supply run, though they were inadequate to cope with the seas when the monsoon season set in. The ramp at Dong Ha, adjacent to the concrete bridge which continues the Vietnamese Route One north across the Cua Viet River, was about three-fourths of a mile from the sprawling base and air field, from which the Third Marine Division operated. Originally graded to serve as a climb-out ramp for LARCs, which were used to unload anchored LCUs or YFUs,[3] the ramp was eventually widened to accommodate up to six LCUs and boasted a sizeable hard surfaced area which was illuminated at night.

Cua Viet LST Ramp Conceived

During the fall of 1966, it became apparent that the LCU chain from Da Nang was going to be inadequate to keep the Marines at Dong Ha supplied. The transit, which took the older boats from 10 to 12 hours in good weather in convoy, lengthened to 24 or even 36 hours when the northeast monsoon created 10–16 foot swells. There just weren't enough LCUs in Da Nang to do the job. Pressed by Lieutenant General L. E. Walt, Commanding General of III MAF, Rear Admiral Weschler decided that if ammo by the LCU load was not enough to feed the Marines' guns, the Navy would have to move it in LSTs. LSTs could not navigate the Song Thach Han and Song Hieu Giang (collectively referred to as the Cua Viet), but it appeared feasible to dredge the bar at the mouth of the Cua Viet to permit the entry of LSTs. The latter then could discharge their cargo for transhipment up the final seven miles to the Dong Ha ramp by LCU or LCM-8. The U. S. Army Corps of Engineers civilian-manned hopper dredge *Hyde* was brought up from the Delta to finish the 15-foot deep channel[4] which was started by the small Canadian suction dredge *Helbar* and her predecessor, a drag line run from a DeLong pier. Between them, the *Helbar* and the drag line succeeded in scratching out a channel through the bar to permit entry of the hopper dredge. Opened 15 March 1967, NSAD Cua Viet grew to a sizeable organization which, when the occasion demanded, worked around the clock unloading the beached LSTs. River operations, because of hostile fire and lack of navigational aids, ceased at dusk. Air cover was effective during the day so that vessels could sail up to Dong Ha in comparative safety. A four-inch assault line was replaced by a six-inch sea load line, and eventually, when this line became inoperative because of weather,[5] the AOGs which furnished the fuel flow would steam into the Cua Viet estuary, where there was some protection from the weather, and pump directly to the beach bladder.

As action in northern ICTZ became more intensive, the Song Thach Han was reconnoitered by Commander Hal Barker, plans officer for Rear Admiral Paul Lacy who had succeeded Admiral Weschler. The establishment of a supply line to Quang Tri appeared feasible, and in 1968 it became a reality.

Sa Huynh Established

Late in 1966, U. S. MACV became concerned by the relative sanctuary which the Viet Cong and North Vietnamese forces enjoyed in the southern portion of ICTZ. The First and Third Marine divisions were stretched as thin as they could be and still permit them to accomplish their mission to the north, so it was decided to bring in a provisional Army division from one of the southern Corps areas. Duc Pho, in Quang Ngai Province approximately 100 miles south of Da Nang, was chosen as the center of this new area of operations. Logistic requirements to the north initially precluded NSA from supporting this operation other than by providing facilities to land cargo over the beach. A pontoon causeway, reefer barge, and assault

[2] In Vietnam the Cua Viet River is called the Hieu Giang, while the American version derives its use from the name of the river mouth (Cua Viet), literally South Mouth.

[3] An LCU and a YFU are basically the same craft with two different designations for two uses. The former stands for Landing Craft Utility, the latter stands for Harbor Utility Craft. In general, LCUs, when old, become YFUs. LARC is the Army acronym for Amphibious Resupply Cargo Lighter, which comes in 5- and 15-ton sizes. The Army owns most of the LARCs in the U. S. inventory.

[4] Now 18- to 20-feet deep.

[5] These fuel lines frequently broke during the Northeast Monsoon. Wave and surf action tangled hoses with buoy moorings and ripped them apart.

pipeline were installed to assist the Army to become established. Later, in 1967-68, as the Army presence in southern I Corps became more extensive, NSA Da Nang established Naval Support Activity Detachment, Sa Huynh. Since Sa Huynh was at the southern boundary of ICTZ, about 65 miles south of Chu Lai, the Navy could now boast detachments from border to border of I Corps.

A lesser known, but nevertheless important, operation by NSA was the operation of the Liberty Road Ferry. This consisted of an LCM-8, which operated as a ferry across the Song Thu Bon to the south of Da Nang keeping the important Da Nang to An Hoa overland Line of Communication (LOC) open. Getting the LCM-8-860 up the shallow Song Thu Bon from the South China Sea in mid-1966 was a hazardous and exciting transit protected by the Marines in the area. In February 1967 the Seabees completed a bridge and the ferry was no longer needed.

I Corps Military Expansion

From the small force of Marines which landed in the spring of 1965, the U. S. military population grew to more than 205 thousand men in August 1968. These troops depended on the Naval Support Activity for everything from ordnance to soft drinks and beer, from concertina wire and sand bags to skivvies and boot daubing.

In measuring the NSA's achievements throughout its five-year history, there would probably be as many different views of the priority of accomplishment as there were people making the evaluation. Nevertheless, few would deny that the movement of cargo comes at the top of the list. Following close behind would be the development of ports and of land lines of communication; the construction and maintenance of facilities; and the development of a fuel network sufficient to provide fuel for jet aircraft, for trucks and equipment, and for the hundreds of propeller aircraft which supported the forces in ICTZ. Finally, the building of medical facilities, the salvage of ships and craft, and the conducting of civic action programs rank as important activities.

Facilities in Da Nang continued to expand and improve as the stateside pipeline began to respond to requirements. The deep draft Thong Nhat piers (sometimes called the Allied piers) resembled a busy stateside port, as staging areas were enlarged and additional port clearance equipment became available. Increased LST tonnage was handled at the Tien Sha, Bridge, Museum, and Ferry ramp cargo facilities. Ashore, in addition to the accomplishments so well described in Captain Charles J. Merdinger's[6] comprehensive article on the Seabees' phenomenal work, the scope of NSA logistics widened to include a milk plant operated by Foremost Dairy Products, which in addition to milk, provided all U. S. servicemen in I Corps with cottage cheese and ice cream. Common User Land Transportation (CULT) plus vehicle and machinery maintenance, utility provision, construction, and road building functions kept the Navy and contractors well occupied. Bulk storage, covered storage, and refrigerated storage were expanded from a few thousand square feet to acres.

Perhaps a better feeling for the magnitude of the expansion can be achieved when one considers that in Da Nang the supply depot space increased from approximately 33 thousand square feet of covered storage in 1965 to over 900 thousand square feet in 1969, from none to over 500 thousand cubic feet of refrigerated storage, and from very little to over two million, seven hundred thousand square feet of open storage. Package and bulk fuel storage expanded from about 40 thousand gallons to accommodate more than 50 million gallons of JP-4, aviation, diesel, and motor vehicle fuel.

Another clue to the scope of industrial activity is the size of the budget, which grew from approximately 41 million dollars in FY 1967 to 102 million dollars in FY 1969. Over half of this operating and maintenance budget was used in the mammoth public works program sponsored by NSA Da Nang.

Never did a single Navy industrial complex operate as many boats and craft as did NSA Da Nang. Starting in December of 1965, with 12 LCUs or YFUs, 16 LCM-8s, 10 LCM-6s, 2 LCM-3s, and 8 YCs, all of which, save the YCs, were amphibious force assets, the Da Nang navy grew to number over two hundred and fifty craft, which included not only the types mentioned above, but floating cranes, self-propelled water barges, reefer barges, YTLs, YTMs (pulled out of the mothball fleet in mid-1966), YTBs, AFDLs, YRs, LARCs (acquired from the Army), LCPLs, and finally, the new Skilaks (Eskimo for "strange craft"), a commercial coastal cargo vessel designed for the Alaska trade. The Skilaks represented a significant improvement over the LCUs.

By December of 1968, the self-propelled lighterage inventory alone had increased from that enumerated above to 11 Skilaks (each estimated as being worth two and a half LCUs or YFUs), 42 LCUs or YFUs, 46 LCM-8s, and 36 LCM-6s and LCM-3s. It is easy to understand why the Support Activity required the highest density of qualified boat masters of any activity in the Navy during this period. The allotment of cargo hauling and handling machinery also kept pace with the

[6] "Civil Engineers, Seabees, and Bases in Vietnam" by Captain Charles J. Merdinger, Civil Engineer Corps, U.S. Navy, in *Naval Review 1970*.

increased transfer of goods. Material handling equipment and especially the rough-terrain forklifts which Captain Huff spoke of as being difficult to keep in operation owing to an inadequate supply of spare parts, finally achieved an acceptable maintenance level.

Moving Cargo

Captain Huff's group, during the period prior to NSA Da Nang's formal establishment in October of 1965, moved cargo in an amount sufficient to keep the 3rd Marine Expeditionary Force (as it was originally identified) supported. The 35 thousand measurement tons handled at Da Nang in July of 1965 seems modest indeed when compared to nearly 471 thousand measurement tons handled in September of 1969. During the same September, Dong Ha reported over 47 thousand MT, Chu Lai had 86,195 MT, Hue and Tan My received 54,423 MT, and Sa Huynh reported 3,088 MT. The progressive growth of Da Nang's cargo handling capacity can be observed in the following average monthly figures: 135,500 short tons in 1966, 198,300 ST in 1967, 333,300 ST in 1968, followed by a decline in 1969, as the withdrawal began, to 320,400 ST.[7]

The very early calculation of the contemporary need to move a ton of cargo per man per day (if considered in the context of freight terminal men) was significantly exceeded during the last six months of Rear Admiral Adamson's tour in 1970, at which time the average amount of cargo moved per man per day was 3.25 ST.

Initially, all-Navy cargo handling teams were used, because of the scarcity of Vietnamese stevedores. Commander NSA Da Nang had a tight rope to walk in forestalling any accusation of pirating from the inadequate local labor pool. Yet he had to acquire the stevedores to cope with the ever-expanding flow of cargo through the military port of Da Nang. The shortage of labor was met by the twelve-hour workday which each American sailor worked for seven days a week. Two round-the-clock shifts kept cargo moving ashore prior to the formal dedication of the Thong Nhat piers on 15 October 1966 (which was, coincidentally, the first anniversary of NSA Da Nang).

Working ships at the pier, which reduced the double handling that lighterage demanded, was an inestimable boost in cargo handling. Soon many Vietnamese who were not employed by the local commercial port were hired, and their training was accomplished in record time. While the Vietnamese were unable to work the same long day as their American counterparts, their ten-hour day helped the Navy effort at a time when increasing pressure was being brought to bear to reduce, where possible, the manpower drain which NSA Da Nang made on Fleet resources.

To add more manpower, in mid-1966 the Commander of the Naval Support Activity, Da Nang, entered into a contract with the Korean Express Stevedoring Company (KEKN). On 19 August 1966, Korean Express unloaded its first ship. The realization of the terms of their contract, which called for them to unload a minimum of 70 thousand MT monthly took some time, while the hard working Koreans were getting sufficiently organized. During Rear Admiral Lacy's tour (February 1967 to February 1968), 25 fifteen-man Vietnamese hatch crews had been engaged to augment the handling of the increased tonnage.

Developing the Port of Da Nang

Before the navy was assigned to give logistic support in I Corps, Da Nang (or Tourane as it was called by the French) had had little to offer in the way of port facilities. The small commercial port which Da Nang boasted was limited in both size and depth of channel. Storage and modern material handling equipment were also very limited. When the build up in I CTZ began, it was obvious that port facilities would have to expand rapidly.

Many who lived through the first monsoon season, after the Thong Nhat piers were put into commission, cursed the location. As operations officer in the year 1966–67, I was among the cursers. The harbor is a very large natural roadstead, but unfortunately its entrance from the South China Sea is to the northeast, and of course Da Nang's location, above the bend of Vietnam, causes it to be most susceptible to the northeast monsoon. As the winds began to blow, normally in October, the piers stood completely exposed to the rigors of the high swells which came in at heights which belied belief. Ships lying at their berths would be picked up and banged against the piers, doing damage to both ship and pier. The vertical movement of the ship caused by the swells during these storms normally prevented the hatch teams from working the ships. It was then necessary to get a pilot aboard quickly, and shift the ship to an anchorage before damage occurred.

Nevertheless, those who made the decision on the location of these piers had very little choice. From the standpoint of port clearance, Thong Nhat was the most suitable spot for it was accessible by road and had adequate room for staging and expansion. Two 600-foot steel-framed and steel-jacketed piers, as well as one DeLong pier, furnished sufficient space to accommodate the deep draft ships. Ironically, the DeLong pier, which had been towed in from Thailand to accelerate deep draft pier availability for Da Nang cargo operations,

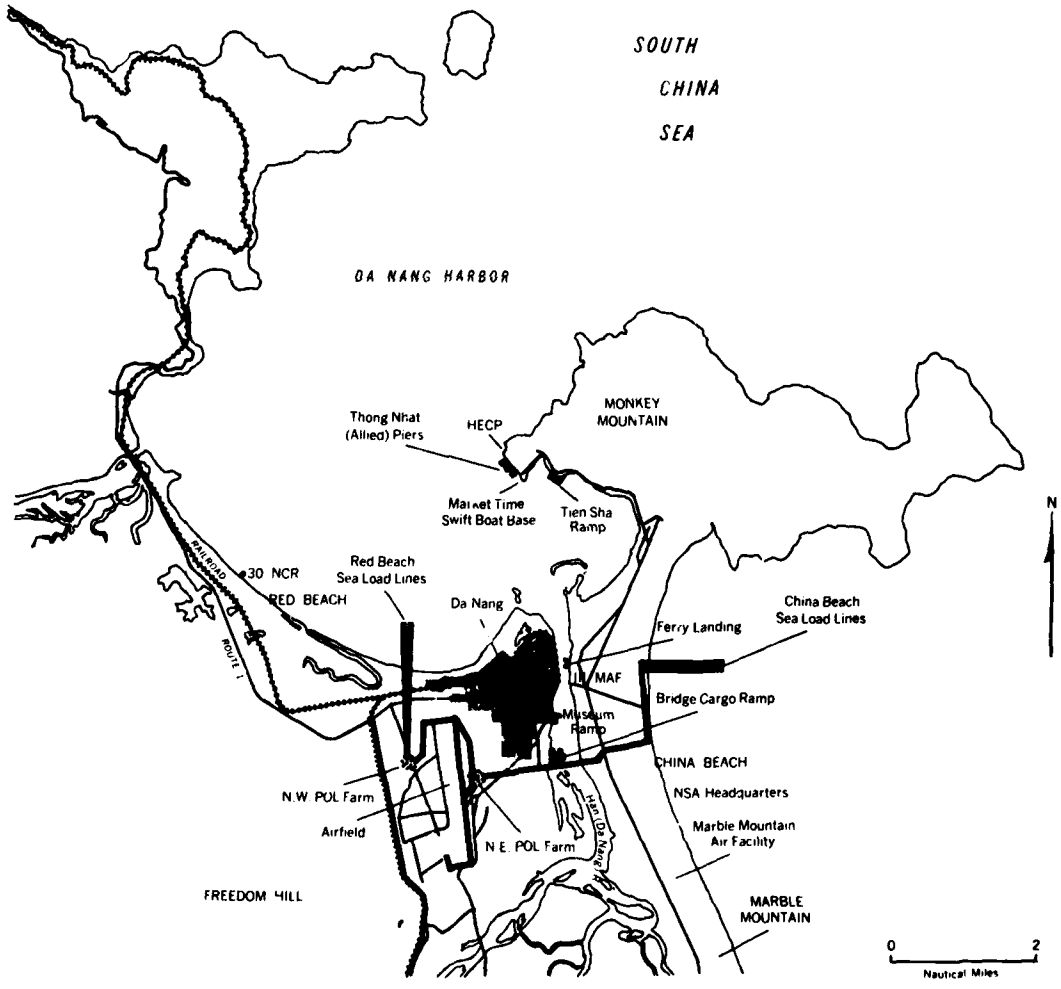
[7] *Measurement tons*: 1 MT = 40 cubic feet. This volumetric measurement is best used for low density cargo such as vehicles and boats.
Short tons: 1 ST = 2,000 pounds. This measurement is best used for high density cargoes such as cement, ammunition, and construction steel.

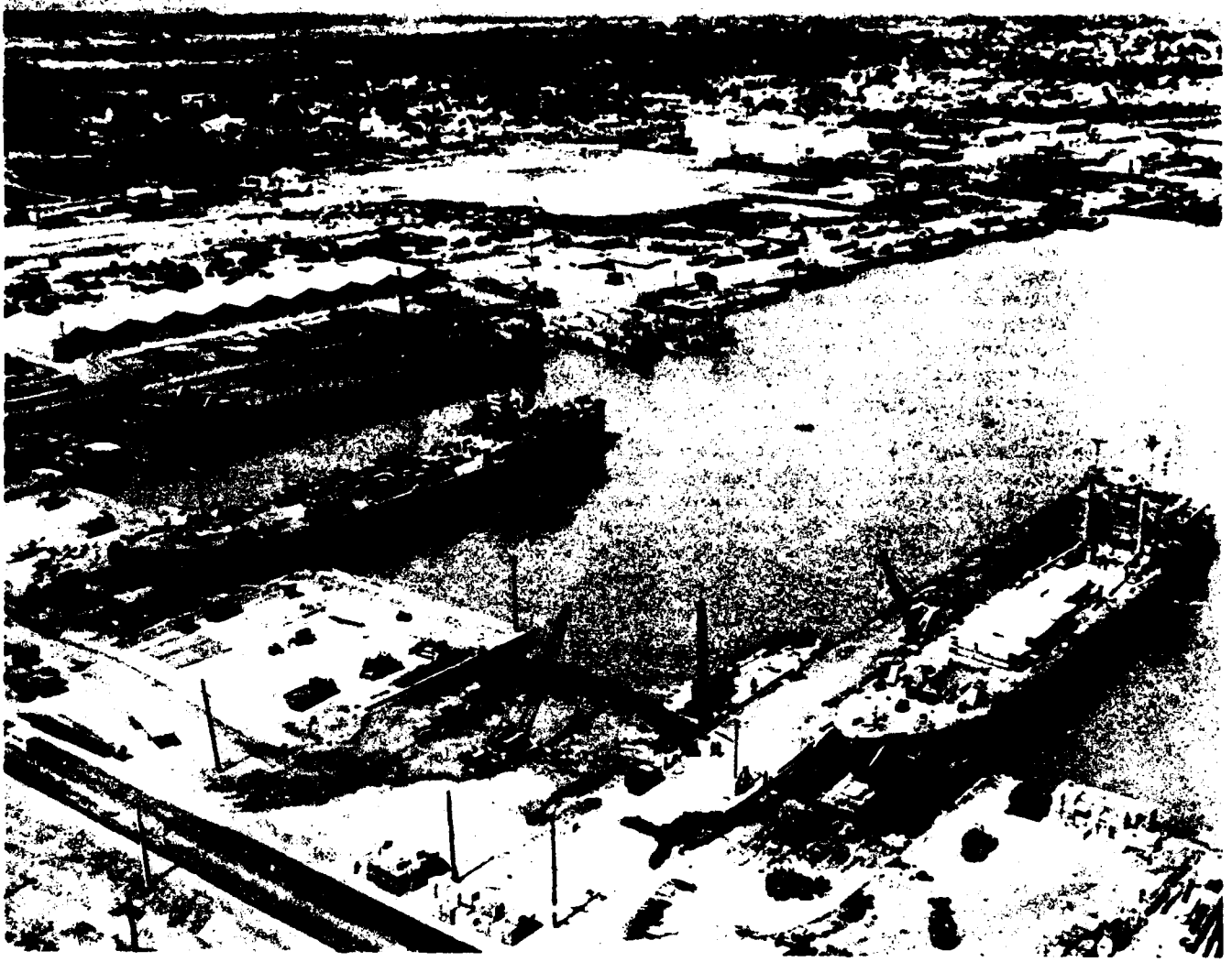
was not ready for cargo handling until several months after the conventional piers were being worked. The contractor was delayed in finishing the pier because the materials needed were slow in arriving.

Roads between NSA's covered storage and that of the Marine's Force Logistic Command (FLC), were widened and hard surfaced to accommodate the heavy trucks and "semis" with which NSA's freight terminal division accomplished port clearance.

Since heavy reliance for moving goods in-country was placed on small ships and boats, LST ramps were established at these points in Da Nang: the Ferry Landing across from the Da Nang Hotel, the Museum Ramp, adjacent to the Cham Museum on the same side of the river as the NSA headquarters building (the White Elephant), and at the Bridge-Cargo complex, which could accommodate LSTs, as well as LCUs or YFUs and barges. In addition, there were ramps for LSTs, LCUs, or YFUs on the Tien Sha Peninsula, just southeast of the deep water piers. The last named were the best located with relation to NSA's vast covered storage complex because trucks were not obliged to pass through the heavy traffic in the city.

Harbor Improvements. The channel in the Da Nang River (Song Han) from the harbor to the Bridge-Cargo complex was dredged to abo.t 18 feet to permit the passage of 1156 class LSTs at any tidal stage. A channel was also dredged eastward from the northernmost end of the main breakwater to Tien Sha cove to permit passage of YOs, YWs, YTBs, and even LSTs to the Small Craft Repair Facility (SCRF). This facility was established in 1967 to take care of the many ship and craft repairs associated with Da Nang's large fleet. Navigational buoys were installed to replace the makeshift oil-drum buoys for which the Vietnamese had such a penchant. Lighted ranges on the river made it possible for LSTs to sail at night.





At Da Nang's Seabee-constructed bridge-cargo ramp, cargoes that were brought by the seagoing ships are transferred to such smaller vessels as the two civilian-manned LSTs in the foreground, the nearby LCU, or the barge converted from an LST hull. Da Nang's small floating dry dock (AFDL), seen cradling YFU-54, accomplishes major repairs which otherwise would have to be performed in Japan or the Philippines.

By 1967, Red Beach, where the 3rd Marine Expeditionary Force (III MEF) had landed in 1965, boasted a ten-section causeway with a special, seven-can-wide "T" shaped turn around section on the seaward end. Since this causeway provided a convenient transfer point for bulky and oddsized construction material, such as pipe, pilings, and lumber, destined for either the 30th Naval Construction Regiment Yard or the Marine FLC dump, in good weather LSTs were normally assigned the Red Beach Causeway for loading. The "T" shaped turn-around sections on the end of the causeway permitted trucks to drive out on the causeway instead of backing out, and then turn-around to back into the LSTs for their loads. This saved much time and anxiety, particularly with green drivers. Unfortunately, the causeway could not be used during the northeast monsoon season.

Sea Load Lines. Ten and twelve-inch sea load fuel lines were extended both in Da Nang Harbor and seaward off China Beach. Since there were no tanker piers in any of the I Corps ports, these bottom-lay lines made the difference in being able to supply the needed fuel which, in December 1968, amounted to 1,700 thousand gallons per day.

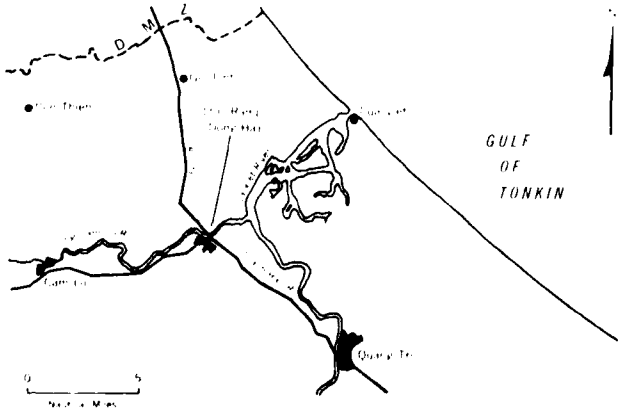
Land Communication. A look at the means of land transportation in I Corps explains why sea lines of communication played such a very important part in the logistic effort. With the exception of South Vietnam's main north-south artery, Route I, Bernard Fall's "Street Without Joy," roads adequate for logistic support of a military operation of the scope of the Marine effort in I Corps do not exist. Why was the railroad, which so closely parallels Route One, not used? Partly because it was only a narrow-gauge railroad. More importantly, it was hard to keep open. One has but to look at the terrain to appreciate the vulnerability of both the highway and the railroad. Together, Route One and the railroad probably include more trestles and bridges per road mile than any other roadbed in the world. Keeping either in commission continuously taxed both the Seabees and the Marine Corps Engineer companies. Nonetheless, the railroad, which had been essentially abandoned to the Viet Cong since the French threw in the towel in Vietnam, was a project which early in its existence NSA planned to press back into service. Japanese manufactured freight, flat, and gondola cars arrived in country in the spring of 1967, but the railroad was not opened even for limited use until Rear Admiral E. P. Bonner's tour (December 1968–December 1969), when it was opened between Da Nang, Phu Bai and Hue, with the first logistically significant load being a cargo of drummed fuel delivered to Phu Bai. By this time the railroad had little military significance, however, since the water lines of communication had been well established. It never offered much assistance in cargo movement. Its primary employment was to carry civilian passengers and goods.

The Development of the "Outports"

Chu Lai, the second most important port in I Corps by virtue of population and the lack of an alternative supply route, also went through a massive growth program, By the spring of 1967, the Chu Lai channel was dredged to the extent that YOGs and even coastal freighters could get into the harbor, although until the quaywall was completed later that year, they could do nothing more than anchor in the tiny Truong Giang estuary. Tides and currents were very strong at Chu Lai, so that, except in an emergency, ships entered and exited only with the favorable tides.

Port and industrial activity at Chu Lai resembled a mini-Da Nang, and the small expeditionary force which opened the operation in the spring of 1966 grew to over 1,000 naval officers and men. The buoyant four-inch assault hose, which first supplied fuel for all the machinery, was replaced with eight- and twelve-inch sea load lines. Because they were exposed to the northeast monsoon, the pipelines were often inoperative during the stormy season. Most commonly, the flex hoses, which made the hook-up to the tanker, were torn up by bad weather. If the line stopped functioning, YOGs would come right into the Truong Giang estuary at Chu Lai during the period 1966–67 and pump directly to marine refuelers.

NSAD Cua Viet Established. In the spring of 1967, after the long and eventful dredging experiences at Cua Viet (which included two explosions in the small Canadian dredge *Helbar* and the loss of the chartered tug *Saun Maru,* which was used to shift the DeLong pier dredging platforms around) the river entrance basin was opened to LSTs. The first two to enter, on 15 March 1967, were the USS *Caroline County* (LST-525) and the USS *Snohomish County* (LST-1126). The ramp could accommodate two of the large amphibious vessels, though for security reasons two were not normally scheduled on the ramp at any one time. Within range of North Vietnamese artillery and rockets, it was not good business to place that many eggs in one basket. The ramp area at Cua Viet, first covered by Marston matting, was given a soil cement hardpan in mid-1967. A steel pile bulkhead was driven adjacent to the LST ramp to accommodate the rock barges which made frequent trips from Da Nang. Cua Viet was transformed from a beautiful, white, unoccupied, sandy beach into an ugly, but thriving cantonment of plywood huts and mess



Some of the variety of small craft that supported the Marines along the DMZ are seen in this trio of photographs taken at Cua Viet. The left-hand LCM, converted to a floating drydock, is flooded (upper photograph), to repair a PBR. A 1600-class LCU (center photograph) passes the LST ramp near the river's mouth on her way out to sea. In the bottom photograph, an LCU, a YFU,—notice the open bow ramps—and smaller craft, pass one another near the mouth of the Cua Viet.

halls, a small boat repair facility, and a sizeable bladder fuel farm. The last was at first supplied by a four-inch bottom-lay line from a buoy offshore and later by a rigid six-inch sea load line.

For two years, boats transferring goods to Dong Ha or Quang Tri from Cua Viet, were able to use that river practically unmolested. But after NSAD Cua Viet was finished, "Charlie" and the North Vietnamese Army came to life and began to harass our riverine logistic forces. The enemy made navigation of the river at night impossible, and in 1968 and 1969 he attacked the supply vessels in daylight.

Sufficient staging areas to accommodate an LST's load of cargo were available at the Cua Viet Ramp. Since this was a transhipping point only, cargo stayed in the staging area only long enough to be loaded into a smaller craft for the seven mile trip up river to Dong Ha. Normally forklifts moved cargo directly from LSTs to river lighters when the latter were available.

Fuel was transported up the river to Dong Ha in bladder boats (LCM-8s equipped with 10 thousand gallon bladders) and then when adequate numbers of Ammi pontoons became available, in those infinitely safer containers. The half-submerged sections were propelled by warping tug power units.

Fuel delivered to Dong Ha ramp was pumped overland for the remaining mile to the local Combat Base tank farm through four-inch hoses. At first the Marine Shore Party handled the unloading at the Dong Ha ramp, working from dawn to dusk. As Dong Ha and Cua Viet were expanded, and an increased Navy personnel allowance was approved, NSA Da Nang relieved the Marines of port clearance and began round-the-clock operations when they were required to remove any backlog remaining at the end of the day.

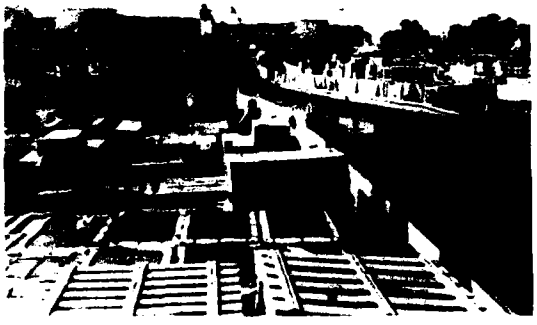
Tan My. Tan My was the potential site of a super-logistic complex which never quite materialized. It served as NSA's control point for river traffic dispatched to Hue or Phu Bai and consisted of a bladder fuel farm manned by Marines, a security unit, and the small NSA detachment cadre which ran the communications van providing liaison between NSA Da Nang and the Hue city ramp. By mid-1967 the detachment had two separate ports groups, one an augmented unit at Tan My which took over all logistic support for the Marine security and fuel farm personnel, and the other a stevedoring group at the new Hue city ramp. The latter were berthed with the Seabee detachment at Phu Bai. Fuel, which heretofore had come to Phu Bai via Hue by tank truck over the narrow and tenuously controlled road from Col Co causeway at Tan My, was eventually delivered by six-inch pipeline laid above ground from Tan My to Phu Bai.

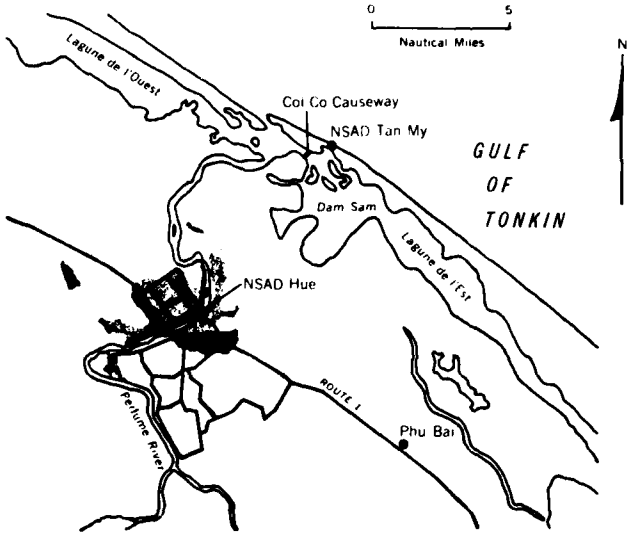
Because dredges were scarce in Vietnam, dredging on the LST port at Tan My could not be started until completion of the Cua Viet channel to the north. But by 1968 it was a reality. Dredging at Tan My consisted of cutting a channel which ran parallel to the surf line inside an offshore sandbar, then digging out a turning basin inside the natural lagoon which served as a runoff area for the Huong, or Perfume, River. The obviously undesirable orientation of the channel was dictated by the lagoon's opening to the sea.

Dam Sam Plan Abandoned. Early in 1967 plans for a large logistic complex on the Dam Sam were made. This included a deep water port and a combined tactical and logistic airfield with complete warehousing facilities and access roads, which would perforce be carved through rice paddies and swamp. Mui San, which represents the apex of the land extending into Dam Sam, was to be the depot site. A new deep water channel was to be cut through the narrow strip of land southeast of the NSAD, Tan My, cantonment. The high cost estimate for this undertaking caused its abandonment and the alternate Col Co development plan was implemented.

Duc Pho. In the spring of 1967, when the Army proposed plans to insert troops in the Duc Pho district of Quang Ngai Province, approximately 60 mi's south of Chu Lai, the Naval Support Activity at Da Nang made known to the Army many misgivings about the logistic feasibility of such a move. The operation could not be supported overland from Da Nang because of the very poor roads. Sea support in a straight Logistics over the Shore (LOTS) operation was feasible during the non-monsoon season; however, it appeared out of the question once the October-March monsoon storms began because the beach was completely unsheltered.

NSA operations personnel, which included UDT men, reconnoitered candidate coves up and down the coast between Chu Lai and Sa Huynh. The only site that appeared suitable for development into a port was Sa Huynh, almost on the southern border of I CTZ. A natural lagoon with the odiferous name of Dam Nuoc Man (Nuoc Man is the name of a strongly scented condiment made of fermented fish juice) had an opening to the south. While the lagoon was shallow and surveys indicated that LCU's would have a narrow channel to thread to get into the lagoon from the South China Sea, it appeared that a little dredging would make it suitable as an "outport." The shallow water in the lagoon created tidal flats, which made this a natural salt farm, and the VC had long before staked their claim to it. Nonetheless, it appeared that the small island of Sa Huynh could be developed sufficiently to support





Before the installation of the overland six-inch pipeline from Tan My to Phu Bai, fuel was carried up the Perfume River in LCMs. Here an LCM-8, guarded by a PBR, pumps fuel into a Marine Corps tanker truck. Two 1600-class LCUs arrive at Hue's ramp (left). The University of Hue in the background is visible in the photograph on the opening pages of this essay.

the southern I Corps operation.

Tight dredge resources, and the deceptive ease with which the Army was able to support itself logistically directly over the beach with MSTS-manned LSTs, during summer when weather was not a factor, combined to defer establishing Sa Huynh during 1967. However, the monsoon season in 1967 removed all doubt that only with development of a port at Sa Huynh would the Quang Ngai Province operation be successful on a year-round basis. And so, Sa Huynh was established as NSA Da Nang's southernmost activity. It had LCU ramps and roads from the sea terminus to the Army area of operations. A four-inch sea load line was installed at Duc Pho and an assault fuel farm was built to store the fuel. As can be readily imagined, the sea in Duc Pho's open roadstead played havoc with this line during the monsoon.

Storing and Delivering Fuel

Fuel in I Corps was delivered ashore by pipes from the sea. The development phase in such a system normally was carried out by men from an amphibious construction battalion who would float ashore a buoyant four-inch system. These lines, temporary installations at best, take both skill and effort to install. Their main drawback is that they are easily damaged by boats and by surf; their advantage is that they can be streamed

from LCMs and so installed very quickly.

The buoyant lines were replaced as rapidly as possible by rigid steel pipe lines on the sea bottom which were pulled out from the beach by an LCU equipped with an "A" frame, designated an LCU(F). The seaward end would be anchored with substantial concrete clumps; a flexible "pigtail" completed the rig. A mooring buoy was anchored at the end of it to serve, both as a marker for the seaward end of the line, and to provide the AOG, which was used to fuel all the outports except Chu Lai,[8] a place to moor and thus avoid inadvertent anchoring on, and consequent pulling up of, the pipe when getting underway. These rigs worked well during the calm seas of the summer months, but failed from time to time after the start of the monsoon season. The ten- and twelve-inch lines installed at Chu Lai and Da Nang withstood the storms somewhat better than the eight-inch lines first used, though their sea ends also fell victim to the high winds and sea, which prevailed from October through March.

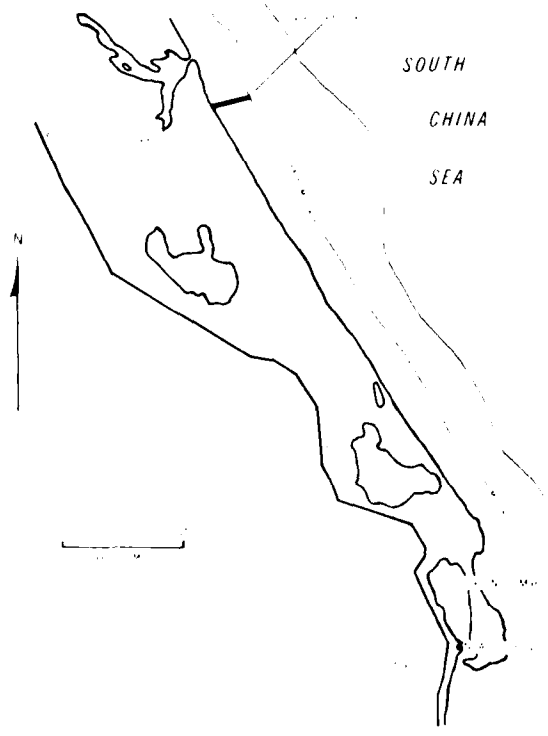
At Phu Bai, which supported the intensive campaign north of Da Nang and was the headquarters of the 3rd Marine Division, the fuel situation became critical enough to warrant the installation of a "Swivel-Top" or Mono Buoy. This was an extremely large buoy measuring 30 feet in diameter and 13 feet in depth. Securely moored off Tan My by eight 12,000 pound "Stato anchors,"[9] it had the sea ends of two eight-inch sea load lines coming up through the buoy and terminating in a swiveling goose neck connection on top. Two eight-inch flexible hoses were attached to the goose neck to complete the hook up rig for an oiler to pump its product ashore. The hoses were equipped with flotation rings which kept them afloat when not in use to prevent their tangling in the mooring chains. Unfortunately, this flotation gear was not monsoon-proof and the answer to keeping them afloat was eventually found in the use of buoyant hoses. The cost, ($300 thousand each) precluded initial installation of these buoys in Da Nang and Chu Lai, but when the Marine action shifted north of Da Nang, the buoy's value was reconsidered. In September 1969, one was installed at Tan My. In retrospect, considering the men and equipment which were tied up in repair of the line after a monsoon storm, the buoy would doubtlessly have been an excellent investment at Chu Lai also. And, of course, one must add to these costs the Commander's anxiety over the possibility of being unable to support the fuel requirements for the Chu Lai area. Never during the length of his tour, Rear Admiral Lacy asserted, did he feel completely comfortable about the future fuel supply in I Corps.

[8] Where the larger T-2 tanker was used.
[9] Modified Danforth anchors.

Ship Salvage

Monsoon storms exacted their toll from the Navy support effort not only in fuel lines but also in ships. Probably one of the least publicized aspects of NSA's work was that done in the salvage of vessels. NSA had no salvage tugs or salvage divers in its organization. Harbor Clearance Unit One, which assisted in clearing a hulk near Museum ramp and in the attempted salvage and ultimate clearance of the USS *Mahnomen County* (LST-912) at Chu Lai, belonged to ComNavForV. But the weather did not pay attention to our organization and each year it demanded, and got, a considerable salvage effort from us. Christmas week of 1966 was an example.

On Christmas Eve morning, Da Nang received the word from the detachment at Dong Ha that its warping tug, which had been sent up to salvage the four-inch bottom lay line, had gone aground just north of the channel leading into the Cua Viet. Thus far local salvage efforts had failed. The Luzon Stevedoring Company's diesel tug *Tiburon*, under charter to NSA, was ordered to proceed to Cua Viet to salvage the warping tug. The Filipino skipper and crew, with the placid resignation which mariners develop about such things, headed north from Da Nang. The following morning, Captain Jim Linville, Assistant Chief of Staff, Operations and Plans, for NSA Da Nang, flew up to Dong Ha to see how our bluejackets were faring during their first Christmas under the shadow of the DMZ. As he flew north from Tan My, he noted what appeared to be a vessel in distress. He directed the pilot of NSA's "gooney bird" to make a sweep over the vessel. Sure enough, it was the *Tiburon*, in trouble. En route north, the *Tiburon* had grounded in the coastal shallows and the wind and sea had done the rest. Continuing his flight to Dong Ha, the Captain relayed the news of the tug's trouble to Da Nang. The word was passed to the Coast Guard, which sent an 82-foot WPB from Market Time Operations nearby. An LCU was also dispatched to the scene. A line was passed to the stricken vessel. Unfortunately, a monsoon storm developed at the same time. Lines parted and waves became too high for the two small rescue vessels to continue their work. Under the merciless pounding of the waves the *Tiburon* was driven into the beach and finally rolled over on her side. Grabbing the ship's log and any personal belongings they could stuff into their clothing, the captain and crew abandoned their ship and swam into the beach through the surf. Shivering from the cold, they were plucked from the unfriendly beach by a Marine helicopter sent from Phu Bai. The following day I flew up to Phu Bai and thence to the beach about 10 miles north of Tan My where the Pacific fleet salvage officer and I swam out to the *Tiburon*, which, by this



With its establishment in 1967, on a small island two miles north of the southern I Corps border, Sa Huynh became the newest, smallest, and southernmost of NSA Da Nang's five detachments. Unlike the other detachments, which supported elements of the First and Third Marine divisions, Sa Huynh was established to support a U.S. Army division.

time, had been turned by the swells so that her bow pointed seaward. She still lay flat on her starboard side, as she was when abandoned by the crew. Her position made salvage attempts impractical. The company accepted the navy's recommendation and abandoned the tug. For at least the following year, she served as a reminder to all who flew north from Da Nang to Cua Viet of the fury and uncertainty of the sea. Ironically, the warping tug, which the *Tiburon* had been sent to rescue, was pulled off the shoal by an LCU the next day.

Two days later Da Nang had a bit of a blow. The Harbor Entrance Control Post advised ships anchored in the southeastern part of the harbor to check their position carefully to guard against dragging. One ship in particular, the *Coastal Trader*, on a General Agency Agreement charter, appeared to be getting set down toward the beach by the wind and swells. The following morning the Master sent out word that he was aground in a soft mud bank. The one NSA YTB, several pusher boats, and a couple of YTLs were all sent to pull the freighter out. After much tugging and twisting, the stranded merchantman floated free and was pulled to a safe anchorage. The next day word was received that the *LCU-1493* had gone aground about ten miles south of the Cua Viet. A LARC and a YFU from Dong Ha were dispatched to assist the stricken vessel. Two days of skillful efforts finally freed this craft, permitting her to resume her trip north. The rescue was not without its cost, however. The LARC, then under tow by the LCU, because of engine failure, slowly filled with water and sank.

The Loss of the USS Mahnomen County. The climax to this turbulent week occurred on New Year's Day during the midwatch, when the USS *Mahnomen County* (LST-912) parted with her anchor off Chu Lai while waiting for better weather so she could enter and discharge her one thousand-ton cargo of cement. Before the main engines could be brought on the line, a combination of high winds, mounting seas and a uniquely high tide picked the hapless LST up and deposited her on a rock shelf adjacent to the MAG-36 helo pad. Salvage efforts were begun the next morning with the discharge of the cement over the stricken T's side. Elements of HCU One were flown down to Chu Lai to begin the salvage. The best efforts of three ATFs and an ASR pulling in concert were unable to dislodge her. It was puzzling, as well as disheartening, to witness all the effort exerted to dislodge the ship from her perch, and yet to see no evidence of movement. Later, when the seas calmed down sufficiently, divers were able to discover the reason for the failure in their salvage scheme. The LST had settled down on three rock pinnacles which had penetrated her bottom and they sealed her fate. Efforts were made to cut the hull in two and tow the ship off as a bow and stern section. Salvage efforts were finally determined to be futile and the ship was cut down to the second deck. The first reason was to remove any hazard to aircraft, but the strongest motive was to make less conspicuous a U. S. naval vessel wrecked on the coast of South Vietnam.

The Dredge Hyde *Mining Incident.* The *Hyde* was one of the operational anomalies of the logistic organization in I Corps. The Army at sea working for the Navy on land. The U. S. Army Corps of Engineers dredge *Hyde* was the first vessel working for NSA to fall casualty to enemy action. Steadily engaged in dredging the Cua Viet bar to permit the entrance of LSTs in this most northerly NSA outpost, the *Hyde* was the victim of two limpet mines placed on the starboard bow and port quarter, respectively, on 9 May 1967. The bow mine exploded first at about 0400 on 9 May 1967, whereupon the quick-thinking mate on watch cooly dumped his hopper of sand and headed the dredge into the south bank, where he beached the sturdily constructed vessel. Two hours later, the second charge detonated. Fortunately, the dredge, with sand dumped, had lost three feet of draft and the charge blew a hole about the size of a grapefruit in the ship's counter row above the water. Minor damage was done to the after steering machinery room. The hole in the bow was a different matter. It was seven feet long by four feet high and allowed the flooding of a ballast tank, the bosun locker, paint locker, carpenter shop, and sail locker. A cofferdam was placed over the hole into the working spaces, and a layer of cement was laid over the hole in the paint locker deck. A piece of quarter-inch boiler plate was welded over the skin of the ship to serve as a fairwater, and, within thirty-six hours, the intrepid dredge and her undaunted Master, Captain James Bartell, were resuming their slow but steady assault on the sand which formed the river entrance bar.

The USS *Coconino County* (LST-603) was the first major naval ship to suffer from the hands of enemy swimmers in the I Corps Tactical Zone. Mined while on the ramp at Cua Viet on 29 June 1967, the "lucky Coco" was towed back to Da Nang for patching by the Small Craft Repair Facility, before being towed to Guam for final repairs.

Civic Action

Although not specifically charged with Civic Action in its original charter, NSA assigned men to that job with the necessary equipment. It was a good investment in the country of South Vietnam, especially when one

considers the stark destruction of war. The first big effort was in the establishment of Civic Action Teams, or CATS. CATS were composed of skilled petty officers who volunteered to live in the hamlets with the Vietnamese and assist them in myriad projects ranging from building schools and digging wells to just plain instruction in sanitation and hygienic improvements. The accomplishments of these dedicated men were most impressive.[10] By living with the people they sought to help, they helped to dispel the suspicion, distrust, and resentful feeling among the villagers that they were charity cases, which are not uncommon to people of less developed areas. When the rocket and mortar attacks occurred, NSA CATS took their lumps with the villagers, and then were the first out of the shelters to begin the rebuilding.

The work of the CATS or VATS (Village Action Teams) had a strong appeal to NSA officers and sailors, and more and more of them succeeded in contributing to the program on their own time. Volunteer sick calls, city beautification projects, clothing distribution, and the like sprang up as a result of the generosity which lies in the hearts of all Americans when faced with the plight of the less fortunate. During July 1967, some 273 projects were completed by CATS involving the building of 60 classrooms, 19 hamlet offices, and 275 houses.

The training of Vietnamese civilians in basic skills became a very valuable adjunct to the work of the CATS. Auto repair and sewing were two of the most popular and productive classes. These and many other vocational training opportunities assisted the local people to aspire to personal improvement. Sanitary conditions at Da Nang were greatly enhanced by the garbage disposal system organized by NSA. Streets and alleys, once rife with garbage, were once again negotiable without the former stench. Fire protection was another mutually benefitting civic action provided by the Support Activity.

In 1969, when the Accelerated Turnover to Vietnamese (ACTOV) began in earnest, the training program, begun as a matter of Civic Action, was converted into a Navy training program to equip the Vietnamese to operate the marine craft, vehicles, and electronic equipment which were being transferred to Vietnamese military personnel.

Small Craft Repair Facility

No account of the achievements of the support activity at Da Nang would be complete without describing the work of the Small Craft Repair Facility

High winds and a uniquely high tide hurled the USS Mahnomen County (*LST-912*) ***on a rock shelf off Chu Lai. Three ATFs and an ASR, pulling together, could not dislodge her even after her thousand-ton cargo of cement was taken off. She was found to be impaled on three rock pinnacles and, when all salvage efforts proved futile, she was cut down to the second deck and abandoned.***

[10] Described in detail by Captain C. E. Merdinger, CEC, U.S. Navy, in his article, "Civil Engineers, Seabees, and Bases in Vietnam," in *Naval Review 1970*, p. 254.

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(SCRF). At first the SCRF was a branch of the operations department, but by mid-1966 it was accorded department status. The engineering and repair division, forerunner of the SCRF, was organized in January of 1966 and consisted of two officers and 22 men, one LCM work boat, and three sections of pontoon causeway. By that April, the repair section expanded to include a YR, an AFDL, and a YFND.[11] These craft were originally positioned in the southeastern section of Da Nang Harbor. But this was exposed to the sea and therefore dredging, including a 20-foot channel, was begun in the eastern-most section of Tien Sha cove. This would not only permit the entry of craft to be repaired, but would also permit the floating drydock to submerge for pickup of the vessels to be drydocked. Soon another YR was received, as was another YFND. These were moored near the Vietnamese Naval Base behind Monkey Mountain and were designated to handle maintenance work on the boats assigned to Market Time.

The skill and ingenuity of the officers and men who manned the Small Craft Repair Facility cannot be praised too highly. To give the reader some idea of the tempo of operations during the month of March 1968, 68 small craft were drydocked. The engine shops in the YR worked around the clock overhauling the propulsion units for the essential lighters.

In the early days of the Support Activity, regular overhaul of lighterage, from LCM-3 to LCU or YFU-size, was done in Subic Bay or Japan. The YWs,[12] YOs, and YOGs, together with the tugs of various sizes, also had to make the long journey, either in an LSD or by sailing escorted, to receive their regular overhauls. It was the dream of the Repair Officer, Commander Ray Pierce, that SCRF would some day be able to save these long transit times and accomplish the overhauls in Da Nang. In February of 1967 this dream was realized when the overhaul of the first YFU in ICTZ was completed. Routine maintenance of the vast armada of service and lighterage craft[13] precluded overhauling all the vessels. However, the two months consumed by an overhaul outside Vietnam became unnecessary for a significant number of the craft.

Perhaps the most impressive of SCRF's many talents lay in their versatility. They never protested that because they lacked facilities, special tools, or specially trained men, they couldn't do a job. Whether it was changing one of the dredge *Hyde*'s large screws, placing a patch on the *Coconino County*'s ruptured bottom, replacing the bottom and major portion of the hull of a YFU damaged by a mine, changing gas turbine engines in the gunboat *Asheville* (PG-84), or drydocking the Alaska Barge and Tug Company's tug *Makah*, SCRF could do it. In addition, the attached Navy divers were active during the monsoon season in keeping the sea load fuel lines in commission, as well as in aiding successful salvage work from one end of I Corps to the other. A small repair detachment was maintained in Chu Lai, which was adequate for performing maintenance and emergency repairs on their support craft. When the Cua Viet ramp was put into commission in March of 1967, a small detachment of repairmen was assigned to keep the many lighters operational. They were the same men who that May were to have the *Hyde* back in operation within 36 hours of the time she fell casualty to the mine.

The move to Tien Sha Cove by the SCRF greatly enhanced its value. It permitted the expansion of facilities on the beach. A finger pier, replacing pontoon causeways, was built alongside for mooring craft in need of repairs.

The NSA Hospital

Just as the SCRF cared for sick craft, the NSA Hospital served the sick and wounded men in I Corps.[14] Construction of the 400-bed hospital began in July of 1965. By early 1966 it could accommodate 165 patients and consisted of 18 buildings which ranged from laboratories and an X-ray room to an optical shop. By June of that same year, it had grown to 330 beds and included air conditioned operating rooms and wards. By the end of August, the goal of 404 beds had been reached. This capacity, added to the almost 800 beds in the hospital ship *Repose*, greatly assisted in the rapid and excellent medical attention which has become one of the remarkable accomplishments of the Vietnam war. In the spring of 1967, the USS *Sanctuary* (AH-17) joined the USS *Repose* (AH-16) and added 780 hospital beds. Eventually Da Nang Hospital increased to 600 beds.

Each person who has served in Vietnam probably has his favorite example of the outstanding medical service available in country. My favorite example of cool courage combined with remarkable professional skill involves the removal of a live 60 mm. mortar round from the chest of Private First Class Nguyen Luong, ARVN. This daring operation was accomplished by Navy Medical Corps Captain H. H. Dinsmore with the assistance of Chief Engineman J. J. (Shorty) Lyons, Navy

[11] A YR is an internal combustion engine repair barge. It is not self propelled, but is covered. An AFDL is a small floating drydock used to support amphibious action. A YFND is a covered barge used as a shop stores vessel. The last two types are non-self-propelled.

[12] These craft provided water to ships calling at Da Nang, obtaining their cargo from a stream running down the side of Monkey Mountain.

[13] On 1 January 1969 NSA Da Nang had 53 LCUs or YFUs, 36 LCM-6s or LCM-3s, and 46 LCM-8s.

[14] See "Doctors and Dentists, Nurses and Corpsmen in Vietnam," by Commander F. D. McClendon, Jr., MSC, U.S. Navy, in *Naval Review 1970*, p. 276.

explosive ordnance demolition expert. The pair, working in an area surrounded by sandbags to protect the rest of the operating room staff should the mortar round detonate, calmly made the incision and then gently lifted out the round with its detonating plunger just millimeters away from contact with the explosive squib. True to the Navy practice of awarding honorary memberships, Dr. Dinsmore was appointed an honorary member of the EOD fraternity, while Chief Engineman Lyons was made an honorary corpsman. Captain Dinsmore also received the Navy Cross for his intrepidity.

During the four years the hospital was operated under Navy management, a total of 66,007 patients, 21,523 of whom had combat related injuries, were treated. In addition, nearly a million persons received outpatient care (958,051 to be precise).

New Equipment Enhances Capability

New concepts and equipment were identified and used in an ever urgent attempt to keep the "customer happy." One of the early techniques used to keep supplies flowing into Northern I Corps was the use of LSDs to carry LCUs and YFUs "piggyback" during the monsoon season. As has been previously indicated, when the great northeast monsoon swells built up, transit time for the old YFUs was doubled, often tripled, or more. In an attempt to keep the Third Marine Division supplied, YFUs or LCUs filled with cargo were loaded into the well deck of an LSD, which then steamed north at three to four times the old lighter's speed. Arriving off Cua Viet in the morning, the LSD would disgorge her boats and then pick up a load of empties for the trip back south. Frequently AKAs were also used to assist in clearing cargo backlogs, or to assist in rotating Marine Units out of Vietnam. In each of these cases, the Support Activity supplemented the AKA's own boats to speed loading and unloading.

Introducing the Containership and the Roll-On-Roll-Off

Containership operations in Vietnam were started in ICTZ on 1 August 1967, when the steamship *Bienville* arrived in Da Nang with 228 35-foot long trailer truck size containers, 55 of which were refrigerated vans. Within 18 hours the *Bienville* was unloaded and her cargo, still in its containers, was on its way to the customer. The vans, lifted out of the ship's holds by her own cranes, were moved to the side of the ship and lowered carefully to the waiting wheeled frames and tractors parked on the pier below. Customers were pleased with this new method of packaging and delivery. The time saved in handling by NSA Da Nang was substantial. Since the vans were locked, pilfering was reduced, and critical pier space was saved by the rapid movement of vans from the unloading area. The vans also afforded a convenient container for retrograde cargoes, such as empty brass.

Refrigerated vans were particularly valuable. Lettuce picked in the Salinas Valley of California was packed in the refrigerated container in the field and, without further handling, traveled to Da Nang in an ordinary containership. In this way spoilage was drastically reduced in all refrigerated items. The reefer vans also offered critically needed temporary refrigerated storage space. Finally, the vans eliminated the need to handle and stage cargo at ocean terminals. Despite the early concern that the monsoon weather might make the unloading of containers unfeasible, it was discovered that there was no appreciable effect on the operation during most of the monsoon season. The use of Skycrane helicopters for unloading containers was experimented with in Da Nang, but was never adopted.

The introduction of Roll-On Roll-Off (Ro Ro) shipping, however, which in Vietnam was begun at Cam Ranh Bay, in II Corps, also proved quite advantageous in the movement of rolling stock to and within I Corps. In November 1967, the steamer *Transglobe*, under MSTS charter, began a Ro Ro service between Da Nang and Okinawa. On the first occasion, 44 trailers and 15 miscellaneous vehicles were discharged in a five-hour period. The Ro Ro concept allows a vehicle to be driven both aboard and off the ship. The ship to be unloaded is moored alongside a pier in the normal manner. When alongside, she is gently eased back until her stern ramp is within reach of the causeway or barge located astern on to which her cargo is driven. The causeway or barge is connected to the land so that the vehicles are easily driven ashore. This system was used not only at Da Nang, but also at Cua Viet, and was a welcome improvement in the logistic movement of vehicles, especially in the handling of trailers and semi-trailers.

The "Skilak"

So far as local seaborne lines of communication are concerned, the greatest improvement coming out of the war was the introduction to the Navy of the "Skilak." The old YFU, and its newer version, the 1400 class LCU, did a yeoman job of handling the unique shuttle of cargo from Da Nang to the many ancillary ports served. They sailed when all the rules of prudent seamanship dictated that they should stay in port. They lost their way because their primitive navigational equipment was never designed for such open sea voyages. In spite of the efforts of a group of hard-working electronic technicians, their radars and communication gear were out of order about as often as they operated. Yet they continued to sail north and south from Da

ng with their hundred-ton loads of cargo. The in-
›id crews who manned these "t' boats" were un-
inted in carrying out their arduous and often
notonous routine, which, beginning in 1967, became
ardous as well. Sometimes the 'Us' were stranded
unfriendly shores and on occasion sailed past the
Z only to have the North Vietnamese garrison on
er Island fire at them, giving them their first clue
t they had passed their destination.

Then, in late 1967, the first of the new breed of
go carrier came into the picture. The "Skilak" was
igned in San Francisco for the Alaska trade. When
\ examined the new craft concept, it was apparent
t its greater capacity made the "Skilak" perfect for
istic operations in I Corps. When the first one of
m arrived in Vietnam in the well deck of an LSD,
NSA lighterage operators were convinced. Here was
aft that could carry 360 ST of dry cargo for harbor
rations and 260 ST for coastal operations (the lighter
d gave a greater amount of freeboard and allowed
greater safety). The "Skilak's" draft and speed was
ut the same as the 1400 class LCU. The living quar-
were better than quarters on either the YFU or LCU,
ıg roomy and air-conditioned. Engineering spaces
e roomy and accessible compared with the YFU
erein the engineer was forced to walk in a crouch
›ugh his main engine room. About the only disad-
tage was that the main well deck was not
ngthened to carry tanks, and, in a purely logistical
, this really wasn't a drawback. One favored use
in the movement of ammunition. The "Skilak"
loaded alongside ammunition ships and then pro-
led to her destination at Tan My or Dong Ha
hout any further handling.

n addition to her improved dry cargo capacity, the
ilak" had a very impressive liquid cargo storage
icity. In December of 1969, with the sea load line
Cua Viet not operational because of monsoon storm
ıage, "Skilaks" delivered 130,000 gallons of diesel
to Dong Ha. Designed as they were for the rough
ther of the Alaskan trade, they had few problems
he monsoon weather.

Versatile Ammi

Another new design to come out of the war in
tnam was the Ammi Pontoon. This versatile piece
quipment, which measured 90 x 28 x 5 feet, offered
wers to a wide range of requirements associated
ı forward area logistic operations.

Designed to accommodate 22-inch steel spuds at each
ıer, the Ammi could become a quick reaction
i-DeLong pier. These same spuds served as guides
n the Ammi was flooded and used as a forward
small craft dry dock. With the craft positioned
over it, the water was removed with compressed air
and up came Ammi with up to 200 tons of small craft
high and dry. Equipped with large warping tug "out-
boards," it became a self-propelled fuel barge with a
capacity for 58 thousand gallons of different kinds of
fuel in its six tanks. When further equipped with a
transfer system, the Ammi was used to fuel lighters
in Da Nang harbor and relieve the overworked YOGs
and YOs. Eventually it relieved the LCM-8 bladder-
equipped boat on the Cua Viet fuel shuttle to Dong
Ha. In November of 1969, when the YOG-76 was mined
in the Cua Viet, the reliable Ammi played a role in
helping to refloat that valuable fuel carrier. Both Ammi
and "Skilak" have earned a well deserved spot in the
history of Navy logistic support operations in Vietnam.

Operational Obstacles

Certainly, a logistic operation the size of NSA faced
obstacles, as the reader has come to learn. Obsolescence
of equipment, absence of clearing port staging areas,
shortage of spare parts, disagreeable geography, un-
known hydrography, enemy action, and difficult
weather, were the major problems which provided daily
challenges to the Commander and his staff.

Obsolete equipment represented a definite obstacle
to a smooth, efficient operation of NSA. Twenty-year-old
service craft posed problems in maintenance and reli-
ability. They continued to function only because of the
masterful efforts of their dedicated crews, and the inge-
nious repair department people, who never let anything
deter them from meeting a craft's sailing schedule. Tired
engines, worn out transmissions, and poor preservation
made most of these relics of another war candidates
for a scrap yard. In fact before the war began two of
the YFUs had been sunk at Yokosuka to serve as im-
provised harbor breakwaters. Pumped out and refloated,
they were overhauled and sent to Da Nang to join
the coastal shuttle which kept the Marines in business
in I Corps.

Clearing cargo staging areas was initially a problem
of some magnitude. There simply were not enough
trucks to keep the cargo cleared on its way to the
customer or to storage. The roads, few in number and
bad in quality, contributed to this problem.

Worth its weight in gold when it worked, and yet
a millstone around the freight terminal officer's neck
when it needed repairs, was the rough terrain fork lift.
It was ideal for working cargo on the unimproved
terrain and it was able to move itself about the confines
and obstacles which an LST ramp and tank deck pre-
sented; but the lack of repair parts kept many inoperable
during the first two years. The shortage of these versatile

Because the thousands of NSA Da Nang's Bluejackets—whose job it was to use the blue and brown water—were not found wanting, the thousands of Marines like this mortar crew—whose job it was to hold the ground—did not want.

vehicles had a definite deleterious impact on cargo movement.

Geography and hydrography of the area also posed substantial obstacles to logistic operations. Waterways were shallow and filled with sandbars, which made voyages at all tidal stages difficult. The labyrinth of waterways which crisscrossed the countryside made travel ashore difficult because of the enemy's land mines, booby traps, and sabotage of bridges. There is just no easy way to move cargo in the land of rice paddies and coolie hats.

Enemy Interference

As one might expect, enemy action provided some obstacles to NSA operations. A few examples will suffice:

On 12 June 1967, NSAD Cua Viet received 200 rounds of rocket and artillery fire. Three 10,000-gallon bladders and their contents were destroyed.

In February 1968 the Officer-in-Charge of NSAD Hue was killed during the Tet offensive.

In September 1968, three LCM-8s were damaged by mining in Dam Nuoc Man at Sa Huynh.

On 16 January 1969, *YFU-62* was mined while transiting Cua Viet. The craft sank. Eight were killed, three wounded.

On 27 February 1969, a rocket and mortar attack on the Bridge Cargo Facility at Da Nang sank the *LCU-1600* and *YFU-78*, killing 13 in the one and 6 in the other. Both craft were loaded with ammunition.

That more NSA bluejackets and officers were not killed can be credited more to a kindly and protective Providence than to any invulnerability which their craft, armament, or cargo offered.

Weather

Weather complicated the job of the logistician in I Corps. We can give weather full credit for keeping two, and sometimes three, dredges on duty in I Corps waterways—and there were times when these busy craft did not prove adequate to keep the channels open after a typhoon, such as Doris in September of 1969. We can credit weather with making life miserable for salvage and UDT divers who had to get out and check to see if the sea load lines were intact after each northeast monsoon. Many a young lieutenant (junior grade) was thwarted in his job as YFU convoy commodore by 14-foot waves which caused him to postpone sailing his vital cargo until the storm had abated. For further confirmation of the weather's role, ask any of the skippers of the craft whose hulks litter the foreshores of northern I Corps.

Overcoming the Obstacles

Among the lighters, obsolescence was slowly overcome by introducing the new "Skilak," while as soon as reasonable data on parts usage could be compiled for the rough terrain fork lift, the spare parts problem for this equipment disappeared. The geography was changed by ambitious and skilled Seabees to accommodate land transportation, and the hydrography was altered to support river operations by the courageous crews of the dredges. Enemy action could be controlled by Marines pushing the perimeter out and maintaining good air cover and tight security support. But the weather was, as Mark Twain said, "something everybody talked about, but nobody ever did anything about." While improvements have occurred in the realm of all other obstacles mentioned, the weather, for all the talk, has not improved one whit. It was the principal item on an NSA commander's list of worries.

Additional Contributions

Not surprisingly, there were many miscellaneous support functions provided by NSA, such as the rescue of two Marine Corps pilots by the *LCU-1615* and *LCU-1619* off the Cua Viet River on 26 and 29 September 1967, or the tactical support provided by NSA's LCUs and YFUs as they redeployed tanks and heavy equipment in support of ground operations throughout I Corps. While NSA was chartered to support only U. S. and Free World forces in I Corps, its people never failed to provide visiting ships of the Fleet with water, diesel oil, or provisions to the limit of their ability. For instance, during January 1967, NSA supplied ships from the Fleet with 793,912 gallons of diesel oil and over a million gallons of fresh water. On the 17th through

the 22nd of May in 1967, when the DMZ sterile zone was being created, the *YFU-55* and *YFU-57* evacuated the Vietnamese population north of the Cua Viet. Two NSA LCM-8s were responsible for towing to Chu Lai the North Vietnamese trawler which had been forced ashore by Market Time forces 15 miles south of Chu Lai in July of 1967.

NSA harbor security forces cooperated periodically with the Vietnamese harbor police in pulling periodic surprise junk identification checks in Da Nang Harbor. NSA operations department men also represented the Commander in the joint port coordinating committee which worked with the Vietnamese Army and civilian port directors in improving aids to navigation and port facilities. Disposing of defective ordnance and supporting USAID (the foreign aid agency) were two more of the many activities engaged in by the Support Activity. The excellent communications department, in addition to providing support for the commander, also assisted from time to time in supporting the Fleet broadcasts.

NSA had come into existence for the special purpose of supplying the Third Marine Amphibious Force in I Corps when the Army said it was unable to assume the logistic task. As it became apparent that the U. S. must reduce its presence in Vietnam and look to Vietnamization of the war, the need for continued Navy support in I Corps lessened. It was determined that the Army should properly relieve the Marines of the ground action and the Navy of the support effort. The Commanding General XXIV Corps relieved the Commanding General III MAF as I Corps Commander in March of 1970. The phasing out of the Naval Support Activity, Da Nang, began in earnest in December 1969. The ACTOV, or Accelerated Turn-Over to the Vietnamese program, saw *YOG-71*, *YG-51*, *YFRN-997*, *YFR-888*, four LCUs or YFUs, three LCM-8s, and other miscellaneous small craft turned over to the Vietnamese. NSA people assisted in the training of their new operators.

Since by then the sea communications were replaced by land supply routes, on 15 February 1970, NSA Da Nang closed its detachments at Dong Ha-Cua Viet, and Sa Huynh. On 15 March, Tan My was turned over to the Army. By 26 March, all fuel supply operations in ICTZ were being run by the Army. NSAD Phu Bai was turned over on 10 April; the support organization at Chu Lai came under Army operation on 1 June. The NSA Hospital became an Army cantonment after its patients were sent in mid-May to the USS *Sanctuary*, the Marine's 1st Medical Battalion hospital, or the Army's 95th Base hospital. On 30 June 1970, just three and a half months short of five years from the date of its original commissioning, Rear Admiral R. E. Adamson, Jr., transferred all remaining logistic support functions to the U. S. Army in Vietnam. From NSA Da Nang's impressive force of over 400 officers and over 10,000 men, whose domain stretched from the DMZ to the southern boundary of Quang Ngai Province, came the Naval Support Facility, Da Nang, which, on 15 September 1970, consisted of 2,500 to 3,000 persons of the U. S. and Vietnamese navies and Vietnamese civilians. NSF Da Nang is now the second largest naval industrial establishment in Vietnam.

NSF's New Role

When Rear Admiral Adamson decommissioned NSA Da Nang, his chief of staff became Commanding Officer of the new facility, which consists principally of the SCRF and Camp Tien Sha. Here U. S. Navymen teach their counterparts in the Vietnamese Navy the skills of repair and maintenance of patrol and logistic craft which have been turned over in the ACTOV program. This will culminate in the turnover of the Small Craft Repair Facility complex.

The organization was combined in October 1970 as a joint U. S. and Vietnamese naval base, with a Vietnamese executive officer and assistant department heads, the commanding officer and department heads being U. S. officers. In a concluding memo to the U. S. Navymen remaining at NSF Da Nang, Rear Admiral Adamson stated, "Those of you remaining here will carry out the tremendously important job of preparing the Vietnamese Navy to take over responsibility for prosecuting the war effort. Training is the key to success of this undertaking, and this is where each of you becomes very important. The degree of success you have in communicating your experience and knowledge of the job to your counterpart will dictate just how soon the Vietnamese Navy will no longer require your presence."

Training is divided into three phases, the first of which is classroom instruction lasting about 12 weeks. The second phase involves on-the-job training, the Vietnamese working alongside their U. S. Navy counterparts. Phase three begins with the Vietnamese actually relieving our men. The entire process has all the earmarks of being an orderly and effective Vietnamization of the war with no Irish pennants left over to mar the splendid record built by the Navy's I Corps support activity.

Significant to any operation of this magnitude upon its completion are the lessons learned. A Joint Logistics Review Board, consisting of very senior officers from all Services, convened in 1969 and completed its review of the logistics effort in Vietnam in June of 1970. This paper does not presume to guess what the JLRB will have concluded; however, certain points appear obvious.

Lessons Learned

The first of these is that the lack of logistic tradition may well have been the key to the Navy's success in I CTZ. The Army logistic Table of Organization and Equipment (TO & E) spells out the support requirements for various Army forces. There is no guesswork and consequently little flexibility in this system. The Army operates a "push" logistic pipe line. Conversely the Navy, lacking all but the most rudimentary guidelines and having few experienced people (most of whom were to be found in a very small number of Cargo Handling Battalions), started with a small support force, extracted the maximum effort (12 hours per day, seven days a week) and then expanded as necessary to keep the troops supported. The Navy pipeline was a "pull" effort, the Naval Support Activity Commander and his staff being expected to keep the supplying logistic agent advised of their needs. While this method did not afford the admiral and his department heads a feeling of complacency, the fact that details were not spelled out in a book back on the mainland did afford them an exciting challenge. It provided motivation and stimulated ingenuity at every level of the support organization, and the job was done well. It was a manifestation of the old Navy "Can Do" spirit honed down to its finest edge. There was no fat in the NSA organization. Documentation of this effort will provide the Navy with guidelines on the minimum requirements to perform a maximum effort in any future operation of this type. In addition, it allowed the sea-going Navy to remain at maximum strength at a time when our commitments on, under, and above the surface of the seas were most demanding.

The second lesson was a revalidation of the efficacy of an arm of the Navy which earned its place on the Navy-Marine Corps team during World War II, the Seabees. The construction requirements in all of Vietnam were unbelievable in scope. Captain Merdinger described the Seabee impact on the war effort in his excellent article in last year's *Review*. Little could be added here to describe the courageous and professional job that they did as construction men and fighters. They proved themselves capable of following the Marines ashore and building airfields, cantonments, utility plants, landing ramps, piers, and even an ice cream factory.

Brown Water Logistics

NSA wrote a new chapter in the book of warfare on shallow water resupply. Assault craft found new uses as draught wagons using the waterways which criss-crossed Vietnam. New craft such as "Skilak" were pressed into service to increase the efficiency of the logistic effort. As long as there are waterways and small craft available to ply them, lack of organized land lines of communication should never again cause logistic support to falter.

Weaknesses in assault fueling techniques were discovered and corrected; this knowledge will serve us in good stead in future operations. It was reaffirmed that sheltered piers, large enough to accommodate sea-going tankers, were not necessary to support the prodigious fuel requirements of modern warfare. The Mono-buoy appears to have answered a great many questions on how to keep the seaward end of bottom lay lines functioning during the severe storms such as those which plagued I Corps during the monsoon seasons.

Ultimate Lesson

Of all the lessons learned, one stands out above all others—Man is still the ultimate answer in logistic support of large armies. For men sailed the battered YFUs to their destinations deep in the heart of hostile territory; men unloaded ships in 120-degree tropical heat during long twelve-hour shifts; men built the airstrips and carved out the roads and dredged the silt-filled sand bars from the waterways; men dived in murky and turbulent waters to locate the elusive ends of the 12-inch flexible hoses which wrapped themselves about the chains of mooring clumps; men guarded the cargo operations from the enemy and from the thieves. It was the U. S. bluejacket who gave credence to the Naval Support Activity, Da Nang motto—"They Shall Not Want."

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Part II
Annotated Bibliography

Capt Joseph H. Alexander, USMC. "An Amphibious Operation in Vietnam," Marine Corps Gazette, v. 50, no. 1 (Jan 1966), pp. 37-40.

The author discusses some of the problems that he observed in the amphibious landings the Marines made in South Vietnam during Mar-Apr 1965.

LtCol Frank E. Allgood, USMC. "MED-EVAC, Vietnam Style," Marine Corps Gazette, v. 52, no. 8 (Aug 1968), pp. 33-36.

The author believes the Marine Corps needed to develop a more sophisticated medical evacuation system.

Maj Frank E. Allgood, USMC. "Progress and Prep Fires," Marine Corps Gazette, v. 51, no. 9 (Sep 1967), pp. 29-31.

The author discusses the pros and cons of placing preparation fires on helicopter landing zones.

LtCol David L. Althoff, USMC. Interview by Mr. Bary Nelson, editor, Boeing Helicopter News, reprinted as "Helicopter Operations at Khe Sanh," Marine Corps Gazette, v. 53, no. 5 (May 1969), pp. 47-49.

The commander of Marine Medium Helicopter Squadron 262 describes helicopter support for Khe Sanh in 1968.

Capt Wayne A. Babb, USMC. "The Bridge: A Study in Defense," Marine Corps Gazette, v. 55, no. 6 (Jun 1971), pp. 16-23.

The commander of Battery F, 2d Battalion, 11th Marines describes the enemy attack at Liberty Bridge southwest of Da Nang on 19 March 1969.

1stLt Kenneth J. Babbs, USMC. "A Special Gazette Report: Vietnam," Marine Corps Gazette, v. 47, no. 7 (Jul 1963), p. 5.

A brief report on Marine helicopter operations in South Vietnam.

Maj Kent C. Bateman, USMC. "All Weather CAS: Fact or Fancy," Marine Corps Gazette, v. 56, no. 6 (Jun 1972), pp. 41-43.

The article contains a discussion on the effectiveness of the A-6 "Intruder" in providing all weather close air support.

Col Noble L. Beck, USMC. "Rice Krispies Nipped in the Bud," Marine Corps Gazette, v. 54, no. 3 (Mar 1970), p. 50.

The author describes Operation BUTTERFLY, a rice destruction program designed to deny the enemy his food supply.

LtCol Lee R. Bendell, USMC. "Marine Patrol," Marine Corps Gazette, v. 52, no. 11 (Nov 1968), pp. 99-102.

The article discusses the importance of the various types of patrols that the Marines conducted in Vietnam.

Col Edwin F. Black, USA, and Lieutenant R. P. W. Murphy, USNR. "The South Vietnamese Navy," U. S. Naval Institute Proceedings, v. 90, no. 1 (Jan 1964), pp. 52-61.

The authors discuss the Vietnamese Navy, its development, and its operations against the Viet Cong. Portions are devoted to the Vietnamese Marine Corps and its role in the amphibious assault as employed against the Viet Cong.

LCdr Ralph Blanchard, USN. "The Newsman in Vietnam," U. S. Naval Institute Proceedings, v. 95, no. 2 (Feb 1969), pp. 50-57.

The author discusses the necessity on the part of both the military and journalists to understand one another's objectives.

LtCol Charles W. Blyth, USMC. "Fuel for the Lamps of Tri Buu," reprinted from Link, the monthly house organ of the Community Development Officers in Vietnam, Marine Corps Gazette, v. 53, no. 2 (Feb 1969), p. 14.

This article describes how a communal South Vietnamese pig farm produced methane gas from manure.

Col Eugene R. Brady, USMC. "The Thread of a Concept," Marine Corps Gazette, v. 55, no. 5 (May 1971), pp. 35-42.

A discussion of tactical air medical evacuation in the Marine Corps.

Maj Daniel W. Brown, USMC. "Classified Volumes to Read," Marine Corps Gazette, v. 55, no. 12 (Dec 1971), p. 14.

A general description of the 66 volumes of "Operations of U. S. Marine Forces, Vietnam," the monthly historical summaries published by Fleet Marine Force, Pacific (Editor's Note: The volumes except for minor portions have now been declassified).

Maj K. R. Burke, USMC., et al. "Fingerprint Pilots Control Ordnance Delivery on Tanks," Marine Corps Gazette, v. 53, no. 7 (Jul 1969), p. 45.

Pilots discuss duties of Tactical Air Controllers (Airborne) versus Aerial Observers in Vietnam.

Capt Richard D. Camp, Jr., USMC. "Cordon at Phuoc Yen," Marine Corps Gazette, v. 55, no. 1 (Jan 1971), pp. 28-31.

A study of successful cordon operations in South Vietnam's northern I Corps Tactical Zone (ICTZ).

Capt Richard D. Camp, Jr., USMC. "The Listening Post: Tool for Detection," Marine Corps Gazette, v. 53, no. 8 (Aug 1969), pp. 50-51.

The tactical use of the Marine listening post to detect enemy movements.

Maj Thomas E. Campbell, USMC. "Ambush at Song O Lau," Marine Corps Gazette, v. 54, no. 1 (Jan 1970), pp. 35-39.

A Marine Corps advisor describes the ambush of the 2d Vietnamese Marine Corps Battalion by the 802d Independent VC Battalion just north of Hue on 29 June 1966.

Maj Gary L. Carlson, USMC. "Operating an Advanced Airhead," Marine Corps Gazette, v. 54, no. 5 (May 1970), pp. 63-65.

A description of the problems and solutions of operating III MAF air terminals in Vietnam.

Maj Marshall N. Carter, USMC. "To Kill or Capture," Marine Corps Gazette, v. 57, no. 6 (Jun 1973), pp. 31-35.

A discussion of the necessity to exploit quickly battlefield intelligence, giving as an example a company-size raid by the 1st Marines in January 1967.

Maj Peter H. Cathell, USMC. "Who Can Control Air Strike," Marine Corps Gazette, v. 53, no. 9 (Sep 1969), p. 44.

An aerial observer's views on controlling tactical air strikes in Vietnam.

Maj Matthew P. Caulfield, USMC. "India Six," Marine Corps Gazette, v. 53, no. 7 (Jul 1969), pp. 27-31.

Commander of Company I, 3d Battalion, 26th Marines relates his experiences in a major engagement with the enemy near Con Thien south of the Demilitarized Zone (DMZ) during late 1967.

Gen Leonard F. Chapman, Jr., USMC. "State of the Corps," Marine Corps Gazette, v. 53, no. 5 (May 1969), pp. 28-33.

The Commandant's summary of Marine achievements in Vietnam for 1968.

Capt D. R. Christensen, USMC. "A Special Gazette Report: Vietnam," Marine Corps Gazette, v. 47, no. 9 (Sep 1963), p. 5.

A one page article on the Vietnamese Marine Brigade's counterinsurgency operations. Stresses the importance of civil affairs in the counter-guerrilla environment.

Capt George R. Christmas, USMC. "A Company Commander Reflects on Operation Hue City," Marine Corps Gazette, v. 55, no. 4 (Apr 1971), pp. 34-39.

The commander of Company H, 2d Battalion, 5th Marines recalls his unit's struggle with the North Vietnamese for the city of Hue during TET 68.

Maj H. A. Christy, USMC. "Complacency, the Enemy Within," Marine Corps Gazette, v. 51, no. 11 (Nov 1967), pp. 25-26.

Major Christy points out that complacency and over confidence were two of the biggest killers in Vietnam.

LtCol Archie J. Clapp, USMC. "Shu-Fly Diary," U. S. Naval Institute Proceedings, v. 89, no. 10 (Oct 1963), pp. 42-53.

(Reprinted in this anthology)

Maj Edward J. Clarkson, USMC. "An Unknown Warrior," Marine Corps Gazette, v. 54, no. 8 (Aug 1970), pp. 38-43.

A discussion of the Chieu Hoi (VC/North Vietnamese ralliers) program in Vietnam which led to the use of these ralliers as "Kit Carson Scouts" by the Marines.

LtCol David A. Clement, USMC. "Le My, Study in Counterinsurgency," Marine Corps Gazette, v. 51, no. 7 (Jul 1967), pp. 18-24.

An article about the Marines highly successful pacification effort in the village of Le My in 1965.

Capt Leon Cohan, Jr., USMC. "Intelligence and Vietnam," Marine Corps Gazette, v. 50, no. 2 (Feb 1966), pp. 47-49.

The author feels that the Marine's intelligence training has been neglected.

Maj D. A. Colby, USMC, and Maj B. N. Bittner. USMC. "Recons Artillery," Marine Corps Gazette, v. 51, no. 1 (Jan 1967), pp. 49-51.

The two authors discuss means of employing artillery in support of reconnaissance teams.

Cdr Frank C. Collins, Jr., USN. "Maritime Support of the Campaign in I Corps," Naval Review 1971. Annapolis: U. S. Naval Institute, 1971, pp. 156-179.*

(Reprinted in this anthology)

* Although after 1968, the Naval Review became the May issue of the U. S. Naval Institute Proceedings, it will be treated in this bibliography as an annual for purposes of continuity.

Maj George E. Constantino, USMC. "Have Confidence in HSS," Marine Corps Gazette, v. 53, no. 9 (Sep 1969), pp. 47-48.

The author describes the role of the shore party personnel in the Logistic Support Area (LSA).

Capt William V. Cowan, USMC. "Killer Forest," Marine Corps Gazette, v. 54, no. 8 (Aug 1970), pp. 31-34.

A Marine advisor's recollections of working with South Vietnamese forces in the Rung Sat Special Zone 30 miles south of Saigon during 1969-1970.

Capt William V. Cowan, USMC. "Kit Carson Scouts," Marine Corps Gazette, v. 53, no. 10 (Oct 1969), pp. 30-32.

The article describes the use of former VC and North Vietnamese operating with Marine units in Vietnam.

Maj Alfred J. Croft, USMC. "Date-Line...Vietnam," Marine Corps Gazette, v. 47, no. 10 (Oct 1963), p. 18.

A U. S. Marine advisor's account of a Vietnamese Marine heliborne assault operation conducted in Quang Ngai Province in 1963.

Col Victor J. Croizat, USMC. "Vietnam in Review," Marine Corps Gazette, v. 42, no. 1 (Jan 1958), pp. 53-58.

Basically a political discussion of post-Geneva South Vietnam by the first U. S. Marine advisor to South Vietnam's Armed Forces.

Col Victor J. Croizat, USMC (Ret). "Vietnamese Naval Forces: Origin of the Species," U. S. Naval Institute Proceedings, v. 99, no. 2 (Feb 1973), pp. 48-58.

(Reprinted in this anthology)

Col Victor J. Croizat, USMC (Ret). "Origin of the Vietnamese Marines," Marine Corps Gazette, v. 54, no. 12 (Dec 1970), p. 14.

The author gives a one page summary of the origins of the Vietnamese Marine Corps. For a more detailed account see the same author's article reprinted in this anthology.

Col Marion C. Dalby, USMC. "Combat Hotline," Marine Corps Gazette, v. 53, no. 4 (Apr 1969), pp. 27-30.

A study of the employment of helicopters in support of the 3d Marine Division's Task Force Delta's operations in 1968.

Col Marion C. Dalby, USMC. "Task Force Hotel's Inland Beachheads," Marine Corps Gazette, v. 53, no. 1 (Jan 1969), pp. 35-38.

A discussion of the 3d Marine Division's operations in Quang Tri Province in 1968, whereby Marines adapted amphibious techniques for helicopter operations.

1stLt Crane Davis, USMC. "Bridge at Cam Le," Marine Corps Gazette, v. 54, no. 2 (Feb 1970), pp. 33-38.

On 23 August 1968, the 38th NVA Regiment attacked the Cam Le Bridge in a drive towards Da Nang. The 27th Marines held and then counterattacked, defeating the enemy force.

1stLt Gordon M. Davis, USMC. "Dewey Canyon," Marine Corps Gazette, v. 53, no. 7 (Jul 1969), pp. 32-40.

A narrative study of the 9th Marines operation into the region south of Khe Sanh.

MajGen Raymond G. Davis, USMC, and 1stLt Sheridan W. Bell, III, USMC. "Combined Operations with ARVN," Marine Corps Gazette, v. 53, no. 10 (Oct 1969), pp. 18-29.

A detailed discussion of combined operations between the 3d Marine Division and South Vietnamese forces in Quang Tri Province in 1968.

MajGen Raymond G. Davis, USMC, and 1stLt Harold W. Brazier, II, USMC. "Defeat of the 320th," Marine Corps Gazette, v. 53, no. 3 (Mar 1969), pp. 22-30.

Describes the use of the fire support base concept in the summer of 1968, when the 3d Marine Division commanded by General Davis defeated the 320th NVA Division in the DMZ area.

MajGen Raymond G. Davis, USMC, and Capt R. O. Camp, USMC. "Marines in Assault by Helicopter," Marine Corps Gazette, v. 52, no. 9 (Sep 1968), pp. 22-28.

The authors use an RLT operation in Vietnam as a backdrop to illustrate a composite of assault techniques.

MajGen Raymond G. Davis, USMC, and 1stLt James L. Jones, Jr., USMC. "Employing the Recon Patrol," Marine Corps Gazette, v. 53, no. 5 (May 1969), pp. 41-45.

A study of STING RAY and KEY HOLE operations by 3d Marine Division reconnaissance elements.

Col Bryce F. Denno, USA. "Viet Cong Defeat at Phuoc Chau," Marine Corps Gazette, v. 49, no. 3 (Mar 1965), pp. 34-40.

The former senior U. S. advisor to I Corps recounts a 1962 battle for a small semi-isolated government outpost in northern South Vietnam. Includes a brief analysis of the tactics employed by both the government and the Communist forces involved in the battle.

Editors. "The War in Vietnam: Cam Ne (4)," Marine Corps Gazette, v. 49, no. 10 (Oct 1965), pp. 28-30.

An explanation of Marine actions in respect to the burning of Cam Ne, a village south of Da Nang, which took place in August 1965 and received widespread publicity in the United States. The editorial article is based upon a report by LtCol Verle E. Ludwig, the officer who commanded the 1st Battalion, 9th Marines at the time the incident occured.

Editors. "The War in Vietnam: Civic Action," Marine Corps Gazette, v. 49, no. 10 (Oct 1965), pp. 30-32.

A brief pictorial account of the Marine Corps Civic Action program as it was being instituted in Vietnam during the summer and fall of 1965.

1stLt Ord Elliot, USMC. "Why We Are in Vietnam," Marine Corps Gazette, v. 52, no. 10 (Oct 1968), pp. 47-51.

Lieutenant Elliot offers a well documented review of U. S. foreign policy that led to our involvement in Vietnam.

LtCol D. L. Evans, USMC. "USMC Civil Affairs in Vietnam, a Philosophical History," Marine Corps Gazette, v. 52, no. 3 (Mar 1968), pp. 40-45.

(Reprinted in this anthology)

Capt Fred T. Fagan, USMC. "Company Commanders Notebook," Marine Corps Gazette, v. 54, no. 12 (Dec 1970), pp. 34-38.

A detailed account of the combat techniques of Company K, 3d Battalion, 7th Marines in 1968.

Bernard B. Fall. "Street Without Joy," excerpts from the author's book by the same title, Marine Corps Gazette, v. 46, no. 1 (Jan 1962), pp. 34-42.

An analysis of a French amphibious operation on the Vietnamese coast north of Hue.

LtCol Gilbert W. Ferguson, USMC. "Guns at Da Nang," Marine Corps Gazette, v. 65, no. 2 (Feb 1966), pp. 27-31.

The author discusses some of the early problems the artillery faced when it first arrived at Da Nang in the spring of 1965.

Maj Raymond F. Findlay, Jr., USMC. "Behind the Hedgerow," Marine Corps Gazette, v. 53, no. 4 (Apr 1969), pp. 22-26.

A study in the employment of the ambush.

LCdr Clark M. Gammell, USN. "Naval and Maritime Events, 1 July 1966 - 30 June 1967," Naval Review 1968. Annapolis: U. S. Naval Institute, 1968, pp. 239-272.

This chronology includes Marine Corps operations in Vietnam.

Vo Nguyen Giap. "Vo Nguyen Giap on Guerrilla War," Marine Corps Gazette, v. 46, nos. 4,5,6,7 (Apr-Jul 1962).

Four parts of a book condensation (copyright 1962, Marine Corps Association) which deals with basic North Vietnamese guerrilla doctrines and strategies as articulated by Giap.

Maj Wallace M. Greene, III, USMC. "Countermeasures against Mines and Bobbytraps," Marine Corps Gazette, v. 53, no. 12 (Dec 1969), pp. 31-37.

A discussion of mines and boobytraps employed by the enemy in Vietnam and techniques to combat these weapons.

LtCol Samuel L. Grier, USMC. "Black Pajama Intelligence," Marine Corps Gazette, v. 51, no. 4 (Apr 1967), pp. 36-40.

A short article on the Viet Cong intelligence network.

LtCol Samuel L Grier, USMC. "Silent Victory," Marine Corps Gazette, v. 51, no. 9 (Sep 1967), pp. 40-41.

The author predicts that when the shooting stops the war will continue by other means since the Communists will not admit defeat.

LtCol J. W. Hammond, Jr., USMC. "Combat Journal," Part 1, Marine Corps Gazette, v. 52, no. 7 (Jul 1968), pp. 20-29.

Lieutenant Colonel Hammond recounts the heavy fighting that the 2d Battalion, 4th Marines encountered around Con Thien during the period Aug - Sep 1967.

LtCol J. W. Hammond, Jr., USMC. "Combat Journal," Conclusion, Marine Corps Gazette, v. 52, no. 8 (Aug 1968), pp. 46-51.

This second part of Lieutenant Colonel Hammond's two-part article covers 2/4's operations during the latter part of October 1967.

LtCol Peter L. Hilgartner, USMC. "Amphibious Doctrine in Vietnam," Marine Corps Gazette, v. 53, no. 1 (Jan 1969), pp. 28-31.

(Reprinted in this anthology)

Maj William C. Holmberg, USMC. "Civic Action," Marine Corps Gazette, v. 50, no. 6 (Jun 1966), pp. 20-28.

An interesting article on the Marines early involvement in civic action in Vietnam.

Capt K. P. Huff, USNR. "Building the Advanced Base at Da Nang," Naval Review 1968. Annapolis: U. S. Naval Institute, 1968, pp. 89-113.

Discussion of U. S. Navy logistical support of III MAF 1965-1966. Detailed discussion of initial III MAF efforts which expanded to the establishment of the Naval Support Activity, Da Nang.

Col William G. Johnson, USMC. "Helicopter COC," Marine Corps Gazette, v. 51, no. 7 (Jul 1967), pp. 25-28.

The author explains the need for forward helicopter combat operations centers in Vietnam.

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This article discusses operations in Vietnam against both
rrillas and organized forces, including both VC units and
forces. It outlines some of the requirements involved in
planning, organization, and execution of successful combat
rations against the enemy in Vietnam.

Richard S. Kaye, USMC. "A Direction for Division Recon,"
Marine Corps Gazette, v. 54, no. 4 (Apr 1970), pp. 34-36.

A study of techniques for employing the division recon-
ssance battalion.

t Allan K. Kernins, USMC. "Inflight Refuel," Marine
Corps Gazette, v. 56, no. 7 (Jul 1972), p. 44.

An account of VMGR-152's Da Nang-based KC-130 "Hercules"
craft operations in Vietnam.

Blain D. King, USMC. "Force Comm in Vietnam," Marine
Corps Gazette, v. 56, no. 2 (Feb 1973), pp. 35-38.

The author describes the communication networks of III
in 1968-1969.

ol Richard V. Kriegel, USMCR. "Revolutionary Development,"
Marine Corps Gazette, v. 51, no. 3 (Mar 1967), pp. 35-43.

The author describes the development of the Revolutionary
elopment program, its techniques, and its goals. He believes
t the program may be South Vietnam's best chance for victory.

ol Richard V. Kriegel, USMCR. "Vietnamese Attitudes and Be-
havior," Marine Corps Gazette, v. 53, no. 8 (Aug 1969), pp.
25-31.

A study of the Vietnamese people, their feelings, and
alties.

J. R. Laws, USMC. "One Response to Personal Response,"
Marine Corps Gazette, v. 52, no. 3 (Mar 1968), pp. 26-28.

The article points out that before the Personal Response
gram can work, Marine officers and senior NCOs must learn
they can about the country and the people.

ol William G. Leftwich, Jr., USMC. "An Afternoon with Ber-
nard Fall," Marine Corps Gazette, v. 53, no. 2 (Feb 1969),
pp. 25-27.

The author's personal interview with noted writer Ber-
d Fall concerning the Vietnam war.

LtCol William G. Leftwich, Jr., USMC. "...and a few Marines," U. S. Naval Institute Proceedings, August 1968, v. 9-, no. 8, pp. 34-45.

Lieutenant Colonel Leftwich reviews the early advisory effort in South Vietnam and outlines the qualities and capabilities that are required in an advisor.

Maj William G. Leftwich, Jr., USMC. "Decision at Duc Co," Marine Corps Gazette, v. 51, no. 2 (Feb 1967), pp. 34-38.

An excellent account of the Vietnamese Marines' victory over NVA regulars at Duc Co in August of 1965.

LtCol W. G. Leftwich, USMC. "Management by Suggestion," Marine Corps Gazette, v. 52, no. 11 (Nov 1968), pp. 24-25.

Lieutenant Colonel Leftwich discusses the management problems that U. S. advisors encountered while serving in Vietnam.

LtCol Verle E. Ludwig, USMC. "Bus to Tra Khe," Marine Corps Gazette, v. 50, no. 10 (Oct 1966), pp. 32-36.

A fine account of III MAF's first GOLDEN FLEECE (rice protection) operation.

Capt R. E. Luehrs, USN. "Marine Medical Evacuation," Marine Corps Gazette, v. 53, no. 5 (May 1969), pp. 56-57.

Describes the Marine medical evacuation system in Vietnam.

Capt Herbert G. Lyles, USMC. "Civic Action Progress Report," Marine Corps Gazette, v. 53, no. 9 (Sep 1969), p. 52.

A report on III MAF's use of USMCR Civic Action Fund.

Maj Bruce M. MacLaren, USMC. "Tank Tactics for Unit Leaders," Marine Corps Gazette, v. 53, no. 7 (Jul 1969), pp. 41-44.

A discussion of the employment of tanks in Vietnam.

Maj Bruce M. MacLaren, USMC. "Reconnaissance by Tankers," Marine Corps Gazette, v. 53, no. 3 (Mar 1969), pp. 16-17.

Describes the employment of tanks in northern I Corps Tactical Zone in 1968.

Cdr F. O. McClendon, Jr., MSC, USN. "Doctors and Dentists, Nurses and Corpsmen in Vietnam," Naval Review 1970. Annapolis: U. S. Naval Institute, 1970, pp. 277-289.

Major portions deal with medical support of the Marines in I Corps to include hospital ships, shore hospital facilities, field medical support, and the medical civic action program.

MajGen Keith B. McCutcheon, USMC. "Air Support for III MAF," Marine Corps Gazette, v. 51, no. 8 (Aug 1967), pp. 19-23.

Summarizes the many and diversified tasks being performed by the 1st Marine Aircraft Wing in South Vietnam.

LtGen Keith B. McCutcheon, USMC. "Marine Aviation in Vietnam, 1962-1970," Naval Review 1971. Annapolis: U. S. Naval Institute, 1971, pp. 122-155.

(Reproduced in this anthology)

LtCol R. E. Mack, USA. "Minbotrap," Marine Corps Gazette, v. 51, no. 7 (Jul 1967), pp. 39-42.

An excellent article covering the unorthodox employment of mines and booby traps by the Viet Cong.

Col J. F. McQuillen, USMC. "Indochina," Marine Corps Gazette, v. 38, no. 12 (Dec 1954), pp. 14-21.

Part one of a geographical, political, and military summary of the French-Indochina War. Part one deals primarily with the origins of French influence in the region.

Col J. F. McQuillen, USMC. "Indochina," Marine Corps Gazette, v. 39, no. 1 (Jan 1955), pp. 48-62.

Part two of the previously cited article. The author concerns himself primarily with the French Indochina War in this part. Abundantly illustrated with combat photographs.

Maj William T. Macy, USMC. "Telling it like it Really is," Marine Corps Gazette, v. 54, no. 1 (Jan 1970), pp. 47-48.

A discussion of Viet Cong and NVA ralliers (Hoi Chanhs) in I Corps.

LtCol Paul A. Manning, USMC. "VMCJ," Marine Corps Gazette, v. 56, no. 10 (Oct 1972), pp. 40-43.

A history of Marine Compositive Reconnaissance Squadrons' operations with emphasis on VMCJ-1 in Vietnam August 64 - May 71.

James D. Mason. "VC Trail," Marine Corps Gazette, v. 53, no. 4 (Apr 1969), pp. 38-41.

Discussion of booby traps employed by Viet Cong.

Col Bruce J. Matheson, USMC. "Airframes versus Boatspaces," Marine Corps Gazette, v. 53, no. 10 (Oct 1969), pp. 46-47.

Discusses the USMC ground-air officer debate on employment of helicopters in Vietnam.

Capt Charles J. Merdinger, CEC, USN. "Civil Engineers, Seabees, and Bases in Vietnam," Naval Review, 1970. Annapolis: U. S. Naval Institute, 1970, pp. 224-275.

A major portion deals with the Naval Construction Regiment's efforts in support of III MAF operations in ICTZ during 1965-1969.

Gen Vernon E. Megee, USMC (Ret). "The Genesis of Air Support in Guerrilla Operations," U. S. Naval Institute Proceedings, v. 91, no. 6 (Jun 1965), pp. 48-59.

An account of the origins of Marine air support as practiced against guerrillas in Nicaragua between 1927-1932. Mentions connections to air operations in Vietnam war only in passing. Does not draw parallels.

LCdr Lawrence P. Metcalf, USN. "Corpsman: Numbah-wun Bac-si!," Marine Corps Gazette, v. 54, no. 7 (Jul 1970), pp. 12-13.

Discussion of the duties of a corpsman with the Combined Action Program.

Col Bruce F. Meyers, USMC. "Jungle Canopy Operations," Marine Corps Gazette, v. 53, no. 7 (Jul 1969), pp. 20-26.

A description of 26th Marines operations in "Happy Valley" 30 miles to the west of Da Nang and the engagement with elements of the 2d NVA Division in Operation MAMELUKE THRUST in May-July 1968.

Maj Philip C. Mikkelson, USMC. "Fingerprint Pilots Challenged," Marine Corps Gazette, v. 53, no. 11 (Nov 1969), pp. 78-80.

Discussion of Aerial Observer - Tactical Air Controller (Airborne) duties.

LCdr Robert E. Munford, Jr., USN. "Jackstay: New Dimensions in Amphibious Warfare," Naval Review, 1968. Annapolis: U. S. Naval Institute, 1968, pp. 68-87.

A naval officer's view of the 1966 SLF Operation JACKSTAY in the Rung Sat Special Zone.

LtCol Dennis J. Murphy, USMC. "Let's Practice What We Preach about Helicopter Operations," Marine Corps Gazette, v. 53, no. 8 (Aug 1969), pp. 18-24.

A discussion on the proper employment of helicopters in combat environments.

Maj John P. Murtha, USMC. "Combat Intelligence in Vietnam," Marine Corps Gazette, v. 52, 1 (Jan 1968), pp. 30-34.

The author makes the point that it is necessary that the intelligence officer remain in the job long enough to learn the tactics of the particular enemy that he is fighting.

Maj Donald J. Myers, USMC. "The Pacification of Cam Lo," Marine Corps Gazette, v. 53, no. 10 (Oct 1969), pp. 50-51.

A company commander discusses his relationship with South Vietnamese Regional and Popular Forces in Quang Tri Province.

Maj George D. Navadel, USMC. "Prior to Decisive Engagement," Marine Corps Gazette, v. 54, no. 11 (Nov 1970), pp. 56-57.

A description of 3d Battalion, 9th Marines engagement with the NVA in northern Quang Tri Province in May 1967.

Maj Robert V. Nicoli, USMC. "Fire Support Base Development," Marine Corps Gazette, v. 53, no. 9 (Sep 1969), pp. 38-43.

(Reprinted in this anthology)

"1967 Seventh Fleet Summary," Naval Review, 1969. Annapolis: U. S. Naval Institute, 1969, pp. 371-385.

Summary includes special landing forces amphibious operations in Vietnam and naval gunfire actions in ICTZ and the DMZ.

Maj Charles F. Norton, USMC. "Mortar Battery Still Useful," Marine Corps Gazette, v. 54, no. 12 (Dec 1970), pp. 48-49.

Author discusses use of the 107mm mortar in the fire support base concept.

Capt G. W. O'Dell, USMC. "Lessons learned in Vietnam," Marine Corps Gazette, v. 57, no. 4 (Apr 1973), pp. 50-51.

Author describes the employment of reconnaissance teams for intelligence gathering.

Capt William H. Parks, USMC. "Viet Cong Village Law and Order," Marine Corps Gazette, v. 53, no. 10 (Oct 1969), p. 53.

A discussion of Viet Cong judicial procedures used in villages under their control.

BGen O. F. Peatross, USMC. "Victory at Van Tuong Village," Naval Review, 1968. Annapolis: U. S. Naval Institute, 1968, pp. 2-13.

A brief account of the Marines' first major battle against the Viet Cong in Operation STARLITE.

BGen O. F. Peatross, USMC and Col W. G. Johnson, USMC. "Operation UTAH," Marine Corps Gazette, v. 50, no. 10 (Oct 1966), pp. 20-27.

The article provides an excellent example of the rapid reaction to intelligence during Operation UTAH when Marine Task Force Delta defeated the 36th NVA Regiment west of Chu Lai in March 1966.

James H. Pickerell. "Marine Advisor: Vietnam," Marine Corps Gazette, v. 48, no. 4 (Apr 1964), pp. 24-28.

The author discusses the role of the individual Marine advisor in South Vietnam. The article was based on interviews with Captain Donald Koelper, an advisor who was killed while earning the Navy Cross in February 1964.

James H. Pickerell and Robert Pearman. "The Marines War in Vietnam," Marine Corps Gazette, v. 48, no. 12 (Dec 1964), pp. 42-47.

A brief pictorial account of a Marine helicopter assault operation in I Corps during 1964.

LtCol W. A. Piper, Australian Army. "Fire Support Bases: A Tactical Appraisal," Marine Corps Gazette, v. 54, no. 12 (Dec 1970), pp. 26-31.

A detailed discussion of the fire support base concept.

LtCol William Plaskett, Jr., USMC. "New Life for Towed 155 How," Marine Corps Gazette, v. 53, no. 2 (Feb 1969), p. 51.

Author discusses airborne employment of artillery in Vietnam.

MajGen Jonas M. Platt, USMC. "Military Civic Action," Marine Corps Gazette, v. 54, no. 9 (Sep 1970), pp. 20-26.

A discussion on military civic action with illustrations from the Marines' civic action program in I Corps.

Maj Thomas M. Pratt, III, USMC. "Population and Resources Control," Marine Corps Gazette, v. 54, no. 9 (Sep 1970), pp. 35-39.

Commander of Company E, 2d Battalion, 1st Marines in Vietnam during August 66 - September 67 relates his experiences in denying the enemy access to Vietnamese hamlets by conducting censuses and employing population control devices.

Maj John E. Regal, USMC. "Surprise for the 803d," Marine Corps Gazette, v. 54, no. 4 (Apr 1970), pp. 29-33.

A description of Company K, 3d Battalion, 1st Marines engagement with elements of the 803d NVA Regiment in the region of the Cua Viet River on 2 February 1968.

Capt J. W. Rider, USMC. "Helicopters in Vietnam," Marine Corps Gazette, v. 51, no. 10 (Oct 1967), pp. 30-32.

Capt Rider comments on the misuse of helicopters in Vietnam.

Maj Ernest G. Rivers, USMC, and Capt Marshall N. Carter, USMC. "Camaraderie Among Marines," Marine Corps Gazette, v. 54, no. 9 (Sep 1970), p. 50.

A short discussion of the Vietnamese Marine Corps.

LCdr James H. Robinson, USN. "Recording Naval History in Vietnam," U. S. Naval Institute Proceedings, v. 95, no. 9 (Sep 1969), pp. 144-145.

Description of monthly historical reports prepared on U. S. Naval Actions in Vietnam.

"Rock Pile," Marine Corps Gazette, v. 51, no. 1 (Jan 1967), pp. 40-42.

Pictorial featuring the area north of the Rock Pile with comments by Lieutenant Colonel William Masterpool (3d Battalion, 4th Marines).

Maj Lane Rogers, USMC. "The Enemy," Marine Corps Gazette, v. 50, no. 3 (Mar 1966), pp. 51-55.

The article reviews Viet Cong doctrine and tactics and offers several suggestions for countering them.

LtCol Albert C. Smith, Jr., USMC. "Rung Sat Special Zone, Vietnam's Mekong Delta," U. S. Naval Institure Proceedings, v. 94, no. 4 (Apr 1968), pp. 116-122.

The author discusses the activities in the Rung Sat area of a joint U. S. Marine, Navy, and Army advisory team under the operational control of the U. S. Naval Advisory Group in Saigon.

Maj Don C. Satcher, USMC. "Ugly ONTOS is Underrated," Marine Corps Gazette, v. 53, no. 11 (Nov 1969), pp. 88-89.

Author discusses the employment of the ONTOS in Vietnam.

1stLt Charles J. Schneider, Jr., USMC. "Radars for the Artilleyman," Marine Corps Gazette, v. 54, no. 3 (Mar 1970), pp. 34-36.

A discussion of ground surveillance and counter-battery radars used in the Marine Corps and their employment in Vietnam.

Col Martin J. Sexton, USMC, and LtCol Joseph E. Hopkins, USMC. "Assault at Mutter's Ridge," Marine Corps Gazette, v. 54, no. 3 (Mar 1970), pp. 20-25.

Authors describe the 2d Battalion, 4th Marines action in a multi-battalion operation just south of the DMZ against elements of the 27th NVA Regiment in December 1968.

Col Martin J. Sexton, USMC. "Sapper Attack," Marine Corps Gazette, v. 53, no. 9 (Sep 1969), pp. 28-31.

A detailed study of the planning and execution of an enemy sapper attack on 24 February 1969.

Maj Carl A. Shaver, USMC. "Reflections of a Company Commander," Marine Corps Gazette, v. 53, no. 11 (Nov 1969), pp. 29-34.

Commander of Company L, 3d battalion, 7th Marines relates his combat experiences to the principles of warfare in Vietnam.

Jack Shulimson. "Vietnam Historical Data Base," Marine Corps Gazette, v. 53, no. 2 (Feb 1969), pp. 43-45.

A discussion of historical records available for research and writing on the Marine Corps participation in Vietnam.

Col Edwin H. Simmons, USMC. "The Marines and Crisis Control," U. S. Naval Institute Proceedings, v. 91, no. 11 (Nov 1965), pp. 26-35.

A discussion of the Marine Corps' role in the Vietnam crisis which developed in early 1965 and culminated in their landing at Da Nang in March. The author places the use of U. S. Marine amphibious forces in their historical perspective.

BGen Edwin H. Simmons, USMC. "Marine Corps Operations in Vietnam, 1965-1966," Naval Review, 1968. Annapolis: U. S. Naval Institute, 1968, pp. 2-35.

(Reprinted in this anthology)

BGen Edwin H. Simmons, USMC. "Marine Corps Operations in Vietnam, 1967," Naval Review, 1969. Annapolis: U. S. Naval Institute, 1969, pp. 112-141.

(Reprinted in this anthology)

BGen Edwin H. Simmons, USMC. "Marine Corps Operations in Vietnam, 1968," Naval Review, 1970. Annapolis: U. S. Naval Institute, 1970, pp. 292-320.

(Reprinted in this anthology)

BGen Edwin H. Simmons, USMC. "Marine Corps Operations in Vietnam, 1969-1972," Naval Review, 1973. Annapolis: U. S. Naval Institute, 1973, pp. 194-223.

(Reprinted in this anthology)

Howard R. Simpson. "The Guerrilla and His World," U. S. Naval Institute Proceedings, v. 95, no. 8 (Aug 1969), pp. 42-53.

A study of the Communist guerrilla in Southeast Asia.

LtCol Thomas H. Simpson, USMC, and Capt David LaBoissiere, USMC. "Fire Support in Riverine Operations," Marine Corps Gazette, v. 53, no. 8 (Aug 1969), pp. 43-47.

Description of armament and related utilization in Vietnam of the Navy's riverine craft.

LCpl Pete Siva, Jr., USMC. "An Ordinary Day in Vietnam," Marine Corps Gazette, v. 56, no. 2 (Feb 1972), pp. 53-54.

A Marine of the Seventh Fleet's Special Landing Force relates his feelings before commitment to battle.

Norman Sklarewitz. "Counter-insurgency: Marines at Work in Vietnam," Marine Corps Gazette, v. 47, no. 1 (Jan 1963), pp. 56-57.

A photographic article covering Marine helicopter task unit at Da Nang.

Norman Sklarewitz. "Dateline Da Nang: The Choppers Move North," Marine Corps Gazette, v. 47, no. 1 (Jan 1963), p. 3.

A brief account of the Marine helicopter task unit's move north to Da Nang. Includes a cursory analysis of operations in the Mekong Delta.

Norman Sklarewitz. "Dateline: Soc Trang," Marine Corps Gazette, v. 46, no. 12 (Dec 1962), pp. 54-56.

A pictorial account of the Marine helicopter task unit at Soc Trang.

Col Richard B. Smith, USMC. "Leatherneck Square," Marine Corps Gazette, v. 53, no. 8 (Aug 1968), pp. 34-42.

Author describes operations of the 9th Marines in northern Quang Tri Province during 1967-1968.

Capt William R. Smith, USMC. "Why the Bridge," Marine Corps Gazette, v. 54, no. 6 (Jun 1970), pp. 34-37.

Study of the methods of psychology employed by the Viet Cong on the Vietnamese villagers.

Capt K. J. Snyder, USMC. "Friendship: A Principle of War," Marine Corps Gazette, v. 52, no. 3 (Mar 1968), pp. 36-40.

Capt Snyder recounts the 2d Battalion, 7th Marines' successful civic action program in the village of Long Phu.

Col James B. Soper, USMC (Ret). "A View from FMFPac of Logistics in the Western Pacific, 1965-1971," Naval Review, 1972. Annapolis: U. S. Naval Institute, 1972, pp. 222-239.

(Reprinted in this anthology)

Col Norman K. Stanford, USMC. "Bamboo Brigades," Marine Corps Gazette, v. 50, no. 3 (Mar 1966), pp. 41-47.

Colonel Stanford outlines the pacification aspects of the Marine Corps' counterinsurgency operations in Vietnam.

LtCol John C. Studt, USMC. "Battalion in the Attack," Marine Corps Gazette, v. 54, no. 7 (Jul 1970), pp. 39-44.

A description of the 3d Battalion, 26th Marines attack against Hill 881 North on 13 April 68, one of the major engagements during the siege at Khe Sanh.

Maj Mark A. Swearenger, USA. "Forty Days at Khe Sanh," Marine Corps Gazette, v. 57, no. 4 (Apr 1973).

Artillery liaison officer of 2d Battalion, 94th Artillery, USA recalls his role in the Khe Sanh fire support coordination center in 1968.

Maj Merrill A. Sweitzer, Jr., USMC. "The Tribulations of an S-4," Marine Corps Gazette, v. 54, no. 3 (Mar 1970), p. 53.

Recollections of an officer-in-charge of logistics support area (LSA) during combat operations in Vietnam.

Lt Harold S. Terrance, USN. "Naval and Maritime Events, 1 July 1967 - 30 June 1968," Naval Review, 1969. Annapolis: U. S. Naval Institute, 1969, pp. 281-323.

Chronology includes actions of III MAF and Special Landing Forces.

LtCol Vincent R. Tocci, USAF. "Understanding the War in Southeast Asia," Reprint from Armed Forces Journal issue of 9 May 1970 in Marine Corps Gazette, v. 54, no. 7 (Jul 1970), pp. 34-38.

A discussion on U. S. involvement against Communist insurgency in Southeast Asia. Provides parameters to gauge progress in winning the war there.

Maj Gary E. Todd, USMC. "Let's Talk Marine Priorities," Marine Corps Gazette, v. 53, no. 8 (Aug 1969), pp. 51-52.

Discussion of manpower priorities as withdrawal from Vietnam begins.

Maj Gary E. Todd, USMC. "Planning and Exploitation," Marine Corps Gazette, v. 53, no. 12 (Dec 1969), pp. 18-26.

Discussion of battlefield tactics for encirclement, isolation, and distruction of enemy forces in Vietnam.

Maj Gary E. Todd, USMC. "Tet: A Psychological Prep," Marine Corps Gazette, v. 54, no. 1 (Jan 1970), p. 47.

Psychological warfare practiced by the VC/NVA prior to the enemy Tet offensive, January - February 1968.

Maj Gary E. Todd, USMC. "Three-Point Program for Vietnam," Marine Corps Gazette, v. 54, no. 4 (Apr 1970), pp. 46-47.

Discussion on the merits of the combined action programs to be unified under a single combined command and expanded as U. S. forces withdraw from Vietnam.

LCdr James E. Toms, USN. "Justice in the Battle Zone," U. S. Naval Institute Proceedings, v. 95, no. 7 (Jun 1969), pp. 53-57.

Legal officer of Naval Support Activity, Da Nang recalls problems of administrating legal justice in a combat zone in 1967-1968.

Col William L. Traynor, USMC. "The Political War in Vietnam," Marine Corps Gazette, v. 51, no. 7 (Aug 1967), pp. 24-27.

Author discusses the value of the Revolutionary Development Cadre Group in gaining the support of the people of Vietnam.

LtCol G. H. Turley, USMC, and Capt M. R. Wells, USMC. "Easter Invasion 1972," Marine Corps Gazette, v. 57, no. 3 (Mar 1973), pp. 18-29.

(Reprinted in this anthology.)

"Up from the Ranks," Marine Corps Gazette, v. 54, no. 11 (Nov 1970), pp. 44-45.

Narrative on the combat action of Sergeant Alfredo Gonzales, awarded the Medal of Honor, posthumously. Describes his combat actions with III MAF from Christmas 1967 to his death on 3 February 1968.

LtCol Leon N. Utter, USMC. "Solid Contact for 2/7," Marine Corps Gazette, v. 50, no. 4 (Apr 1966), pp. 25-30.

An excellent account of a counter-ambush action at Ky Phu (Operation HARVEST MOON) one week before Christmas 1965.

Capt Paul K. Van Riper, USMC. "Riot Control Agents in Offensive Operations," Marine Corps Gazette, v. 56, no. 4 (Apr 1972), pp. 18-23.

Author describes employment of tear gas against elements of the 141st NVA Regiment southwest of Da Nang in February 1969.

Maj Davis G. Vest, USMC. "Toward a Fighter Posture for the Seventies," Marine Corps Gazette, v. 54, no. 12 (Dec 1970), pp. 18-25.

Article uses a hypothetical case describing how the war in Vietnam would have been different if the NVA had had air superiority.

LtCol David H. Wagner, USMC. "A Handful of Marines," Marine Corps Gazette, v. 52, no. 3 (Mar 1968), pp. 44-46.

An excellent brief discussion of the goals of the Combined Action Program - "work yourself out of a job."

Maj George F. Warren, USMC. "Return to Conventional Warfare," Marine Corps Gazette, v. 53, no. 9 (Sep 1969), pp. 34-37.

A description of 2d Battalion, 4th Marines operations in the Cua Viet area March 1968.

Capt F. J. West, Jr., USMCR. "Fast Rifles," Marine Corps Gazette, v. 51, no. 10 (Oct 1967), pp. 38-44.

Excellent account of a combined action platoon's operations in the village of Binh Nghia in Quang Ngai Province during the summer of 1966.

Francis J. West, Jr. "Stingray 70," U. S. Naval Institute Proceedings, v. 95, no. 11 (Nov 1969), pp. 26-37.

Author describes the development of the "Sting Ray" technique whereby small reconnaissance elements were able to direct supporting arms on large enemy forces.

Col Edwin B. Wheeler, USMC. "Vietnam Campaign, 1965," Marine Corps Gazette, v. 49, no. 11 (Nov 1965), pp. 90-92.

A synopsis of early Marine operations in the Republic of Vietnam. The author briefly discusses pacification, search and -estroy operations, and heliborne assaults in the guerrilla envirnment which confronted the U. S. Marines during 1965.

LtCol Michael E. White, USMC. "Vietnamese Riverine Forces Taking Up the Slack," Marine Corps Gazette, v. 54, no. 12 (Dec 1970), pp. 41-42.

Author describes the formation of a Vietnamese Navy and Marine Corps Amphibious Task Force.

Capt Richard C. Williams, USN. "How to Succeed in the Construction Business by Really Trying," U. S. Naval Institute Proceedings, v. 95, no. 9 (Sep 1969), pp. 72-80.

The U. S. role in the building of port facilities in South Vietnam.

Capt R. E. Williamson, USMC. "A Briefing For Combined Action," Marine Corps Gazette, v. 52, no. 3 (Mar 1968), pp. 41-43.

The author feels that the combined action program offers the best chance to eliminate the Viet Cong at the grass root level.

Capt David F. Winecoff, USMC. "Body Armor or Mobility," Marine Corps Gazette, v. 55, no. 6 (Jun 1971), pp. 28-31.

Commander of Company H, 2d Battalion, 9th Marines discusses Operation DEWEY CANYON, and plus and minus factors of body armor in combat.

Col Don P. Wyckoff, USMC. "Bloodless Weapon," U. S. Naval Institute Proceedings, v. 95, no. 9 (Sep 1969), pp. 65-69.

Author discusses military employment of psychological warfare in Vietnam.

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