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*Short History of the Pacific Theater of Operations
for the U.S. Marine Corps, Vietnam
and 1970 Summary*

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OPERATIONS OF U. S. MARINE FORCES

VIETNAM

DECEMBER 1970

AND

1970 SUMMARY

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This is a summary of activities of US Marine Corps forces in Vietnam for the month of December 1970. Its purpose is to update similar historical reports covering the period from March 1965 through November 1970.

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Commencing with the report for January-February 1971,
Operations of U. S. Marine Forces, Vietnam will be published bimonthly.

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SUMMARY

While Marine activities in RVN during December essentially fell in line with operational trends evident for the past year, 1970 itself was a period encompassing many significant changes, either within III MAF or directly affecting the Force. In the main, these alterations—reduction of USMC forces, marked RVNAF improvement, reduction of enemy strength, tangible rural development and pacification progress, and a significant shift in enemy tactics—reflect dynamic progress toward achieving Pacific Command goals for Vietnam.

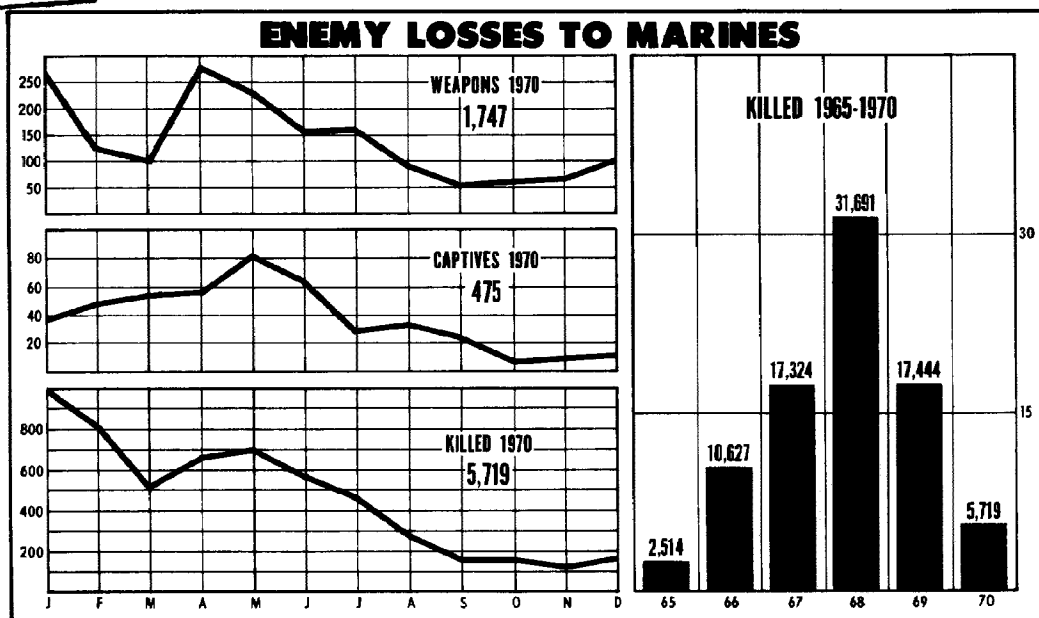
For III MAF, the year can be characterized as one of sweeping reductions, except burgeoning logistic endeavor associated with unit redeployments, redistribution or retrograde of materiel, and transfer of real estate and facilities. The decreases were evident in many areas, all of which add up to an impressively lower level of combat in December than a year ago. Although there are many indexes reflecting the drop in combat activity during the year—decreases in small unit contacts, enemy-initiated action, supporting arms employment, and Marine casualties, to name several—the trend is accurately portrayed by enemy losses to Marines. As can be seen in the following graphs, there was a fairly steady decline in NVA/VC killed and captured during the year as well as in weapons taken. December losses rose slightly as USMC forces, including 2d Combined Action Group platoons and Combined Unit Pacification Program teams killed 172 enemy, captured 13, and seized 105 weapons. A broader overview shows the trend since 1965. For the most part, this increasing quiescence mirrors steady progress toward meeting established in-country goals—enhancing RVNAF effectiveness; developing a secure environment; inflicting heavy losses on the enemy; denying base areas to NVA/VC; interdicting out-of-country supply routes; and restoring, opening, and securing lines of communication.

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The strides made toward achieving Pacific Command goals have made possible considerable reduction of III MAF strength, a process which has deeply affected operations this year. The Force, after extensive 1969 reductions, was diminished by approximately 50 percent during 1970; two infantry regiments and a proportionate share of supporting units (including two fighter/attack aircraft groups, a wing support group, and one reconnaissance and two helicopter squadrons) were moved to locales in Hawaii, CONUS, and WestPac. Nevertheless, Marines retained a complete combat team in RVN. The remaining 1st Wing, 1st Division, and Force Logistic Command elements are an air/ground force with the requisite balance of ground combat and support units; a good ratio of helicopters to supported units; and a mix of fighter, reconnaissance, and attack aircraft.

The tempo of Marine helicopter and fixed wing aircraft operations fluctuated from month to month in 1970, but by December both were off considerably from the previous year. Although rotary wing sortie rates varied primarily due to weather, tactical requirements, and redeployments, other factors

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influenced fixed wing operations. Chief among those was a paucity of targets in-country towards the latter months of the year. This factor was largely responsible for 1st Wing resumption of preplanned interdiction missions in Laos—a task that had been discontinued from August until November. Other out-of-country roles terminated during the year were visual reconnaissance/airborne controller missions using TA-4Fs and photographic reconnaissance and electronic countermeasure flights performed by RF-4Bs and EA-6As respectively. The latter two ended in July when the only Marine reconnaissance squadron in RVN stood down and redeployed. Although the size of the Wing constricted considerably this year, sufficient air control assets were retained to ensure responsive support and aircraft safety for III MAF and other service requirements.

By the end of the year, the NVA/VC appeared to be having extreme difficulty in Quang Nam. Losses and pacification successes forced him once again to rely primarily on guerrilla tactics, disestablish many units, and focus on rebuilding the infrastructure which was badly depleted in 1968 and since has been further disrupted by the GVN Phung Hoang Program and combat operations.

In December, III MAF and GVN forces were keeping pressure on the enemy in Quang Nam—much as had been done all year—with Operation HOANG DIEU 101. This operation, like its predecessor HOANG DIEU, virtually saturates the populated regions with small units to root out or intercept the enemy. In addition to these maneuvers, 1st Marine Division and ARVN forces conducted counter guerrilla operations throughout the province during the year, providing requisite security for across-the-board pacification progress achieved. Supplementing small unit operations were a number of large unit maneuvers executed to disrupt enemy base areas; Operation IMPERIAL LAKE continuing through end-year in the Que Son mountains and VU NINH 12, a Vietnamese maneuver well west of the lowlands, were typical. The latter also points up improvement of RVNAF units, now with central direction from Quang Da Special Zone Headquarters which last summer became the command element of a division-equivalent force comprised of most ARVN units in the province.

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Another closely related 1970 improvement was the noticeable progress in the Regional and Popular Forces—in part fostered by Marine Combined Action and Combined Unit Pacification Programs (CUPP). The Combined Action Program reached its apogee early in the year and then decreased rapidly to an effort localized in Quang Nam by end-year. The Combined Action Force Headquarters, established last winter to control four combined action groups, was deactivated in the fall leaving but one combined action group with 34 platoons working with territorial forces. Like combined action, CUPP has been extremely effective in enhancing village security and preparing Vietnamese units to stand alone. Throughout the year, CUPP units provided security for a steadily increasing number of Vietnamese, thus contributing substantially toward GVN rural development programs.

Highlighting pacification developments were the large number of Viet Cong infrastructure neutralized and refugee resettlements. In both of these areas, especially the latter, province and district governments have shown their ability to manage complex operations. III MAF projects in 1970 such as medical assistance; provision of building materials, technical advice, and other civic actions; and extensive road upgrading complemented recently evidenced GVN viability in rural development activities.

While pacification endeavors moved forward during the year and combat activity dwindled, III MAF logisticians were exceptionally busy with supporting normal operations and tending to redeployment-associated tasks with an eye toward economy and efficiency. With stand down and redeployment of many units, a variety of installations and real estate had to be transferred to other US or GVN agencies—a complex process taken over by III MAF. Even more complicated, however, were interrelated actions taken to identify, screen, and redistribute materiel either made excess by redeployments or simply made available to fill RVNAF needs. These processes, plus those incident to embarkation of redeploying units, were effectively executed, thus achieving maximum economy, facilitating RVNAF improvement, and smoothly shifting units out of Vietnam.

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Although the balance of III MAF operations started to tip away from combat activity toward heightened logistic endeavor this year, Marine innovative contributions to successful prosecution of the war were much in evidence. Massive flame drop operations were conceived and successfully executed. Arresting gear, developed as part of the Short Airfield for Tactical Support, was used extensively to save aircraft and lives. Air support radars and transponder beacons—developed by the Marine Corps—were used to guide planes through bad weather and darkness to strike the NVA/VC. EA-6As and A-6As, both highly sophisticated aircraft systems, were employed in a variety of out-of-country roles. On the ground, sensors, Integrated Observation Devices, the Surveillance/Reconnaissance Center, and the combined action concept were all used during the year to aid in defeating the communists. Similarly, Kingfisher/Pacifier/quick reaction force tactics were refined and employed successfully—offshoots of vertical assault concepts pioneered by Marines.

While a number of redeploying units repostured in WestPac as Pacific Command's force in readiness and others shifted to the US to reestablish expeditionary preparedness, the year concluded with indications of progress throughout III MAF's tactical area of responsibility. 1970 pacification and rural development gains, combat success, and the extent to which redeployment was feasible are positive signs that the Vietnamese may soon be able to go it alone.

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COMBAT OPERATIONS

In December, III MAF ground operations yielded somewhat larger enemy losses than registered in each of the three previous months, yet remained typical of the marked decrease in combat since midyear. Pressure applied by continuing and newly-initiated allied operations served not only to impede overall enemy activity but also to disrupt his plans for generating combat highpoints commemorating a number of December Vietnamese holidays. Operations HOANG DIEU 101--successor to HOANG DIEU--and IMPERIAL LAKE were preemptive in nature, retaining combat initiative while keeping the enemy off balance. Meanwhile, reconnaissance patrolling, directed toward coverage of areas otherwise void of friendly forces, recorded 19 NVA/VC killed.

The month's combat results are reflected in the following chart.

III MAF OPERATIONS: DECEMBER 1970

COUNTERGUERRILLA OPERATIONS		RECONNAISSANCE OPERATIONS	
NVA/VC	USMC	NVA/VC	USMC
140 Killed	9 Killed	19 Killed	2 Wounded and
2 Captured	77 Wounded and	9 Weapons	evacuated
86 Weapons	evacuated		

During the early years of the war, combat was a principal facet of USMC Vietnam participation, while efforts progressed slowly toward prime US goals--to

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effect and support a viable pacification program which could foster GVN influence, destroy VC control over the people, and promote growth and a state of self-sufficiency within the RVNAF. Combat statistics peaked during Tet 1968, which marked the turning point in the conflict. Such substantial and irreparable losses were inflicted, that the enemy was forced to reassess his strategy and redirect the war effort. Pacification and rural development became the prime target; the program's gains increasingly denied popular support to the enemy.

1969 was a year of momentum. Free World forces continued to exploit gains against an already beleaguered enemy, delivering crippling blows against hinterland lines of communication, sanctuaries, and support complexes. In so doing, the NVA in-country organization (including command and control networks) was hurt severely, forcing the communists to withdraw many major NVA units back across the western border and to leave most of the fighting to Viet Cong--a change in strategy.

As the war progressed with battlefield successes, pacification moved to the forefront, reaping stronger gains. Enemy access to the population became increasingly difficult, and grass-roots VC infrastructure cadre suffered organizationally. Many hard-core leaders either rallied or were eliminated. Thus, greater popular allegiance to the GVN developed, with the RVNAF also benefiting. ARVN regulars had matured to a capable force-at-arms, with a number of victories providing increased self-confidence and inspiring greater respect from the Vietnamese citizenry.

Accomplishments on the battlefield, advances in pacification, and improvements of the RVNAF set the stage for commencement of planned sequential redeployment of US units from RVN. Third Marine Division's redeployment from Quang Tri province by end-November 1969 pointed up GVN and Free World confidence in the ability of ARVN units, as Quang Tri was then, and remains today, a high NVA threat area.

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1970 extended the established trend of the war. Allied momentum from the two previous years was carried forward, as several large unit operations (including some self-sustained drives by RVNAF units) further weakened enemy combat support apparatus close by western border regions. The enemy's renewed emphasis on guerrilla tactics while withholding major NVA units from RVN combat allowed Free World forces to maintain minimum strength westward and concentrate on consolidation of the populated lowlands--where small unit, saturation operations were especially successful.

From high enemy losses in 1968 and 1969, battle statistics have steadily declined, except for isolated, short-lived combat highpoints. The scale-down in 1970 can be attributed in part to continued redeployment of US forces; however, reduced fighting (and results) was ascribed to enemy combat debility in RVN as well as out-of-country. Throughout the year, the most typical enemy-initiated tactics were attacks by fire and sapper/terrorist harassing incidents. Few coordinated ground assaults of significance were recorded.

In 1970, Marine strength in MR 1 declined from over 54,000 to approximately 25,000. In March, US Army forces outnumbered Marines in the five northern provinces. Logically then, on 9 March, MACV transferred operational responsibility for MR 1 (formerly I CTZ) from III MAF to the Army's XXIV Corps Headquarters, with Marine responsibility constricting to Quang Nam province.

After the initial amphibious landing in March 1965, III MAF burgeoned to field army size. At its peak, III MAF was comprised of two Marine divisions, a Marine aircraft wing, an extensive logistic command, two Marine regimental landing teams, an Army corps headquarters, three Army divisions, and an Army mechanized infantry brigade--the largest Marine-commanded combat force since temporary USMC command of the 10th Army on Okinawa in 1945. Interestingly, III Amphibious Corps and XXIV Corps were participants in that campaign.

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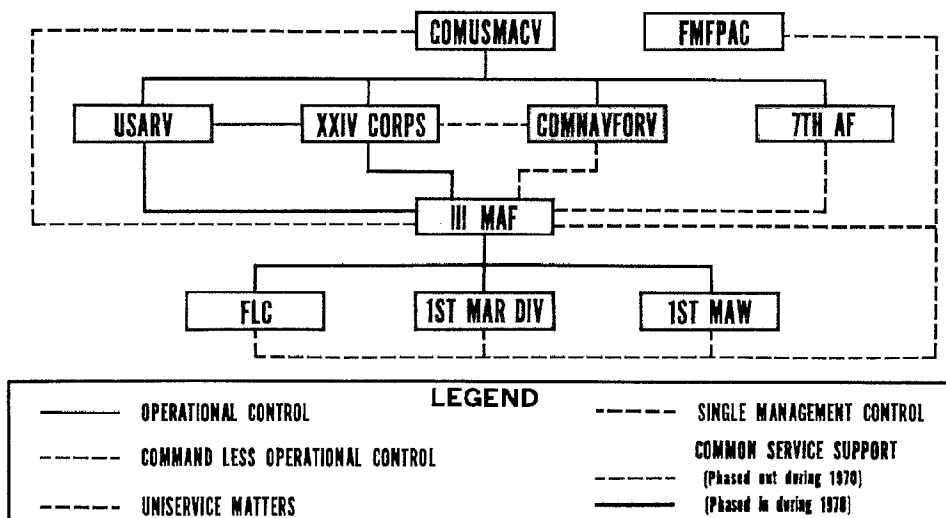
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Marine command relationships remained relatively unchanged after 9 March; III MAF continued as a separate service command under MACV, but subordinate to and under operational control of XXIV Corps instead of MACV. Also, III MAF continued directly under Fleet Marine Force, Pacific (FMFPac) for administrative, training, logistic, communication, doctrinal, and other matters of USMC interest. Commander, Naval Forces Vietnam (COMNAVFORV) continued to provide non-USMC peculiar logistic items (such as food and fuel), with USARV assuming this chore as redeployments continued. Strike and reconnaissance aircraft and control systems were still provided by III MAF under 7th Air Force single management after the shift in responsibility for MR 1. Force Logistic Command, 1st Marine Division, and 1st Marine Aircraft Wing remained the major III MAF operational units. These command relationships are depicted below.

III MAF COMMAND RELATIONSHIPS



As 1970 progressed and more USMC units redeployed, III MAF retained control over the same

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tactical area of responsibility in Quang Nam, except for occasional boundary easements relinquished to adjacent forces. The 26th and 7th Marine Regiments and a proportionate share of support units redeployed. Remaining forces were repositioned for maximum coverage of higher enemy threat areas. The 2d ROKMC Brigade continued operations in the central coastal region of the province, while improved ARVN regular and irregular units expanded operations in eastern Quang Nam, utilizing former USMC combat bases at Hill 55 and An Hoa. RVNAF units also assumed greater responsibility for security of lines of communication, installations, and villages. Allied reconnaissance operations within mountainous approaches to the lowlands monitored enemy activity to assure early detection of any indication of a greater NVA/VC threat.

Control over the battlefield utilizing fewer troops was enhanced by employing sophisticated surveillance systems, including a full family of sensors and highly accurate observation devices to acquire targets. This effort provided real-time intelligence data for low threat areas, reducing need to physically occupy those regions.

Other combat techniques enhancing operations in 1970 were Kingfisher and Pacifier patrols and, more recently, quick reaction forces. All were similar in at least one respect--timely helicopter insertion of varied size units to exploit targets of opportunity--and differed primarily in the method of target acquisition and friendly forces employed.

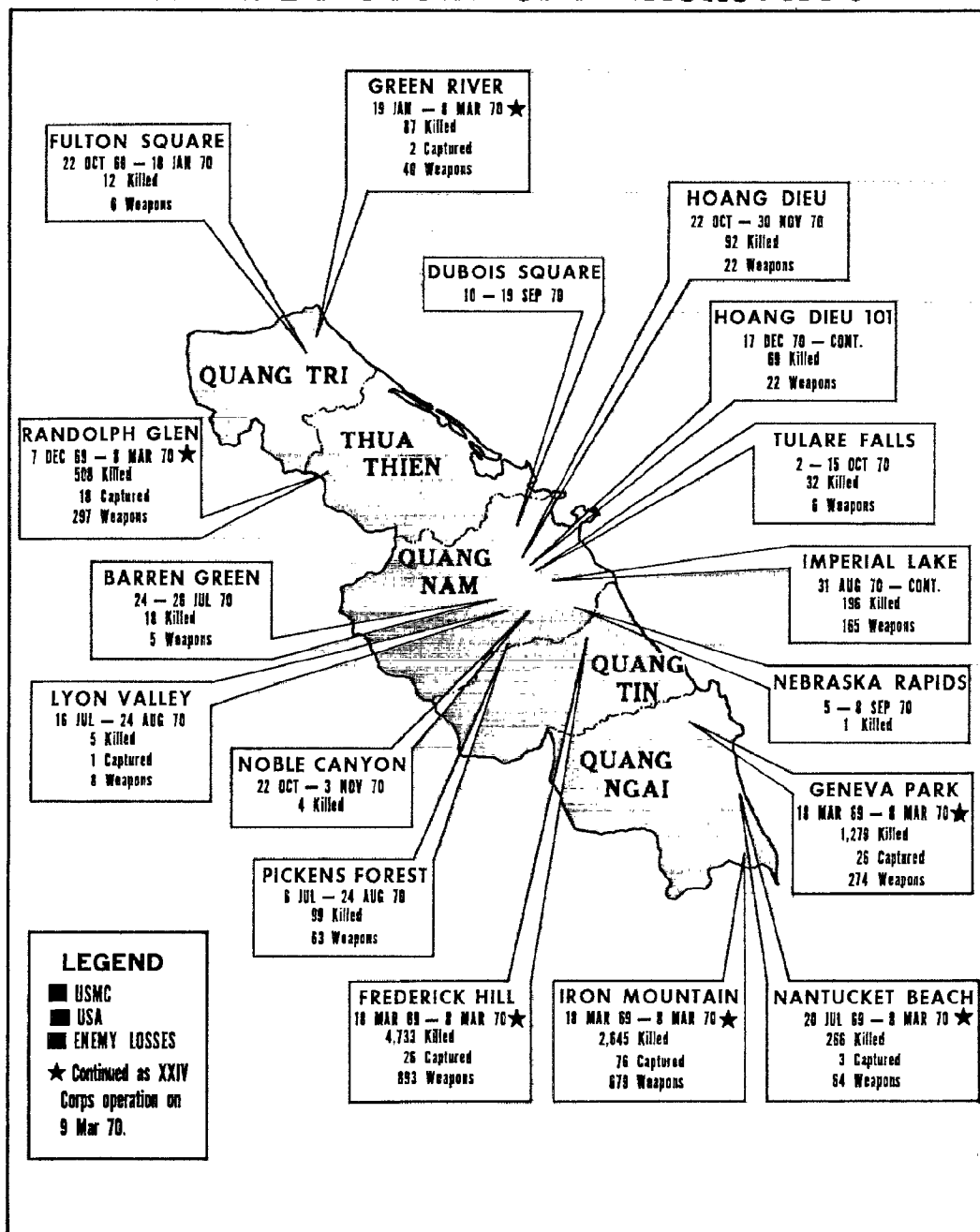
Marine small unit activity in the counter-guerrilla campaign during 1970 was supplemented with a number of large unit maneuvers. The following map depicts general locations of the 17 large unit operations controlled by III MAF during the year (including those of US Army units and their results prior to 9 March).

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III MAF LARGE UNIT OPERATIONS: 1970



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Counter guerrilla Operations

December was the first month since August during which enemy losses increased. Again, the bulk of enemy losses was registered in the Que Son mountains, where 2d Battalion, 5th Marines killed 73 NVA/VC. Scattered combat throughout the rest of the III MAF area brought the December total to 140 enemy killed, with but ten credited to 1st Marines. Some 5,200 patrols, ambushes, and company operations were executed--the lowest monthly number for the year and less than half the January figure.

Operation IMPERIAL LAKE was continued through December by elements of 2d Battalion, 5th Marines. Cumulative results for the operation reached 196 NVA/VC killed, 110 suspects detained, and 154 individual and 11 crew served weapons captured by end-month.

Highlighting IMPERIAL LAKE action was discovery of two caches and two base camps. On the 13th, a Company E squad patrol located a stash, three miles north of Fire Support Base (FSB) Ryder, of 11 rifles, one crew served weapon, over 200 grenades, and a quantity of mixed small arms ammunition. The following day while searching just a short distance eastward, a Company F platoon discovered an abandoned base camp. Within this complex were three 25-pound shaped charges, 45 pounds of TNT, more than 100 grenades, seven Bangalore torpedoes, 3,200 feet of detonator cord, some 4,500 pull-type fuzes (300 already connected to blasting caps), a number of mortar and RPG rounds, one machine gun, and 20 booby traps ready for emplacement. Using the captured explosives, the ordnance was destroyed in place.

On the 16th, another Company F patrol located a base camp three miles to the northwest of the earlier finds. As the platoon approached the position, defenders opened fire with RPGs and small arms. Returning fire and maneuvering to an assault position,

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the unit relayed target information to a supporting OV-10A which attacked the target and then directed fixed wing aircraft strikes. Lifting the supporting fires, the patrol assaulted through the camp, sustaining but one minor casualty; four VC were killed and two weapons taken in the skirmish.

Operation HOANG DIEU 101 was begun by the RVNAF late in November in the northern Barrier Island region and was expanded during the second week of December to encompass all of Quang Nam. III MAF entered the operation on the 17th, with all USMC ground units participating except those committed to IMPERIAL LAKE. Primarily, the concept was to follow up successes of HOANG DIEU, during which 1,180 enemy were killed or captured, 131 persons rallied, more than 500 VC suspects detained, and some 200 weapons taken. Coordinated, saturation-type operations employing all combat forces in the province are effective means of not only deterring enemy advancement against the lowlands but also eliminating VC main and local force units and their established supporting infrastructure. As in HOANG DIEU, III MAF units continued to maneuver in their respective areas, concentrating on the fringes of populated regions.

By end-month, III MAF units had tallied 69 enemy killed, 93 detainees, and 22 weapons in HOANG DIEU 101. One of the more noteworthy USMC actions occurred late on the 24th, when a Company L, 5th Marines patrol attacked a group of enemy assembled in front of a cave. The brief fight ended with five enemy killed and two detainees, five weapons, three field radios, and 300 pounds of rice seized.

Other action during December included a quick reaction force contact on the 16th. Exploiting a sighting of a suspected VC group six miles northeast of An Hoa, a Company I, 1st Marines platoon was heli-lifted to the area. In the ensuing sweep, 12 VC suspects were captured for later interrogation.

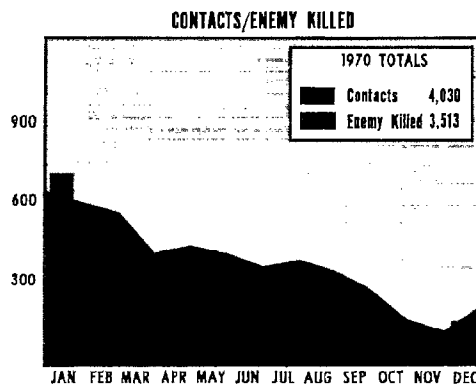
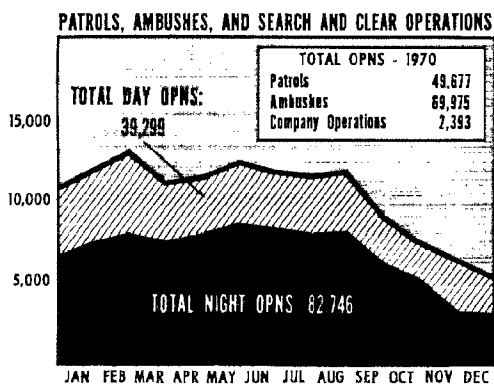
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The following graphs depict the December levels of Marine activity and enemy losses and compare them with data for the remainder of 1970.

MARINE SMALL UNIT OPERATIONS: 1970



-1970 Overview

With respect to tactical operations over the past two years by 1st Marine Division units, a number of indicators confirm two conclusions: (1) the level of combat in 1970 declined progressively, showing a sharply decreased tempo from last year, and (2) combat effectiveness of the Division increased.

One of the better indicators supporting these conclusions was casualty rates. Marine losses during the year ran 60 percent less than those in 1969. Enemy losses, while also reduced, did not decline to the extent USMC losses did--5,225 NVA/VC were killed and 1,302 weapons were captured by the Division this year, compared with 9,643 and 2,502 last year. The 1970 results are 46 and 48 percent less than those of the previous year.

Pronounced declines in levels of activity were also recorded. Counter guerrilla operations dropped

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from more than 11,000 small unit activities in January to just over 5,000 in December, reflecting the effect of redeploying two regiments. At the same time, numbers of enemy actually sighted in Quang Nam also declined, especially during latter months of the year, excepting December when a moderate increase was registered. A 1970 high of some 4,400 NVA/VC were sighted in January, while a low of 576 was recorded in November; December sightings jumped to 1,331.

The volume of ordnance delivered by supporting arms decreased at a relatively steady rate during calendar year 1970, from a total of over 179,000 artillery rounds and over 5,500 rounds of naval gunfire (NGF) during January to 26,999 and 217 rounds, respectively, in December. The decrease in ammunition expended by artillery is partially charged to decrease of the average number of weapons available, down from 156 during January to 74 after the 15 October redeployments. The remaining pieces, however, were continually repositioned to cover essentially the same area. Reduction of artillery ammunition fired was related more to decreased enemy activity, a more selective targeting policy adopted by the Division in October, and increased employment of quick reaction forces. Also, the high density of Free World units in the saturation operations characterizing the latter months of 1970 limited use of supporting arms.

The decrease in naval gunfire was directly related to a sharp cutback in the number of ships available; the number of ship-days on station per month dropped from 37 in January to four in December. Also a factor, the number of suitable NGF targets diminished in the Quang Nam coastal region.

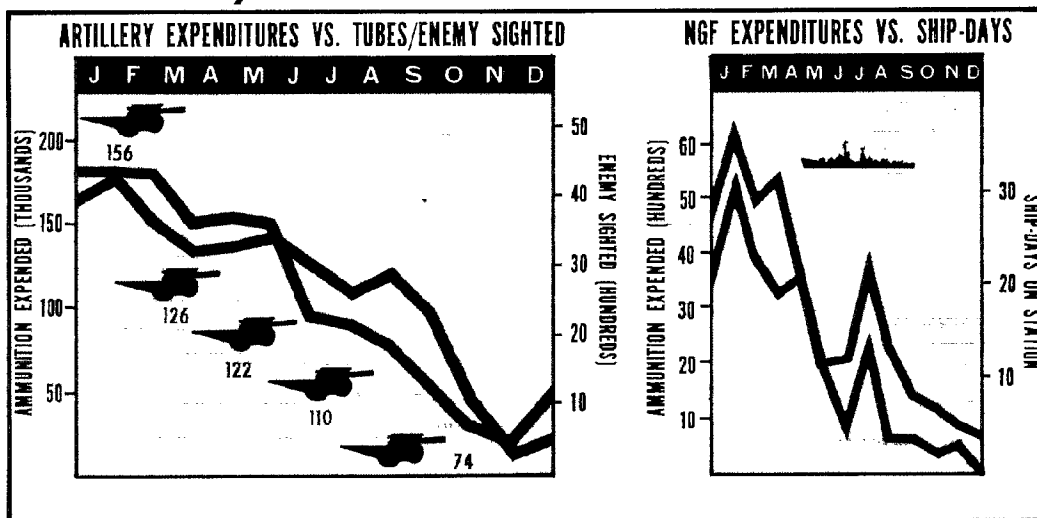
The following graphs relate decreases in artillery and naval gunfire expenditures to reductions in the number of artillery pieces, ship-days on station, and enemy sighted.

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ARTILLERY / NAVAL GUNFIRE EXPENDITURES : 1970

III MAF combat emphasis during 1970 was against enemy in the Que Son mountains, where some USMC inroads had been made last year. Seventh Marines, and later 5th Marines, dealt substantial blows to NVA/VC forces in the rugged, jungle-shrouded mountains, pockmarked with caves and other natural hiding places. Besides almost continuous company patrol operations in the hills, known areas of heavy use were monitored by a combination of reconnaissance teams, Integrated Observation Devices (IOD), aerial observation, and sensor fields. The entire effort resulted in decreased enemy presence not only in the mountains but also in the adjoining lowlands, where the reduced threat from the Que Sons facilitated small unit saturation operations.

Before assuming operational responsibility for the Que Son mountains and northern Nui Loc Son basin in October, the 5th Marines had been deployed to control traditional avenues of approach to An Hoa basin, once the primary enemy staging area for attacks throughout the lowlands. The Regiment maintained

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mobile blocking forces to thwart enemy encroachment from the west through the Arizona area and Thuong Duc corridor. In addition, route security--including protection of Liberty Bridge--was a 5th Marines mission. Since the Regiment moved to the Que Sons, action has been light and sporadic, attesting to 7th Marines successes therein.

From January to April, 1st Marines conducted operations in the general area from Danang west to Charlie Ridge and south to the Vu Gia/Thu Bon rivers between Hill 65 and Hoi An. In April following redeployment of the 26th Marines, 1st Marines was assigned an additional area northwest of Danang to the Thua Thien border and Hai Van pass. Later in the year, the Regiment also maneuvered units in the former 5th Marines area. Combat action in the entire region has been extremely light; however, enemy use of mines and booby traps continued to reflect his presence.

Of the more than 5,200 enemy killed by 1st Division, 3,345 were credited directly to maneuver battalions. The bulk of these (1,470) were by 7th Marines, with the 5th tallying over 1,300 others. The 1st and 26th Marines inflicted losses on the enemy of 417 and 132 killed, respectively. Other Division assets, excluding reconnaissance units, accounted for the remaining 371 NVA and VC killed.

Principal maneuver exercised during 1970 was small unit saturation operations--most suitable for the large area covered, denseness of the population, and enemy proclivity for harassing allied forces and the civilian populace with small, lightly armed elements. Even so, III MAF Marines executed ten large unit operations, most by reinforced battalions.

The most productive named operation, IMPERIAL LAKE, started on 31 August and continued through the end of the year. Thus far, this operation has accounted for nearly 200 NVA/VC killed in the Que Son mountains. Operation PICKENS FOREST (6 July-24 August), launched as part of the country-wide summer

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campaign, was the deepest westward penetration by USMC units during the year. This operation was significant in that it confirmed enemy abandonment of Base Area 112 in south-central Quang Nam. Operations HOANG DIEU (22 October-30 November) and HOANG DIEU 101 (17 December-continuing) were multiregimental in size and were predominantly RVNAF saturation operations supported by III MAF along the periphery of the populated lowlands. In all, Marine-conducted large unit operations netted over 500 NVA/VC killed and nearly 300 weapons captured.

Special tactics employed during the year included Kingfisher, Pacifier, and quick reaction force patrols. Lacking large scale confrontations early in the year, III MAF controlled and launched helicopter-borne Kingfisher patrols daily to seek out and engage targets of opportunity, exploit contacts in progress, or investigate suspicious activity acquired by sensors or other intelligence collection means. Pacifiers were manned by units of the Division reserve, 1st Battalion, 5th Marines (as were Kingfishers), and differed only in that they usually were not airborne until suitable targets were identified. Quick reaction forces, on the other hand, were employed by both the remaining regiments, and each had a dedicated helicopter package for fast exploitation of enemy sightings. Recently, these patrols have been especially beneficial in the Que Son mountains in conjunction with reconnaissance team operations.

Six Integrated Observation Devices were introduced to the Quang Nam battlefield during October 1969. The instrument's range-finding accuracy, obtained from a laser component, and long distance observation capability enhanced the effectiveness of supporting arms. Although unknown whether the enemy discovered how such accurate artillery fire was directed against formations in heretofore safe areas, he has altered troop traffic patterns by moving smaller units, avoiding exposed sections of lines of communication, further restricting daytime movement,

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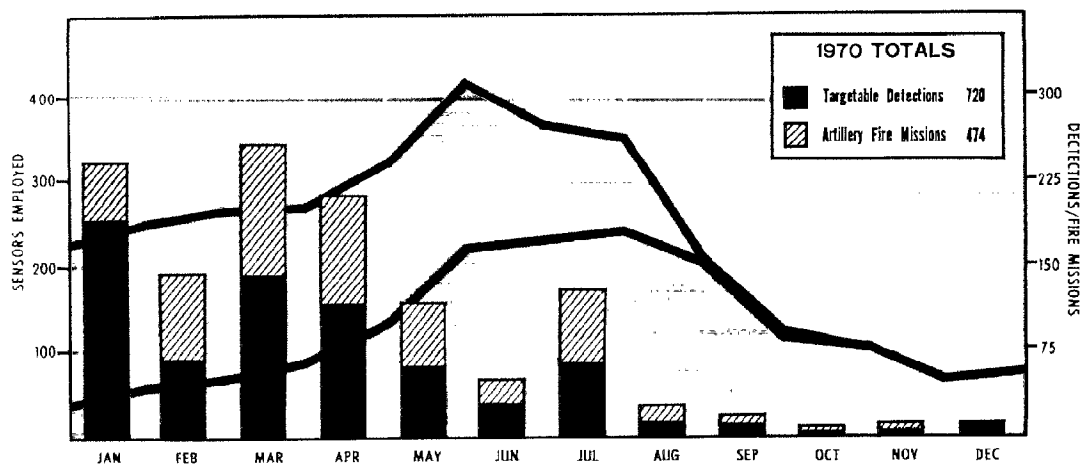
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and frequently alternating routes. Throughout 1970, IOD-associated kills diminished substantially; during the first three months of IOD employment, at least 1,153 enemy were killed compared to 62 during the period October to December 1970. Helicopter transportable, the IODs frequently were shifted between a number of observation posts, improving observation of the III MAF area.

Sensor utilization, built up over the last three years, decreased significantly during 1970, commencing in July with deactivation of an anti-infiltration system near Danang and followed by deactivations of sensor strings and monitoring sites in southern and central Quang Nam. At end-year, there were four of the latter remaining in the III MAF area.

During 1970, the number of sensor activations that resulted in requests for fire missions varied greatly from month to month. Only during the past four months was there a fairly consistent pattern of activations, distinguishable in the following graph. December activations represented more than a twenty-fold decrease from those in January.

SENSOR ACTIVITY: 1970



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The decline in targets detected by sensors employed by III MAF is attributed to four factors:

-Restriction of sensor channels (frequencies) from ten to four.

-Reduction of Sensor Control and Management Platoon (SCAMP) strength from 85 to 28, due to re-deployments.

-Inclement weather, since sensor effectiveness is reduced appreciably during periods of heavy rain and wind.

-Enemy avoidance of regions where sensor activations previously brought artillery fire on him.

However, sensors remain an effective tool for locating the enemy, and in early 1971, III MAF is slated to use an improved generation of sensors (Phase III), which will have advantages of increased employment flexibility and easier maintenance.

Kit Carson Scout Program

Early in 1966, a former VC was used near Hill 55 to counter VC propaganda that he had been killed after rallying under the Chieu Hoi Program. The incident pointed out that ralliers could usefully be employed in conjunction with US forces. Thus on a trial basis, six former enemy were assigned to the 9th Marines as combat scouts during November 1966; five months later, as a result of their success with USMC patrols, MACV extended employment of Chieu Hoi returnees to all US units in RVN. The Kit Carson Scout (KCS) Program was formalized on 23 September 1968.

From initial USMC development, seven principal missions for KCS have been assigned. These former enemy assist in the following: (1) tactical operations as guides or scouts; (2) locating and identifying enemy units, assembly areas, and routes of movement; (3) search operations for NVA/VC equipment and supplies; (4) population control and concurrent psychological operations; (5) interrogation of captives,

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suspects, or other returnees; (6) identifying enemy for tactical intelligence units and GVN agencies through visual recognition; and (7) identification of dead or wounded NVA/VC.

ACTIVITIES		DISCOVERIES	RESULTS
9,791	PATROLS	329 CAVES/ TUNNELS	43 KILLED
282	CLASSES BY KCS	263 MINES/ BOOBY TRAPS	313 CAPTURED/ DETAINED/ RALLIED
78	PSYOPS	104 CACHES	96 WEAPONS

During early 1970, III MAF administered the KCS Program in MR 1, where some 650 Scouts were employed by USMC and US Army units. Following 9 March, III MAF exercised control over only those Scouts with Marines, and as USMC

units redeployed, Scouts were reassigned within III MAF. A 1970 high of 111 KCS on the III MAF roles in July declined to a low of 95 in December. Accomplishments credited to Scouts assigned to Marine units during 1970 are depicted in the accompanying chart.

Reconnaissance Operations

During December, 1st Reconnaissance Battalion teams conducted 576 day and night patrols, primarily monitoring lines of communication linking mountainous enemy retreats with the lowlands. These patrols killed 19 NVA/VC in 12 contacts--the latter setting a new low for the war. However, the main missions of reconnaissance patrols remained surveillance and intelligence collection rather than combat, and in these aspects, their efforts were rewarding. In all, the activities of some 50 separate groups of enemy were sighted by teams in the field, most of which were concentrated in the Que Son mountains.

However, the most significant contact took place in the Charlie Ridge region just before noon on the 23d. While teams PRIME CUT and SWIFT SCOUT were on a combined patrol, they observed approximately 20 enemy in and around a cave located five

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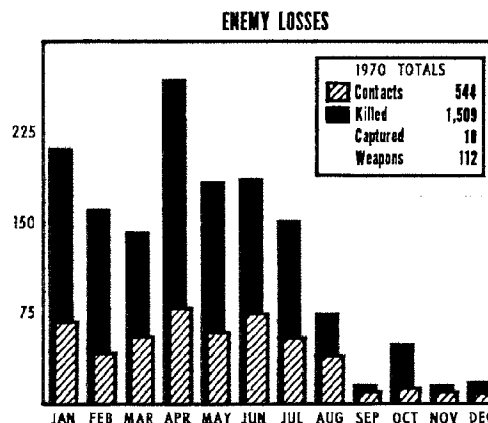
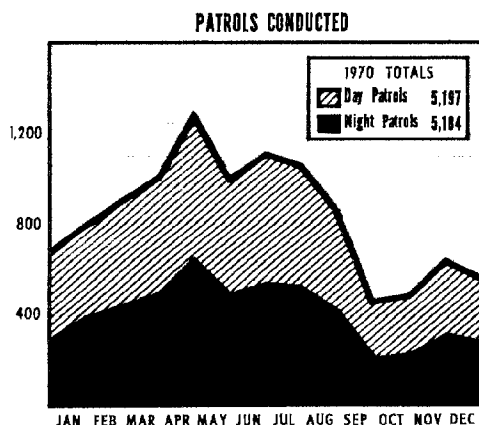
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miles northeast of Thuong Duc. Outnumbered, the Marines fought a delaying action until a supporting OV-10A arrived overhead, covering their disengagement with aerial rocket fire. Enroute to a suitable extraction site nearby, two more contacts were made, during which two VC were killed and a patrol member wounded; a short time later, both teams were successfully extracted. As soon as the patrol left the area, air and artillery strikes were brought to bear on the base camp. In all, seven VC were killed during the skirmish.

The following graphs portray, by month, III MAF reconnaissance operations and results for 1970.

RECONNAISSANCE OPERATIONS: 1970



III MAF operational assets prior to September 1970 included 1st Reconnaissance Battalion, 1st Force Reconnaissance Company, and until 2 March, 3d Force Reconnaissance Company. During this period, teams manned four IODs from permanent observation posts. A major reorganization was effected in September as a result of reconnaissance company withdrawals. Security for three IOD positions was transferred to infantry units, and 1st Reconnaissance Battalion set its sights on maintaining 24 operational teams, at least half of them in the field. Recently, an average of 15 teams have been deployed. Since weather restrictions lately have impeded helicopter insertion/extraction of teams, platoon/company patrol bases have been used to facilitate movement and resupply of deployed patrols.

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-Surveillance/Reconnaissance Center

With departure of 3d Marine Division from Quang Tri and relocation of the 101st Airborne Division within Thua Thien late last year, most US forces were situated near population centers throughout MR 1. Therefore, requirements for deep surveillance and reconnaissance of traditional enemy lines of communication in western MR 1 became essential to determine the extent of reported increased enemy activity in frontier areas. At the same time, III MAF recognized a need to further integrate signal, sensor, and ground/aerial surveillance with reconnaissance information from all other collection assets in MR 1 to achieve savings in allocation, facilitate control of assets, and enhance correlation of reports from all sources.

Thus in November 1969, III MAF established the Surveillance/Reconnaissance Center (SRC) after earlier assuming direct operational control of both 1st and 3d Force Reconnaissance Companies. The SRC was chartered as an all-source intelligence agency with the following specific functions: (1) to control and employ the two force reconnaissance companies; (2) to recommend sites for sensors throughout MR 1; and (3) to provide a unique briefing/display facility at III MAF, where all ground/aerial reconnaissance and surveillance, signals intelligence, and sensor-derived information could be collated and analyzed. In a nutshell, the SRC provided centralized management for integrated intelligence collection and analysis, thus achieving more timely tactical reaction to exploitable situations.

The SRC functioned from November 1969 to the following March. One endeavor highlighting SRC operations was a 3d Force Reconnaissance Company operation in A Shau Valley between 15 December and 15 February. Utilizing intelligence input from a variety of collection means, the SRC determined areas most likely to yield further productive information about the NVA. Reconnaissance teams were dispatched to these locales. Other patrols were deployed to determine the extent of areas of heaviest enemy concentration and to search for indications of enemy elsewhere in the Valley. During the eight-week operation, 55 six-man patrols, deep in enemy-held terrain, gathered vital information--including identification of 803d NVA Regiment elements previously thought to be in Laos; a trail/road

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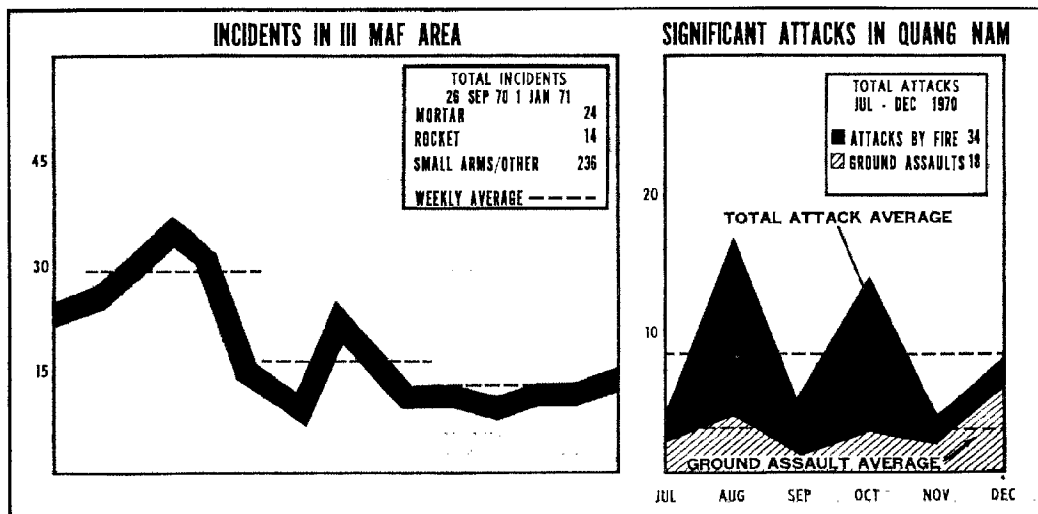
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network, with one road eight feet wide and camouflaged under treetops tied overhead; elements of two truck companies; and a number of large base camps--signaling a pre-Tet buildup.

Enemy Activity

During December, the frequency of significant enemy attacks against Free World military installations and population centers in Quang Nam was twice that of November. However, incidents in the III MAF area declined to the lowest level of the year. In total, there were eight ground or indirect fire attacks of varying significance tallied for all of Quang Nam and some 50 enemy-initiated incidents in the III MAF operations area. The following graphs reflect December statistics and compare them with past enemy efforts.

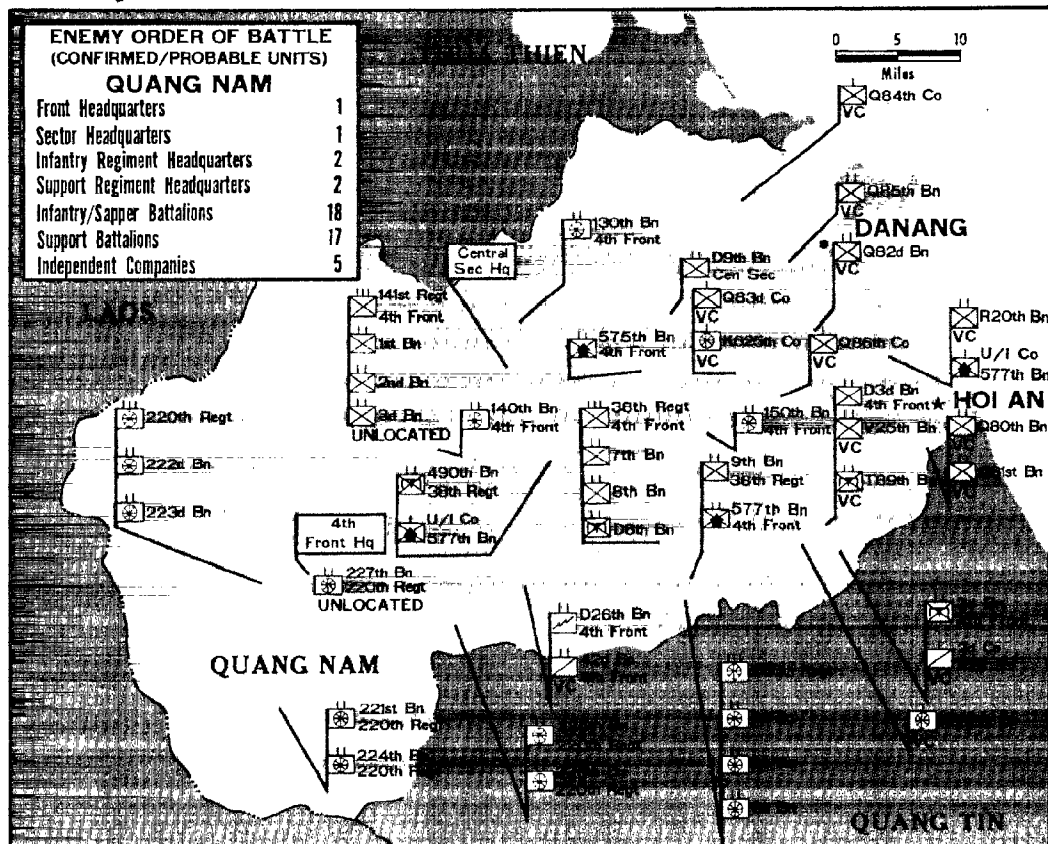
ENEMY-INITIATED ACTION



Estimated strengths for confirmed/probable NVA and VC units and guerrillas remained essentially at November levels. Deletion of C31st Company and 160th Transportation Battalion were the only changes to the order of battle, both due to lack of recent contact or confirmed sighting. The map on the following page plots end-December enemy order of battle for Quang Nam. The accompanying chart compares province enemy statistics with the rest of MR I and the DMZ.

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QUANG NAM ENEMY ORDER OF BATTLE: DECEMBER 1970



★ Province capital

PROVINCE	TROOPS IN CONFIRMED COMBAT/SUPPORT UNITS		GUERRILLAS	COMBAT BATTALIONS				SUPPORT BATTALIONS	
				INFANTRY		SAPPER		ROCKET/ ARTILLERY	OTHERS
	NVA	VC		NVA	VC	NVA	VC		
DMZ	7,000	0	0	3	0	2	0	6	7
QUANG TRI	10,800	550	700	12	0	2	0	1	1
THUA THIEN	9,600	350	650	12	1	4	0	5	0
QUANG NAM	7,300	1,700	3,750	8	6	3	1	2	15
QUANG TIN	1,400	3,050	1,450	0	6	1	2	0	13
QUANG NGAI	1,600	2,200	2,550	6	3	1	1	1	9
TOTALS	37,700	7,850	9,100	41	16	13	4	15	45

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-1970 Overview

Enemy activity declined at a steady rate during the year. The reduction was due largely to losses sustained by Front 4 units and apparent enemy reversion to guerrilla warfare techniques. Total strength of NVA and VC in confirmed units and guerrillas in the province, once estimated as high as 16,800 (May 1969), diminished to approximately 8,500 by late December 1970. Infiltration of replacements from North Vietnam was minimal. The enemy's inability to recruit from the indigenous South Vietnamese manpower base resulted in using many NVA personnel for traditional VC roles and, in some cases, to augment VC main and local force units.

A further illustration of declining effectiveness, the enemy was required to realign his organizational structure in Quang Nam. Throughout 1969 and during early 1970, Front 4 commanded four NVA regiments, but by end-year, it appeared that only the 38th Regiment had any degree of combat effectiveness. Disbanding units (31st and 36th Regiments), reduction of unit strengths, and realignment of operational control resulted in extensive reorganization of units as well as command and control relationships. [Support from VC infrastructure deteriorated, as cadre leadership and manpower were severely depleted through continuous pressure by Free World pacification support operations.]

In reviving guerrilla warfare strategy, the enemy continued to rely on indirect fire attacks as a primary tactic, employing mortars, rockets, and a relatively new innovation--lob bombs (a crudely fuzed artillery round or aerial bomb lofted up to 650 yards in the general direction of a target by an explosive charge). Nevertheless, total attacks by fire in Quang Nam also declined during the year--the cumulative effort during the past six months was less than that of January alone.

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Enemy employment of rockets in the province during 1970 varied; in April, the year's high was 58, while during March and July, none were fired. Such attacks were directed primarily against Danang and its environs; they frequently were planned for periods of low lunar illumination, underscoring the fact that the enemy's ability to launch rockets was largely governed by his ability to avoid detection. Preemptive small unit operations in high threat areas around Danang contributed significantly to suppressing multiple firings. Elsewhere during the year, rockets were employed against Thuong Duc and nearby ARVN positions. By virtue of fewer allied forces in these areas, the enemy had a higher degree

of selectivity in choosing firing sites; however, the inherent inaccuracy of this weapon rendered it relatively ineffective when fired in small quantities.

ENEMY FIRE: QUANG NAM 1970

ROUNDS:	MORTARS	ROCKETS	LOB BOMBS
JAN	621	23	14
FEB	283	9	0
MAR	172	0	11
APR	260	58	0
MAY	267	36	11
JUN	285	20	27
JUL	58	0	24
AUG	119	25	10
SEP	125	25	5
OCT	145	18	1
NOV	25	7	2
DEC	41	8	0
TOTAL	2,401	229	105

Mortar rounds constituted by far the largest expenditure of enemy ordnance employed. However, these shellings were primarily harassing in nature and rarely were followed by infantry or sapper exploitation. Mortaring declined during the year from a high of 621 rounds in January to a mere 25 and 41 rounds fired in November and

December, respectively. This was in consonance with other evidence of declining enemy activity. Again, friendly small unit operations forced mortar teams to resort to hit-and-run firing with a resultant loss of effectiveness.

Frequency of lob bombing this year has varied considerably--June was high with 27. These weapons, crude and ineffective with a high dud rate, provided the enemy little more than another means of harassment.

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-1971 Outlook

Unless the enemy introduces sizable reinforcements into Quang Nam in 1971, it is anticipated that his present force levels will continue to deteriorate. Confronted by reduced manpower, food shortages, and Free World forces preemptive operations, the enemy should remain limited to conducting the harassing activities that characterized his efforts in recent months. In the populated lowlands, there are strong indications that attention will be focused toward rebuilding the depleted VC military and political structure at the hamlet and village levels. Without this infrastructure--exposed and hurt during the 1968 Tet offensive and degraded continuously since by allied operations--the enemy's opportunities for lasting success are seriously eroded. In the highlands, NVA forces will most likely remain preoccupied with provisioning, restructuring, and training necessary for restoration of combat capability.

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RURAL DEVELOPMENT AND PACIFICATION

The preceding 12 months have witnessed progressive decline of III MAF presence in Quang Nam accompanied with a step-by-step increase in the share of the load shouldered by the GVN and RVNAF.

As Marine units redeployed and regimental tactical areas of responsibility were altered and stretched to sustain requisite territorial security, an ARVN division-equivalent force was established, providing a strong maneuver element available for employment throughout the province. Territorial force units increased in number and capability, drawing on skills developed through the Combined Action Program and Combined Unit Pacification Program. The majority, however, performed well on their own; of the 252 territorial units in Quang Nam at the end of the year, only 55 enjoyed collocation with USMC elements. Nonetheless, these Regional and Popular Force units effectively demonstrated their abilities in cooperation with ARVN and Free World forces during two province-wide saturation operations at end-year.

Simultaneously, GVN provincial, district, and village governments progressed during the year, making inroads on recognized social and economic problems. One of the year's highlights was the gains made in identifying and eradicating the hidden enemy in their midst.

While significant problems continue, the manifest success of government and military agencies in finding solutions to others shows promise for the future.

Pacification

The 1970 GVN Pacification and Development Plan, a logical progression of the 1969 program, officially commenced on 1 January, following several months of detailed planning, coordination, and review at all governmental levels. Eight objectives--all

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extensions of last year's aims--were assigned, focusing effort on territorial security, suppression of terrorism, improvement of the People's Self Defense Force, local government development and elections, the Chieu Hoi Program, reduction of refugee population, psychological operations, and social and economic development. In order to more closely monitor and control progress, the program was to be conducted in three increments: Phase I from 1 January to 30 June; Phase II from 1 July to 31 October; and the remaining two months to serve as transition between the 1970 and 1971 plans.

On the other side of the coin, communist leadership fixed attention on the pacification program and the threat it holds to their long term interests. During early 1969, the enemy viewed pacification with little concern, as they concentrated effort on the battlefield for military success. In mid-1969, the NVA/VC began to realize the significance of the program and directed steps to counter it. These were slow to develop in practice, however, as it was not until the spring of 1970 that any substantial degree of impact on pacification was felt. By then, the policies outlined in COSVN (Central Office for South Vietnam--the communist headquarters for directing the war in RVN) Resolutions 9 and 14--calling for a change in tactics to small unit attacks on territorial force outposts and increased terrorism--were being applied, although with varying intensity in different areas of the country.

The 1970 Pacification and Development Plan did not actually get under way until considerably later than the first of the year. January and February have always been months for pacification planning and celebrating the Tet holidays, and 1970 was no exception. March has generally been the back-to-work month, and while this held true for most of the country, national leadership and emphasis were distracted somewhat by war veteran and student demonstrations. Then, in the spring months, all eyes turned to ARVN operations in

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Cambodia. Whether by coincidence or by design, the enemy began to carry out COSVN Resolutions 9 and 14 in April and May, resulting in a two-year, country-wide high in terrorism for both months. In general, Phase I experienced an understandable loss of momentum after the widespread success of the accelerated pacification program launched in November 1968 and in the face of the necessary drudgery of consolidating gains and solving fundamental economic and social ills.

GVN leadership, aware of the slump, decreed that a special pacification and development campaign would run from 1 July to 31 October concurrent with Phase II, to rekindle the drive required for continued progress. The main thrust of the campaign was to solidify the improvements of the previous 18 months. At the end of Phase II, GVN security gains were significant, particularly in territorial security programs.

Following on the heels of Phase II, the 1970 Supplementary Pacification and Development Plan was launched on 1 November to complete unfinished tasks and to provide transition and preparation for the 1971 plan. Major goals cited were maximum elimination of VC infrastructure and increased territorial security. Guidance was promulgated for a complete review of relationships and responsibilities among governmental agencies, and specific tasks were set forth for these as well as military and paramilitary forces. Also called for was increased efficiency of the information program.

Localizing these events to Quang Nam province, solid gains have been made in all eight objective areas during 1970. In some cases, achievements have fallen short of numeric goals, but throughout, progress--despite extent--has been the fruit of GVN effort at village, district, and province levels, enhancing the trust held in these institutions by the citizenry. Two noteworthy programs in Quang Nam have been Viet Cong infrastructure neutralization and refugee resettlement.

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-Resettlement of Refugees

Quang Nam's long-standing problem has been resettlement of some 76,000 refugees temporarily housed in 74 encampments throughout the province. The magnitude of this task obviated piecemeal solution, and province officials laid plans for extensive resettlement projects returning refugees to areas of agricultural promise and, at the same time, denying NVA/VC access to these areas. The first two sites--Go Noi Island and Route 4 west of Route 1--have been the scenes of considerable hard fighting on various occasions in the past five years.

Prior to 1965, Go Noi was wealthy and populous, supporting some 27,000 Vietnamese who made their livelihoods through cultivation of rice, cotton, and mulberry trees (for silkworms). The area's prosperity and location astride the major lines of communication in Quang Nam attracted the Viet Cong, who began to use it as a staging area in 1965. This, coupled with heavy floods the previous year, brought about gradual migration of citizenry off Go Noi. US/ARVN operations in 1965 moved the remaining inhabitants out of the area.

After a series of successive operations in 1968 and 1969, the way was clear for resettlement in 1970, whereupon province officials prepared a workable plan to return the people to their former locales. Phase I called for resettlement in three villages, followed by a second phase establishing three more.

On 19 June, 109 families crossed over the temporary bridge (since replaced with a permanent structure) on eastern Go Noi and began the work of rebuilding homes. At end-year, two villages (Phu Loc and Phu Phong) were busy with the activity of some 2,000 inhabitants. The third village is still in the planning stage, as is Phase II; project completion calls for resettlement of some 17,000 persons.

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So far, the Go Noi project appears highly successful; the villagers are well ensconced and earning a living, and the real incentive of land ownership has spurred agricultural production. A farmer's cooperative effort to build an irrigation system is planned--a project delayed by end-October flooding. Both communities, however, have almost fully recovered from the inundation; all that remains is repairing the road connecting the two villages.

The second major resettlement project was established on Route 4 between Route 1 and the railroad tracks west of Dien Ban. Initially scheduled for commencement in October, the month's rains and resultant floods set back the timetable for completion. However, at the end of December, some 90 houses were nearing completion, and 46 people were actually residing in the new village, Ky Ngoc.

While both these projects received considerable material, transportation, and earthmoving support from Free World forces, they have been largely planned and executed by provincial government agencies, demonstrating improved ability to manage social projects of considerable complexity.

-Viet Cong Infrastructure Neutralization

Viet Cong infrastructure (VCI) neutralization, termed by the GVN as Phung Hoang, is a program directed toward the 1970 plan objective to reduce terrorism and involves identification, capture, and judicial processing of suspected enemy cadre at large within the Vietnamese society. By the end of the year, 2,437 had been neutralized in Quang Nam, representing over 40 percent of the estimated VCI strength in the province. Not only were the results well over the established goal, but also they were the highest of any province in RVN and represented more than ten percent of the national total. Also, they reflect the change in neutralization criteria for 1970, which now counts only those VCI killed, rallied, or sentenced to at least a year's confinement--not merely captured. A backlog of unprocessed captured suspects was the principal problem incurred during the year and was under continual scrutiny by province leadership.

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These gains have not gone unnoticed among the Viet Cong. In February, captured enemy documents posted warnings to cadre members concerning increasing Phung Hoang efforts and proscribed entry into GVN-controlled areas unless absolutely necessary. A VC document captured during August, addressing all VC village committees, outlined the organization of and methods employed by Phung Hoang, exhorting that every effort be made to infiltrate the program and eliminate key personnel. Additionally, indications are that VC Quang Da Headquarters (in Quang Nam) has trained and assigned loyal, experienced political cadre to VC village committees, specifically tasked to counter the Phung Hoang and Chieu Hoi Programs. Also encouraging was information that the communists were experiencing difficulty in recruiting qualified people to replace the high level cadre members being neutralized--directly attributable to heightened public awareness of Phung Hoang and increased willingness to cooperate.

Communist infrastructure in Quang Nam was debilitated by yet another factor; as a result of a serious shortage of professional cadre in Cambodia, Hanoi had issued instructions for youth recruitment and transfer of VC cadre from their native locales to Cambodia. Along with cadre personnel as military or political advisors, the youth recruits were being transferred to augment communist forces operating in Cambodia. The quota levied on Quang Da Headquarters was 1,000 young men between the ages of 16 and 25.

-Chieu Hoi Program

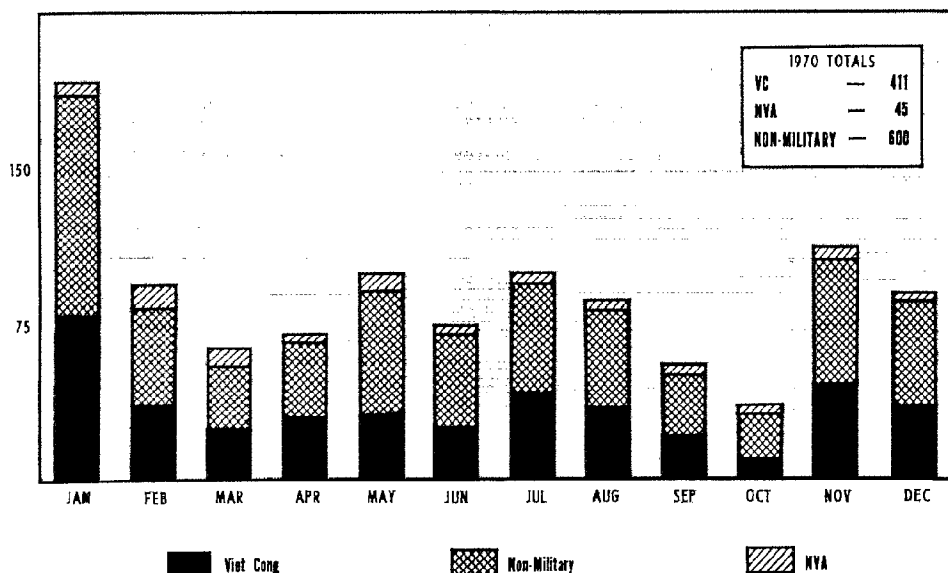
The GVN Chieu Hoi Program--in being throughout the war--encourages Viet Cong and North Vietnamese soldiers to rally to the government cause by offering them amnesty and a better life. Inducements include food, clothing, shelter, vocational training, employment, cash rewards for weapons and information, GVN citizenship (with the right to vote), and reunion with families. These ralliers often provide III MAF and the GVN with valuable intelligence, especially in regard to enemy troop and materiel locations.

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During 1970, Chieu Hoi trends (shown below) generally reflected enemy or friendly activity as well as other prevailing circumstances. For example, the sharp increase in Hoi Chanh during November resulted from pressure applied by Operation HOANG DIEU and increased hardships caused by floods. Armed propaganda teams accompany ARVN elements in the course of combat operations, providing the wherewithal to adjust psychological appeals to the indicated motivations in vogue at the moment--determined by on-the-scene interrogation of Hoi Chanh.

QUANG NAM CHIEU HOI RESULTS: 1970



Combined Action Program

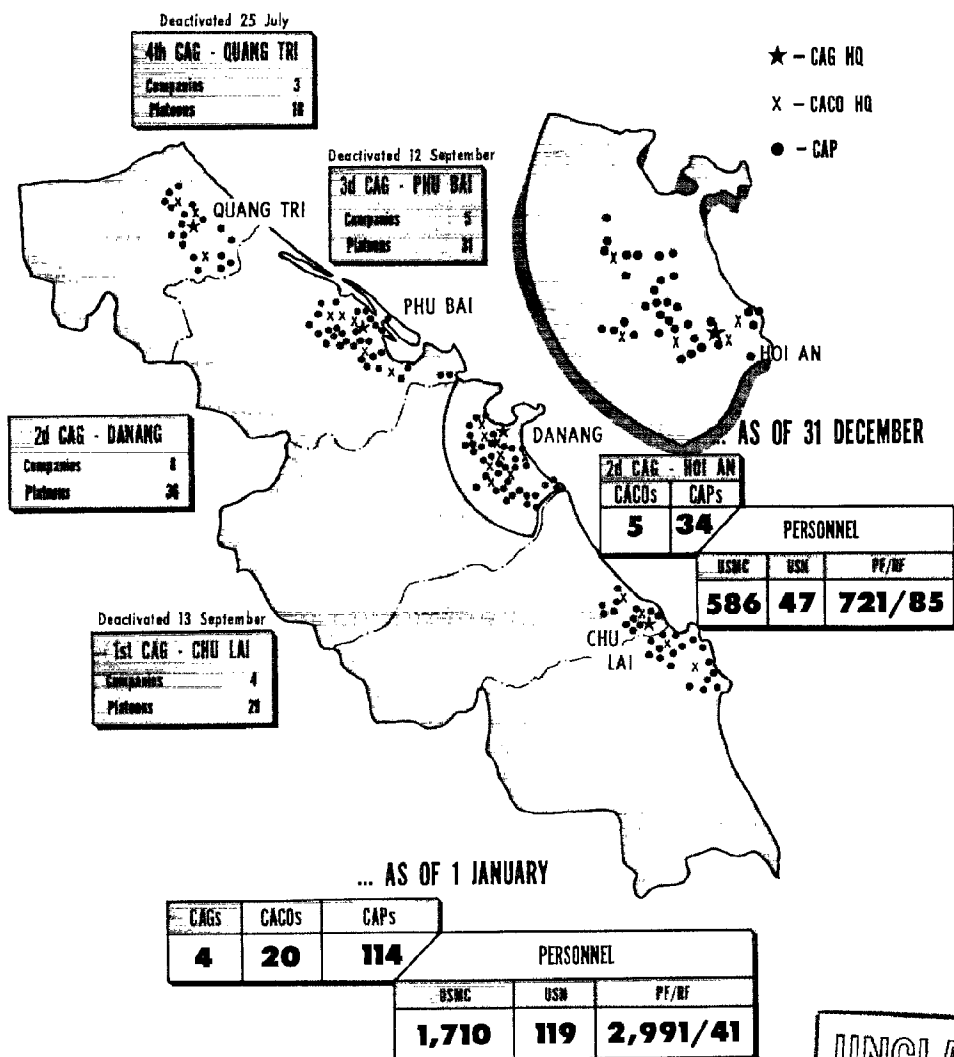
During 1970, the Combined Action Program reached its zenith strengthwise before incremental cutbacks paralleling III MAF strength decreases. On 11 January, the Combined Action Force (CAF) came into being--by creation of a headquarters element over the four existing combined action groups (CAG)--to facilitate command and control of assigned Marine elements and to participate with GVN authorities in

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positioning combined action platoons (CAP) for maximum community development and security. Initially subordinate to III MAF, the CAF came under operational control of XXIV Corps on 26 March, after that headquarters assumed responsibility for all US military operations in MR 1. As combined action influence constricted to Quang Nam, operational control of the CAF reverted to III MAF on 1 September. The following map compares combined action organization and strengths at the beginning and end of the year.

EVOLUTION OF COMBINED ACTION PROGRAM : 1970



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Progressive decrement of the CAF commenced in June, when two combined action companies (CACO) of 1st CAG deactivated, followed in July by disestablishment of 4th CAG in Quang Tri province. By the end of August, all CAPs outside Quang Nam had been deactivated, followed shortly by 1st and 3d CAG headquarters in September. Finally, on 21 September, the CAF headquarters closed down, leaving 2d Combined Action Group operating in Quang Nam with five CACO headquarters and 34 CAPs. Personnel assets stabilized at approximately 600 Marines and Navy corpsmen and 800 territorials, a considerable drop from the program's highest totals registered six months previous--some 2,000 Marines and corpsmen with about 3,000 Popular and Regional Force (PF and RF) soldiers.

CAP Marines are expected to train the PF element of the platoon for independent operation. In general, 1970 brought heightened opportunities to pursue this mission, as ARVN and Free World forces applied strong pressure against enemy presence not only in the populated lowlands but also in his mountain refuges. As a result, communist forces slackened overt operations, attempting mainly those tactics common to guerrillas--mining, terrorism, and attacks by fire. Combined action platoons, recognizing the opportunity, accelerated training programs in order to prepare the PFs for eventual independent action. Additionally, reduction of external threat allowed the CAPs to work more closely with GVN officials to identify VC sympathizers and infrastructure. Although the focus had shifted to development of residual skills, day and night operations--often the best classroom--continued at a level consistent with CAF/CAG strength, as shown in the following graphs. What is not reflected is the burgeoning operational activity of the entire territorial force structure, based in many cases on skills developed by previous participation in the Combined Action Program.

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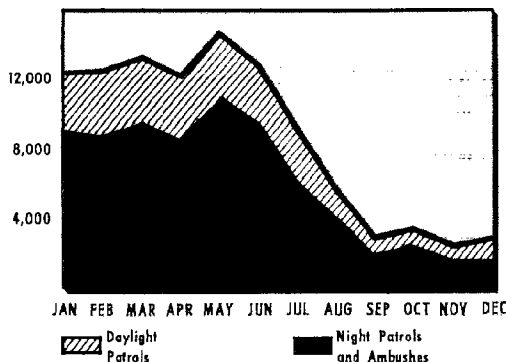
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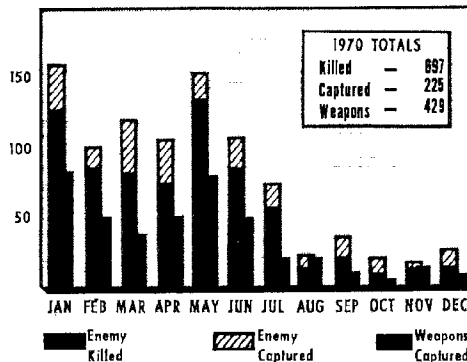
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COMBINED ACTION ACTIVITIES: 1970

OPERATIONS CONDUCTED



ENEMY LOSSES



Combined Unit Pacification Program

Initiated in the latter months of 1969 as the Infantry Company Intensive Pacification Program (re-named on 8 January), the Combined Unit Pacification Program (CUPP) was an outgrowth of the highly successful Combined Action Program and served to augment that effort, employing basic CAP principles and profiting from CAP experiences. At that time, apparently recognizing GVN inroads toward popular support, the communist leadership had broken up regular units into small elements for counterpacification employment against the outlying rural communities. To thwart these moves, III MAF and the ARVN I Corps Headquarters conceived the CUPP as a means to extend community security accruing from expanded US/territorial force partnership. Conceptually, an infantry company is employed with its headquarters collocated with the district headquarters and each infantry squad paired off with a PF platoon--much as in the case of the Combined Action Program.

The two programs, although bearing a superficial resemblance, are distinctly different. CAP Marines are specially selected and trained--including basic language instruction--for assignment to a

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unit under operational control of the local GVN district chief. Supporting arms requests and tactical coordination are conducted through liaison with Free World forces. On the other hand, Marine CUPP units are squads from 1st Division rifle companies, and operational control and fire support are exercised through existing Division channels. Other than military and RVN preparatory training, CUPP Marines receive no formal indoctrination. While units employed in CUPP roles may not have full potential for residual village security enhancement which has characterized the Combined Action Program, they have economically extended the hamlet and village pacification envelope. Additionally, since company integrity is maintained, these rifle squads can be readily reassembled for conventional combat, should circumstances require.

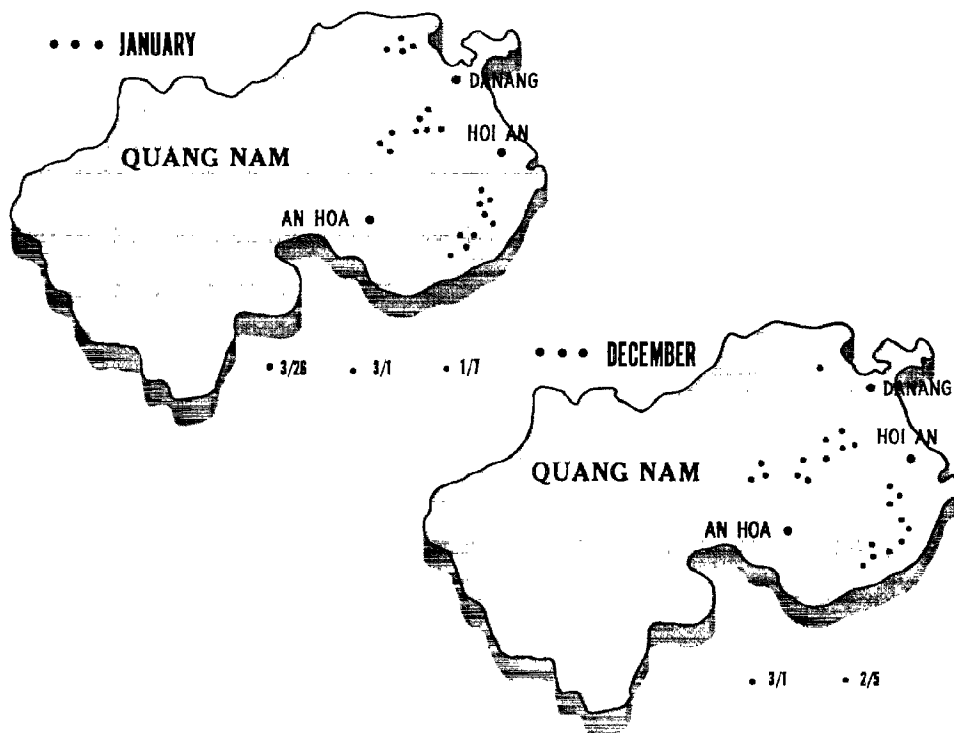
The first Marine unit so employed--Company M, 1st Marines--deployed squads to three hamlets near Hill 55 during November 1969; in December, the commitment was expanded to eight hamlets. By the end of January, Company K, 26th Marines and Company A, 7th Marines had broadened Quang Nam coverage to 21 hamlets. Subsequent redeployment of the 26th Marines and later the 7th Marines brought about shifts in operational areas and inherent CUPP responsibility. Whenever possible, these tactical repositionings included exchanges of personnel to retain experienced Marines within established CUPP teams. At the end of 1970, 1st and 5th Marines continued CUPP participation in 22 hamlets throughout Quang Nam, as shown on the following page. As can be seen, CUPP hamlets are generally farther inland than their CAP counterparts, hailing back to the program's initial purpose--strengthening the security screen along the populated littoral against NVA/VC counterpacification plays. On the other hand, CAP assignments have generally been directed toward strengthening territorial forces along the major lines of communication, thus enhancing the free flow of traffic necessary for governmental and commercial development.

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USMC COMBINED UNIT PACIFICATION PROGRAM LOCATIONS: 1970



During December, a new CUPP unit was established in Huong Que hamlet, located just to the north of Baldy combat base in the 5th Marines area. This move increased the number of Vietnamese enjoying CUPP-enhanced security to more than 31,000--a record high for the program. While no further expansion of the Combined Unit Pacification Program was contemplated at end-year, the mantle of security provided by the presence of CUPP units is expected to spread, encompassing additional civilians--albeit at a moderate rate.

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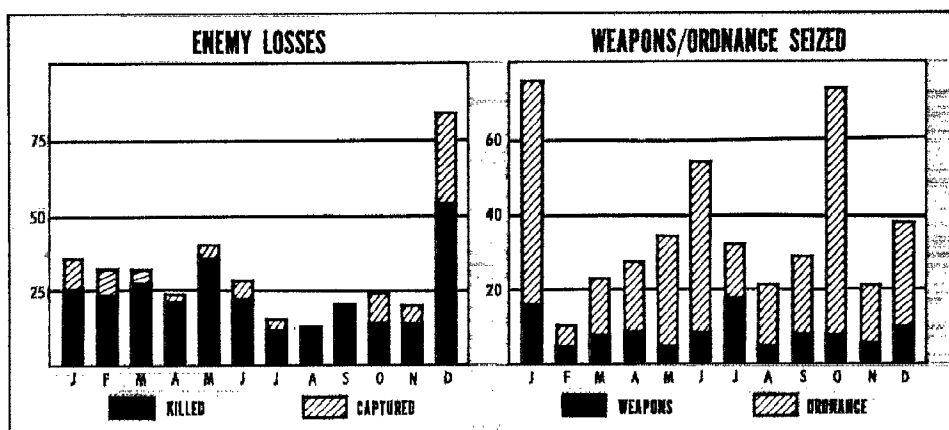
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The month's combat activity resulted in 54 enemy dead, 30 captured, and 12 rallied, by far the highest results achieved since the program's inception. Highlighting the action, a CUPP team of Company G, 5th Marines repulsed a predawn assault by approximately 40-50 members of the 70th VC Local Force Battalion (normally operating in Quang Tin) under covering mortar fire on 9 December. In the pitched battle three miles southwest of Baldy, Marines and Regional Force soldiers drove off the attack with infantry action and supporting arms. A sweep of the area revealed 23 VC dead, eight weapons, and a variety of abandoned ordnance.

A review of the year's combat results is shown below.

MARINE CUPP RESULTS: 1970



ARVN Operations in Support of Pacification

1970 was a year of marked transition for ARVN participation in Quang Nam--both organizationally and operationally. While a variety of forces regularly conducted combat operations throughout the province, no central command headquarters--save

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I Corps--had ever been permanently established for Quang Nam-based units. To that end, a division-equivalent force, in development for more than a year, emerged in July. Its permanent membership included Quang Da Special Zone (QDSZ) Headquarters, 51st ARVN Regiment, 1st Armored Brigade, and 17th Armored Cavalry Squadron. Initially created to coordinate security within the city of Danang, Quang Da Special Zone Headquarters was gradually upgraded through infusion of knowledge, staffing, and equipment necessary to conduct maneuver, fire support coordination, and logistic evolutions of a major tactical headquarters. A good deal of assistance toward achieving this posture was provided informally by 1st Marine Division.

The facilities previously occupied by 1st Tank Battalion at Hill 34 southwest of Danang seemed a logical command post location, and QDSZ Headquarters relocated there during the spring, as it prepared to assume its expanded responsibilities. From time to time, other forces have come under operational control of QDSZ--44th and 64th Artillery Battalions, 1st Ranger Group, and the 258th Vietnamese Marine Corps Brigade, to mention a few. The principal advantage rising from this development has been provision of unity of command for forces in Quang Nam while at the same time freeing I Corps Headquarters from localized tactical considerations.

Meanwhile, a GVN reorganization having impact on force structuring in Quang Nam occurred almost simultaneously. On 1 July, four military regions were established congruent with existing corps tactical zones, and the Regional and Popular Forces were incorporated into the ARVN as separate entities; however, territorial force organization and employment have not changed. The main difference is that the RF/PF chain of command now courses through the military region/corps commanders rather than directly to Saigon.

Types and extent of operations varied throughout 1970--from small, local activities to multibat-

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talion, far-flung assaults in the hills--made possible to a large degree by the aforementioned developments. At the beginning of the year, ARVN efforts produced a spattering of relatively limited operations across the province in the vicinity of Barrier Island, west of Hill 55, around Thuong Duc, and near An Hoa. During the summer, attention shifted west, and three operations (HUNG QUANG 1/32B and 1/32D and VU NINH 12) thrust into enemy base areas and refuges in the mountains. Contact was generally limited, and results were modest.

However, October brought a distinct change of pace. On the 22d, Operation HOANG DIEU commenced, featuring maximum coverage of inhabited regions by small unit maneuver to block enemy antipacification tactics. This effort employed all available forces--51st ARVN Regiment, 1st Ranger Group, 2d and 3d Troops of the 17th Armored Cavalry Squadron, and some 300 RF and PF platoons--truly a total commitment. III MAF and 2d ROKMC Brigade participated in their respective operating areas, so that the entire populated lowlands were saturated with GVN military and paramilitary and Free World forces. Although temporarily restricted by the end-month floods, ARVN and territorial units rapidly pressed into areas cleared by receding waters, making contact with disadvantaged enemy elements. The results were impressive. At the operation's close on 2 December, GVN forces had killed 504 NVA/VC, captured 398 prisoners and 147 weapons, and detained 536 suspects for questioning and further classification--all in areas where they posed the greatest threat to GVN security. Additionally, 122 Vietnamese rallied to the government cause.

To consolidate these gains and keep enemy forces off balance, GVN leadership directed a follow-on saturation operation, and to that end, HOANG DIEU 101--in progress since 24 November in the vicinity of northern Barrier Island--was expanded to include the whole of Quang Nam with 51st ARVN Regiment, 1st Ranger Group, 1st Armored Brigade, and all territorial

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forces within the operating area as participants. Quang Da Special Zone Headquarters provided tactical control for the GVN aspects of the operation. On the 17th, III MAF and 2d ROKMC Brigade entered HOANG DIEU 101, thus assuring consistent pressure throughout the province. By the end of the year, ARVN and territorial units had counted 198 kills, 23 prisoners, and 57 enemy weapons, once again attesting to the value of coordinated saturation operations.

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AIR OPERATIONS

December air operations by 1st Marine Aircraft Wing followed the pattern first seen in October, except that in-country attack sorties (539) decreased, and out-of-country strike/armed reconnaissance missions (748) reached a level not flown since the period late-1968 through January 1969. Helicopter squadrons of Marine Aircraft Group-16, based at Marble Mountain Air Facility, fulfilled III MAF taskings with 24,079 sorties that lifted over 48,600 passengers and 3,100 tons of cargo. Although the number of sorties increased slightly over the past two months, passengers and cargo lifted during December--a fair barometer of combat activity--was the lowest registered this year.

A review of 1970 events and records clearly indicates 1st Wing provided requisite air support while gradually scaling down operations as necessitated by participation in KEYSTONE redeployments. During each increment, special consideration was given to keeping a balanced structure of aircraft, maintenance, and control assets for continued operations. Early months of the year saw helicopter units gradually removed from northern MR 1 until, at end-year, remaining rotary wing squadrons were consolidated at Marble Mountain, with the primary mission of supporting the 1st Marine Division. During the same time frame, one helicopter and two fixed wing squadrons were translocated to California bases. Also, Marine Aircraft Group-12 (two support units and one fixed wing squadron) redeployed to Iwakuni, Japan. In mid-1970, more aircraft and support units left RVN. However, it was not until 13 October, as final elements of a second Marine aircraft group departed Chu Lai, that 1st Wing constricted to its end-year posture. Thus in ten months, 1st Wing had redeployed 15 squadrons in the third and fourth redeployment increments.

Dips and increases in fixed wing and helicopter sortie totals, shown on the following graphs,

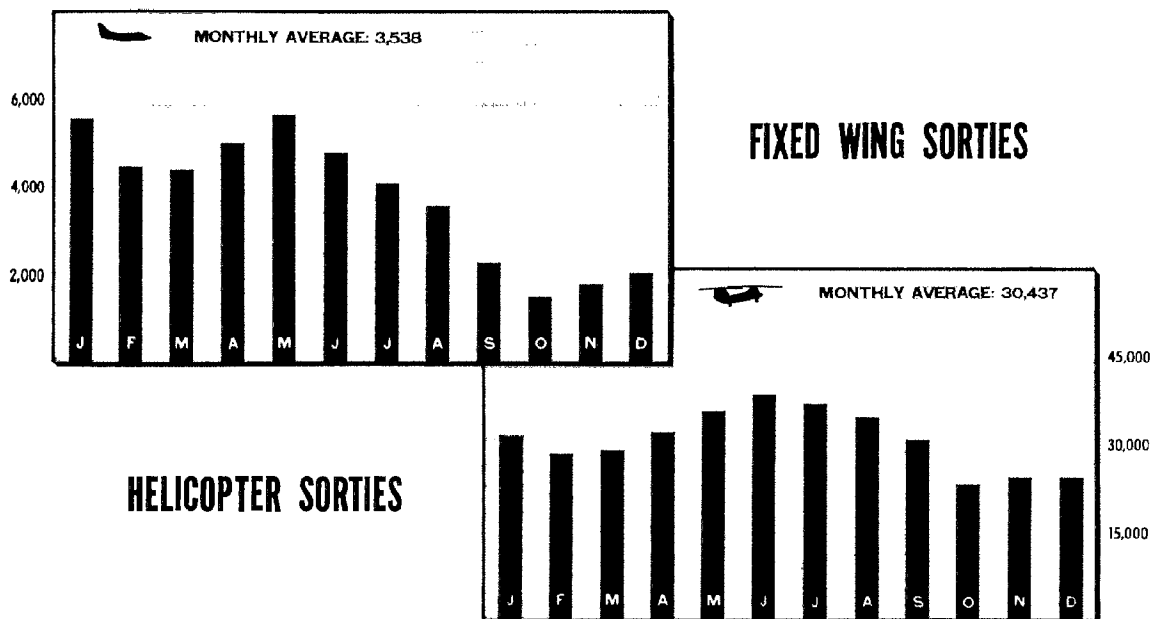
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correlate with readily identifiable causes. The lows in February were directly attributable to squadrons redeploying in the third KEYSTONE increment, while subsequent rises reflect improved flying conditions in MR 1. Fixed wing decreases after May relate to a combination of the fourth redeployment increment, a limitation of 1,300 attack sorties per month imposed on 1st Wing after 17 August, and onset of the monsoon season in Laos. The slight fixed wing sortie rise during November and December resulted from resumption of interdiction of supply routes in Laos, since lucrative in-country targets were few and MR 1 weather had deteriorated. Helicopter sorties reached the 1970 high in June, then steadily decreased until the low was established in October. Major factors contributing to this effect were fourfold--redeployments, adverse weather, reduction of support required by 1st Marine Division, and the 1st Wing management policy to bring utilization rates down to match programed supply and maintenance support.

MARINE AIR OPERATIONS: 1970



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Force Reduction and Consolidation

During the first half of 1970, 1st Marine Aircraft Wing had assets to perform a complete array of functions--offensive air support, anti-air warfare, aerial reconnaissance, assault support, and control of aircraft and missiles. As the year progressed, enemy activity declined and aviation units were selected for redeployment. Among the many considerations in this process, primacy was given to retaining aviation units capable of providing balanced offensive air support. Thus, remaining fixed wing squadrons had three basic capabilities--day attack, all-weather attack, and fighter. With this mix, ground units were assured of not only close air support considered an essential, integral part of Marine combat power but also fighter protection to maintain air superiority. Likewise, a multicapable helicopter force was selected for retention in RVN. The resultant group had light, medium, heavy, and armed helicopters.

A comparison of 1969 and 1970 in-country fixed wing support by Marine aircraft points up a 51 percent reduction of close air support, direct air support, interdiction, and combat air patrol flights this year. Combat support sorties (multisensor imagery, electronic and visual reconnaissance, forward air controller (airborne), artillery spotting, and escort) also declined at about the same rate. Redeployments had the largest impact on reducing fixed wing operations; however, the 1,300-sortie ceiling placed on attack missions was a strongly contributing factor. The former is readily apparent from a look at tactical aircraft population of 1st Wing for the year--a 182 fixed wing aircraft in-country inventory on 1 January was reduced to 73 by end-year.

Marine Aircraft Group (MAG)-11 at Danang was the sole remaining fixed wing group in-country at year end. MAG-12, the first group to depart in 1970, left in February. One of its squadrons, Marine Attack Squadron (VMA)-223, commenced aircraft flight

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ferry to El Toro, California in late January, and another, VMA-311, was transferred from MAG-12 to MAG-13 (both at Chu Lai) then to MAG-11 at Danang in July. VMA-211, along with Headquarters and Maintenance Squadron (H&MS)-12 and Marine Air Base Squadron (MABS)-12, accompanied the administrative and tactical command element of MAG-12 to Iwakuni in February.

The second fixed wing aircraft group to redeploy, MAG-13, closed out operations as final elements of H&MS-13 and MABS-13 departed Chu Lai in mid-October, and control of the airfield was transferred to the US Army. Before that, however, two of the Group's squadrons (Marine Fighter/Attack Squadron (VMFA)-115 and VMA-311) were reassigned to MAG-11, an evolution completed in late August. Then during September, the two remaining fighter/attack squadrons, VMFA-122 and 314, flight ferried their planes to Kaneohe, Hawaii and El Toro, California, respectively. Thus, a chapter of Marine aviation history which saw the SATS (Short Airfield for Tactical Support) operational in a combat environment was brought to a close. After an austere beginning in May 1965, from scratch to a fully operational SATS within three weeks, Chu Lai Air Base grew to an all-weather jet strip with a 10,000-foot concrete runway by October 1966. MAG-12's A-4 squadrons were the sole tenants during that first year, followed by MAG-13 with F-4 squadrons when the permanent runway was completed.

With the transfer of Chu Lai Air Base, all fixed wing assets of 1st Wing were located in MAG-11 at Danang. This concentration of planes facilitated maintenance, liaison, and control matters. Additionally, the central location was optimal for performance of support tasks flown for non-USMC units.

Sortie Allocations

After the departure of Marine Composite Reconnaissance Squadron-1 in July, 1st Wing could no longer provide multisensor imagery and electronic reconnaissance missions used primarily out-of-country.

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Nevertheless, 1st Wing continued to provide diversified air support for other forces--combat air patrols over MR 1, Laos, and Gulf of Tonkin; close air and helicopter support for all Free World forces in MR 1; and interdiction/armed reconnaissance strikes against supplies moving over the Ho Chi Minh Trail.

The following chart depicts the number of 1st Wing sorties flown in support of allied forces during the year.

ALLOCATION OF 1ST WING SORTIES: 2 JAN - 31 DEC 1970

AIRCRAFT	USMC	ARMY	ARVN	ROKMC	SPECIAL FORCES	7TH AIR FORCE	NAVY TF-77	TOTAL
A-4E	3,976	3,366	685	118	0	644	5	8,794
A-6A	2,237	2,632	126	14	0	1,609	0	6,618
F-4B	5,135	6,118	1,003	158	0	1,588	574	14,576
FIGHTER/ATTACK TOTAL	11,348	12,116	1,814	290	0	3,841	579	29,938
TA-4F	939	2	5	0	0	1,022	41	2,009
RF-4B	709	0	0	0	0	245	3	957
EA-6A	587	0	2	0	0	281	179	1,049
OV-10A	6,832	82	57	42	0	5	0	7,018
RECONNAISSANCE TOTAL	9,067	84	64	42	0	1,553	223	11,036
CN-46	171,983	110	1,447	9,889	405	0	37	183,871
CN-53	41,765	469	3,212	7,926	361	6	2	53,741
COMBAT/LOGISTIC TOTAL	213,748	579	4,659	17,815	766	6	39	237,612
UH-1E	59,031	866	601	10,674	186	0	0	71,358
AN-1G	43,567	434	1,232	1,377	338	48	0	46,996
CMD & CONTROL/ ARMED HELO TOTAL	102,598	1,300	1,833	12,051	524	48	0	118,354

* Primary mission--includes small number other type missions.

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Of the 18,640 fighter/attack sorties flown by 1st Wing since 1 January, all but 38 percent were in support of other Free World forces. While many were provided for interdiction in Laos, the majority were flown for US Army and ARVN units in MR 1.

Since the US Army--and increasingly the ARVN--has organic helicopter assets, 89 percent of USMC rotary wing sorties were utilized for assault support of III MAF in Quang Nam. The majority of the remaining 11 percent satisfied helilift requirements of 2d ROKMC Brigade, with a small number of missions supporting ARVN combat assault operations.

In-Country Fixed Wing Operations

In line with the tempo of December combat activity, fixed wing air support in-country declined to the 1970 low as Marine aircraft flew only 890 attack and reconnaissance sorties in MR 1. A breakdown of missions flown shows 299 for close air support (CAS), 190 for interdiction, and 50 for direct air support. All but 100 were provided to 1st Marine Division, and 92 of these went to US Army elements. Paralleling the low sortie rate was a proportionate reduction in air munition expenditures by attack aircraft--1,440 tons of bombs and 411 napalm canisters were delivered against in-country targets. Additionally, 3,306 2.75-inch aerial rockets were fired by Marine Observation Squadron (VMO)-2 pilots flying OV-10As. Most of these had white phosphorus war heads to mark targets, as Bronco crews logged 84 forward air controller (airborne) (FAC(A)) sorties. VMO-2 continued to provide valuable intelligence information, enabling ground commanders to assess enemy capabilities and activities in Quang Nam, by logging 222 visual reconnaissance and 15 photograph missions during December. Also complementing other intelligence collection means were TA-4F flights providing surveillance of hinterland enemy resupply routes in and leading to Quang Nam. On one such mission on 11 December, information gathered revealed Route 548, which runs

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the length of A Shau Valley, was being heavily trafficked by vehicles. Other flights confirmed Routes 926 and 922 in Laos, which lead to Routes 616 and 9222 in MR 1, also open to traffic.

Missions launched from the alert pad have consistently produced some of the best results. December was no exception, as evidenced by the destruction wrought by some of the 46 scramble sorties contributing to the 253 attack missions flown in MR 1 by Marine Attack Squadron-311. One of three sections of A-4Es launched from the alert pad on the 12th struck an enemy position seven miles southwest of An Hoa, destroying nine structures, damaging three more, and obliterating three bunkers with 500-pound bombs. On the 24th, another section of Skyhawks attacked a bunker site on Route 9662 near Base Area 614 on the RVN/Laos boundary. After the smoke had cleared, the airborne controller counted seven bodies and a destroyed field fortification.

Some 290 other in-country attack flights were logged by Marine Aircraft Group-11: 126 by F-4Bs, 157 by A-6As, and three by TA-4Fs. Forty percent of these were interdiction missions, and the remainder were for CAS. On one of the latter flights in the afternoon of 3 December, two A-6As from Marine All-weather Attack Squadron-225 dropped 22 500-pounders onto a position on the east bank of the Thu Bon river 13 miles south-southwest of An Hoa. Visible damage reported by the VMO-2 FAC(A) was 25 structures and one bunker demolished. A section of F-4Bs from Marine Fighter/Attack Squadron-115 also obtained other notable results 24 miles southwest of Quang Ngai City with six 500-pound, high-drag (snake eye) bombs and three napalm canisters on the afternoon of the 22d. An Americal Division airborne controller counted eight structures destroyed, eight damaged, and two secondary fires blazing amidst the rubble.

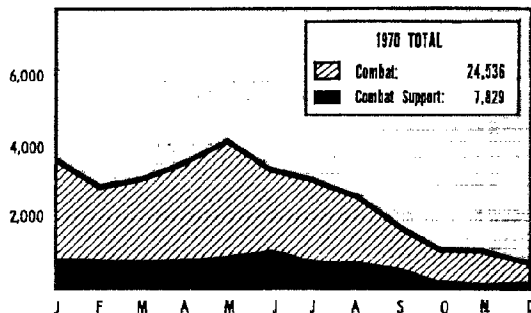
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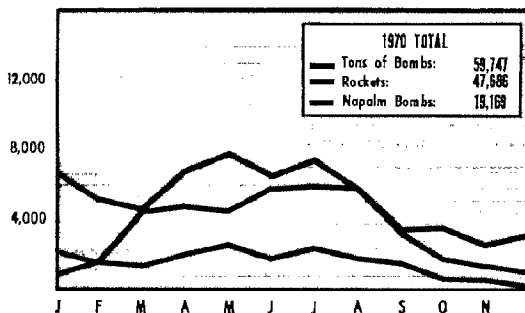
The following graphs compare December in-country air operations with totals since the first of 1970.

IN-COUNTRY FIXED WING SUPPORT BY MARINE AIRCRAFT : 1970

SORTIES FLOWN



ORDNANCE DELIVERED



MONTHLY SORTIE TOTALS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
COMBAT	3,036	2,349	2,486	2,920	3,316	2,497	2,572	2,056	1,190	812	763	539
COMBAT SUPPORT	735	605	641	763	928	1,046	713	731	622	354	340	351

Helicopter Operations

Rotary wing operations by squadrons of Marine Aircraft Group-16 in December followed the two-month downward trend in support required by ground units. Although flying a few more sorties (24,079) than logged in each of the previous two months, the 48,676 passengers and 3,569 tons of cargo carried were lows for the year. Conforming with the 1970 pattern of operations, almost 88 percent of this month's sorties supported III MAF. While RVNAF helicopter capability and assets have steadily improved, they have none powerful enough to move items such as artillery pieces. Therefore, the greatest percentage of December flights for other forces was logged by CH-53D aircrews helilifting logistic materiel for ROKMC and ARVN units in Quang Nam.

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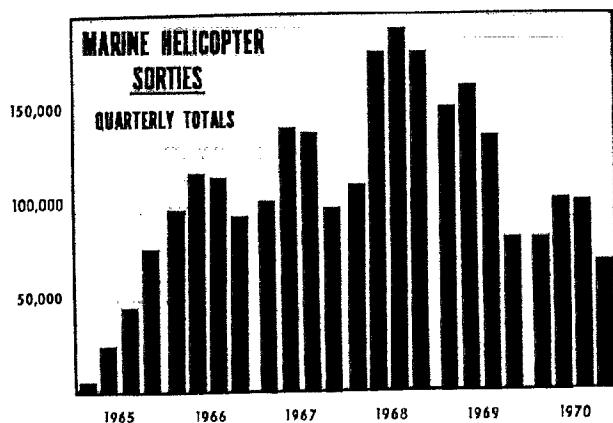
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The three CH-46D squadrons and one CH-53D squadron hauled all the cargo and all but 3,285 passengers, which were transported by UH-1Es. These lifts, plus medical evacuation, command and control, and reconnaissance team insertion/extraction missions flown by the four squadrons, accounted for more than 15,300 of the MAG-16 sorties.

UH-1E-equipped Marine Light Helicopter Squadron (HML)-167 and HML-367 with AH-1Gs flew the other 8,735 sorties recorded during December. All of the 3,471 flights by HML-367 and nearly 1,400 by HML-167 were armed helicopter missions escorting CH-46Ds and CH-53Ds. Further flights tallied by UH-1E aircrews included 3,172 for command and control of ground operations. Included in these are daily reconnaissance flights which often produce immediate results. For example, on the morning of 26 December, two UH-1E armed helicopters flying a visual reconnaissance of likely rocket firing areas were directed to an area seven miles south-southwest of Danang to confirm a ROKMC sighting. Two VC were observed preparing six 122mm rockets for firing. The VC were killed, one rocket was destroyed, and the site neutralized by 2.75-inch rockets and machine gun fire from the helicopters.

During 1970, 1st Wing helicopters flew 29 percent fewer sorties (365,247) and transported one percent (6,637) more passengers, but 42 percent (47,674 tons) less cargo than in 1969. These variations were caused by a combination of factors, the most significant of which was late-1969 redeployment of the 3d Marine Division, which depended largely on helicopters for movement of men and some supplies. Withdrawal of 26th Marines, 7th Marines, and supporting artillery units-- as well as fewer large unit operations in 1970--



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strongly influenced the decrease in cargo tonnages. First Division quick reaction tactics capitalizing on intelligence-developed targets contributed to increases in passengers carried.

1970 was also highlighted by continuing efforts toward developing innovative and improved air support tactics and techniques. One especially noteworthy evolution was CH-53D flame drop operations that confirmed the feasibility and effectiveness of helicopter-delivered napalm in 55-gallon drums. This technique was used on a large scale in an operation which integrated fixed wing aircraft, command and control planes, transport and armed helicopters, and Marine aviation expertise for a coordinated attack effort that enabled ARVN units to move freely over terrain previously denied.

Another tactic involved coaxial mounting of a Night Observation Device (NOD--AN/TVS-4) with a searchlight (AN/VSS-3) on the side of a UH-1E. At an altitude of 500 feet and speeds of 40 to 60 knots, the NOD UH-1E was followed by one or two gunships, which flew 1,000 and 2,000 feet in trace, keeping station on the red beacon of the forward aircraft. When a NOD operator acquired a target, this information was broadcast to the escorts, and the observation helicopter took up an optimum observation pattern. The armed helicopters reported when in position, whereupon the NOD observer turned on the searchlight, clearly illuminating the target for gunship firing runs. This tactic proved to be especially effective when reacting to specific target intelligence vis-a-vis random searching of a large area.

Use of the XM-3 Airborne Personnel Detector (APD) was continued during 1970. This device was also carried by a UH-1E to collect information concerning enemy movement and locations and was particularly useful in mountainous, non-populated regions. The APD was designed to locate enemy presence by sensing their ammonia effluence or condensation nuclei generated by combustion associated with human

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activity, such as perspiration, fires, and engine emissions. Initially during APD missions, armed helicopters escorted the UH-1E flying a zig-zag pattern into the wind to collect air samples at treetop level. Positive readings were broadcast to one of the escorts and plotted on a map. As experience was gained, an OV-10A was added to the package allowing a FAC(A) to direct immediate artillery fire or air strikes on the target. Targets not attacked during a mission were evaluated in light of other intelligence data and, if warranted, subsequently hit with artillery barrages or AN/TPQ-10 bombing missions.

Only two helicopter squadrons redeployed out of MAG-16 and RVN in the past 12 months. The first was Marine Heavy Helicopter Squadron (HMH)-361, which departed 29 January with 14 CH-53As embarked aboard the USS Tripoli (LPH-10) for relocation to Santa Ana, California. This left HMH-463 with 23 aircraft, three CH-53As and 20 of the more powerful D models, to provide the heavy lift capability for III MAF.

To consolidate all MAG-16 helicopter assets at Marble Mountain and increase the safety of operations at that field, Marine Observation Squadron-2 was transferred to MAG-11 at Danang Air Base. This movement, along with the departure of HMH-361, made room at Marble Mountain for the two Phu Bai-based CH-46D squadrons (HMM-161 and 262), thus positioning these units closer to supported forces.

The structure and composition of MAG-16 remained unchanged from January until August when the colors and a few personnel of Marine Medium Helicopter Squadron-161 were shifted to Santa Ana for reestablishment. Some of the Squadron's helicopters were reassigned within MAG-16, but most of them were shipped to MAG-36 at Futema, Okinawa. Despite these redeployments, the ratio of helicopter assets available to supported units was more favorable in 1970 than 1969--a factor which greatly enhanced 1st Division operations.

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-Medical Evacuation Missions

During 1970, 1st Marine Aircraft Wing maintained two medical evacuation helicopter packages ready for rapid response to requests for aid. From 0700 to 1900, each package consisted of two CH-46Ds and two armed helicopters, located at Baldy combat base and Marble Mountain Air Facility on a 15-minute alert status. Since there were normally fewer calls for medical evacuation after 1900, the Baldy medevac package returned to base, and only the Marble Mountain crews remained on alert at night.

To reduce response time upon request for daylight medical evacuation, one pilot of each aircraft readies the helicopter for flight, while the other obtains a quick briefing on the mission. The flight leader normally designates the armed helicopter section leader as the flight coordinator whose enroute responsibilities include obtaining flight clearances, navigating, maintaining communication, and receiving a landing zone (LZ) brief, including identification of the zone. If the zone is not secure, the armed helicopters quickly identify all friendly positions and locate the enemy. After suppressing enemy fire, a smoke screen is often built up with white phosphorus rockets to obscure the LZ for about two minutes under normal wind conditions. The pick-up helicopter makes the extraction covered by suppressive fire, if needed. On climbing to a safe altitude, contact is made with the Direct Air Support Center or medical regulator who provides information as to which facility to deliver the patient.

Night medical evacuation operating procedures are essentially the same. If weather conditions are adverse, the flight is monitored by radar which can provide position information and bearing/distance to the LZ. When weather ceilings of less than 500 feet prevail, only one transport and one armed helicopter are launched, reducing risk to aircraft and crews. The two other aircraft start engines and monitor events over radios, but remain on the ground unless

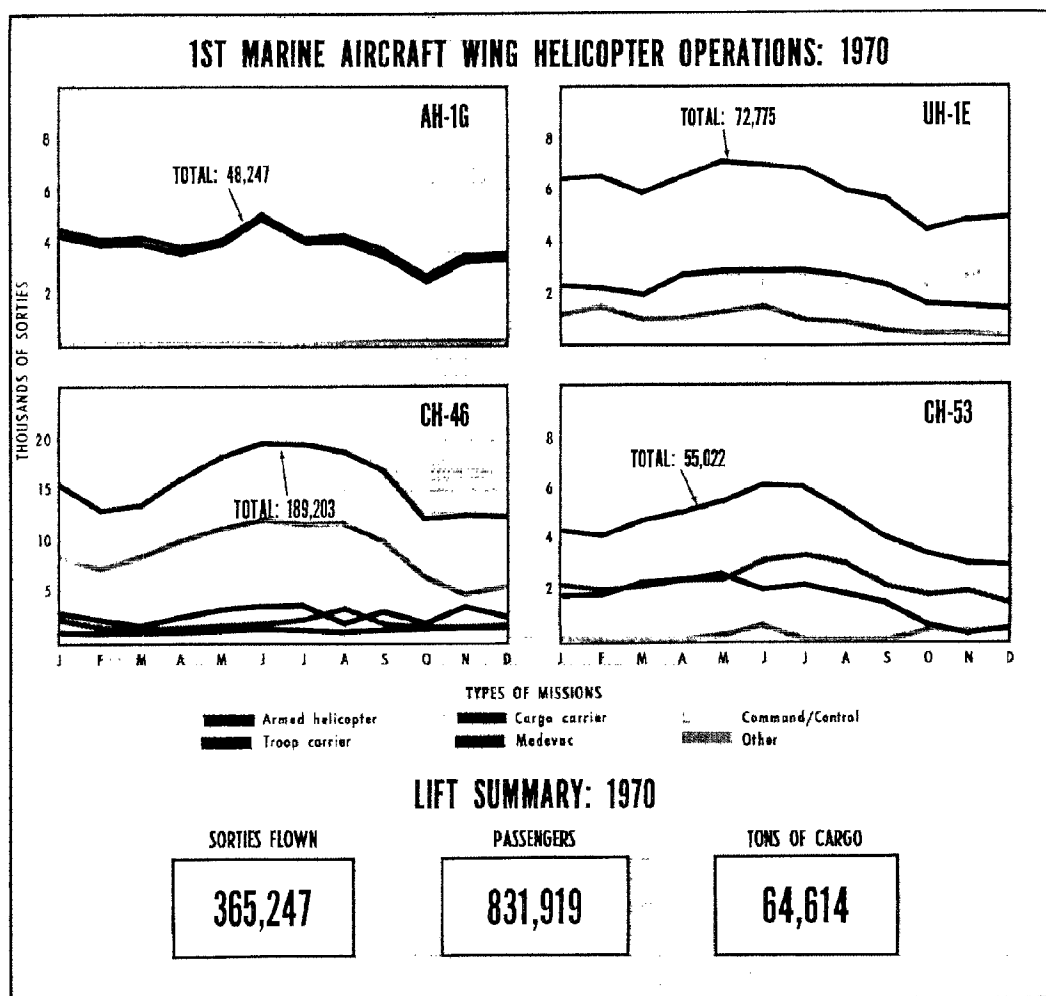
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required. On occasion, fixed wing aircraft or CH-53Ds provide illumination of the landing zone and surrounding area with flares.

Using the tactics described above, some 20,464 medical evacuation sorties were flown by 1st Wing helicopters during 1970. These medevac flights transported more than 17,951 casualties to medical facilities in a total effort designed to provide timely medical treatment. The medevac missions are included in the graphs showing MAG-16 helicopter operations for 1970.



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Out-of-Country Operations

In an increased effort to destroy logistic items before they reach enemy troops in RVN, Laos, and Cambodia, utilization of Marine assets escalated to 748 interdiction and armed reconnaissance sorties during December for strikes against lucrative trans-shipment areas, trucks hauling supplies, and lines of communication. Major attention was again focused on the four entry interdiction boxes near the Mu Gia, Ban Karai, and Ban Raving passes. In addition to destroying enemy supplies, the bombing also forced temporary storage of materiel, potentially increasing the productivity of strikes against backlogged truck parks and storage areas. During the month, 1st Wing aircraft flying these missions scored 191 secondary fires and explosions, 47 trucks destroyed and 15 damaged, 165 road cuts and slides, and 25 barrels of petroleum destroyed.

Pilots of VMA-311 logged 368 of these deep support missions against Laotian targets. Launched in flights of two to hit preplanned interdiction point targets during daylight, each Skyhawk carried eight 500-pound bombs. When sent out against storage areas, the A-4Es were normally loaded with two 500-pounders and four CBU-24s (cluster bomb units that dispense bomblets over a large area).

This month, A-6A aircrews of VMA(AW)-225 continued their role of striking NVA trucks which shuttle supplies during the night. A total of 212 strike/armed reconnaissance sorties--averaging approximately seven per night--were flown by the Intruders, loaded with a combination of 12 to 22 500-pounders and four to eight Rockeye IIs. One A-6A crew, shortly after midnight on the 5th, located a convoy of trucks on Route 912 just south of the Ban Karai pass, utilizing the automatic moving target indicator of the Intruder's radar system. On the initial run, the crew dropped 12 bombs and two Rockeye IIs, as NVA gunners filled the air with 23/37mm AAA fire. Despite the NVA defenses, the aircraft completed the run unharmed, and the crew observed 11 secondary explosions, one fire, and at least six trucks destroyed.

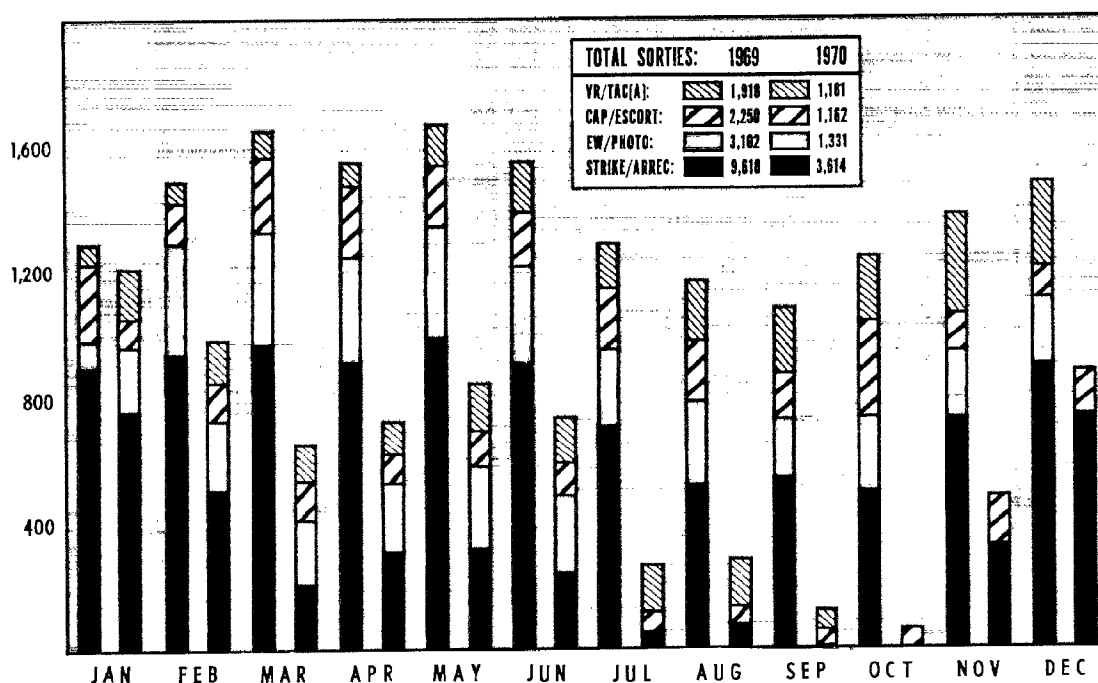
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VMFA-115 flew the other out-of-country missions during the month. These flights included 168 strike sorties over Laos, 84 combat air patrols for B-52s hitting supply routes in Laos, and 42 barrier combat air patrols (BARCAP) over the Gulf of Tonkin. BARCAP sorties flown during mid-December were refueled by 12 Marine KC-130F tanker missions, necessary to extend time on station.

MARINE OUT-OF-COUNTRY AIR OPERATIONS: 1969 AND 1970



As can be seen in the preceding graph, during 1970, there was a 57 percent reduction in sorties flown by 1st Marine Aircraft Wing over Laos. Only the combat air patrol/escort function was flown every month during the year; however, strike/armed reconnaissance missions of 1st Wing were required most often, as indicated by 3,614 such sorties flown. Although preplanned strike flights were discontinued for September and October as a result of a combination of factors, requirement for

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Marine all-weather A-6As and other jets brought about resumption of the interdiction mission in November. The resumption responded to the NVA's dry season push to move logistic materiel through to RVN and, this year, Cambodia. MACV/ARVN cross-border operations into communist sanctuaries in Cambodia during May and June seriously depleted enemy stockpiles, which in turn also caused a drawdown on RVN caches. With resupply routes through southern Cambodia cut off, the NVA expanded use of LOCs (lines of communication) and the transportation system in the southern Laotian panhandle. This expected escalation was confirmed in late October as the monsoon ended, and Marine aviation was once again utilized against NVN input corridors and associated road networks.

Aerial reconnaissance--which included multi-sensor imagery, electronic warfare (EW) and communication countermeasures, and visual reconnaissance--of the LOCs through Laos by Marine Composite Reconnaissance Squadron (VMCJ)-1 was terminated during the year, as Marine RF-4Bs and the electronically sophisticated EA-6As were redeployed following stand down on 1 July. Prior to cessation, these aircraft had flown 1,331 sorties in support of Free World air operations over Laos, Gulf of Tonkin, and North Vietnam.

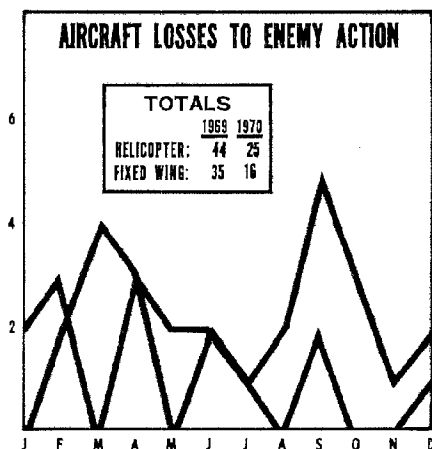
On 14 September, another unique, out-of-country function terminated; TA-4F aircrews discontinued visual reconnaissance/tactical air coordinator (airborne) flights. On a reduced scale, the same mission was continued in-country through December. The 1st Wing had pooled all TA-4Fs at Headquarters and Maintenance Squadron-11 to accrue the benefits of centralized maintenance and supply support. After redeployment of Marine Wing Support Group-17 and MAG-12, some TA-4Fs reverted to their control, reducing in-country assets. During 1970, the TA-4F crews logged 1,181 VR/TAC(A) sorties over Laos.

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Aircraft Losses

Three 1st Wing aircraft were destroyed as the result of direct enemy action during December. MAG-16 lost an AH-1G and a CH-46D, bringing to 25 the total of rotary wing aircraft lost in 1970. Nineteen other helicopters damaged during the year were repaired and returned to operation.



MAG-11 also had a loss in December, as an F-4B's flight controls froze shortly after departing the target on a Laos interdiction mission, bringing 1st Wing's 1970 fixed wing losses to 16. However, ten fighter/attack aircraft sustaining minor or substantial damage from enemy

antiaircraft artillery fire during the year landed safely and were repaired.

Expeditionary Aircraft Arresting Gear

During the 1950s, Marine Corps efforts to develop a satisfactory expeditionary airfield resulted in the Short Airfield for Tactical Support (SATS), comprised essentially of an aluminum mat airstrip, catapult, and arresting gear--all capable of rapid installation. Its first combat application was at Chu Lai in 1965. Continuing in use long after Chu Lai was expanded to a permanent airfield, the SATS arresting gear (M-2 and later M-21) has proven valuable in averting aircraft damage or destruction in the course of landing operations--in 1970 alone, some 250 planes with malfunctions or critical emergencies were arrested.

Initially, the M-2 arresting gear, an integral part of the SATS system, was installed at Chu Lai in 1965. By the end of 1966, it was replaced by

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the M-21 equipment which is superior, lightweight, high capacity, and portable. During this year, Marines installed six sets of M-21 equipment on the runways at Danang (two) and Chu Lai (four). In 1967, two others were placed on the crosswind runway at Chu Lai, and another on Phu Bai's 5,500-foot runway to provide an additional emergency field for jet aircraft. Also, two sets of E-28 (non-expeditionary arresting gear) equipment were installed at Chu Lai during 1967, giving the field a capability to stop an aircraft safely if it had to abort take-off.

Since May 1965, the several types of arresting gear operated by Marine air base squadrons with MAG-11, 12, and 13 have been used 60,741 times to save aircraft with problems on take-off or landing. However, most of the 8,333 aircraft arrestments in 1970 were performed as an extra safety precaution when runways were wet and slippery. Other typical cases during the year resulted from conditions such as blown tires, brake failures, and control problems. In one instance, a TA-4F from H&MS-11 was hit by enemy fire over Laos which caused a loss of fuel. The plane, unable to reach Danang safely, was arrested on the shorter field at Phu Bai.

Air Support Radar Teams

The air support radar team (ASRT) is an integral part of 1st Wing's capability to deliver ordnance on enemy targets under all weather conditions. During the first eight months of 1970, Marine Air Support Squadron-3 had five ASRTs deployed--the northernmost at Quang Tri and the farthest south at Chu Lai. In order to complete coverage of MR 1, the remaining teams operated from FSB Birmingham (eight miles west of Phu Bai airfield), Danang, and An Hoa. Utilizing the AN/TPQ-10 radar, each team could control a transponder beacon-equipped aircraft out to a range of 50 miles. This radar-controlled bombing system was used primarily during periods of darkness or otherwise restricted visibility, particularly during

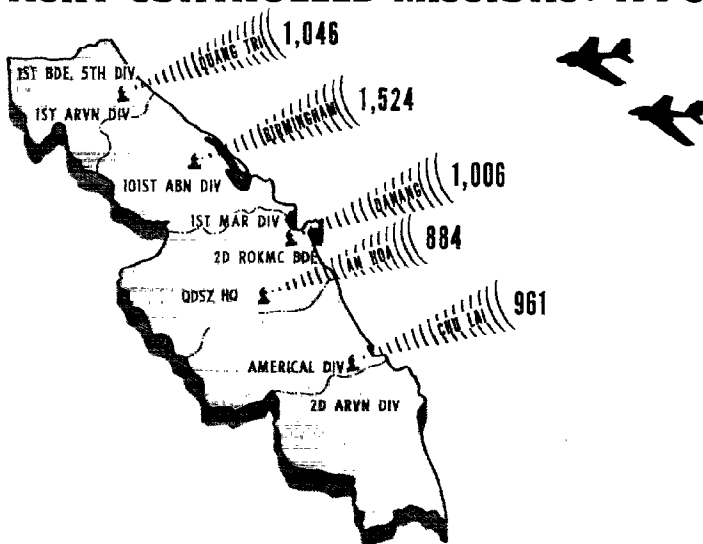
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monsoon seasons. Although developed to control ordnance-delivering aircraft, ASRTs also guided supply helicopters to friendly ground units when rain, clouds, or fog obscured hazardous mountain landing zones. This technique, fully exploited in February and March 1969 to support Operation DEWEY CANYON in the Da Krong Valley, became standard procedure during 1970 monsoon weather.

As a part of the phasedown of forces, two ASRT sites were closed during August and September 1970--first An Hoa, then Chu Lai. The sites at Da-nang, Quang Tri, and FSB Birmingham continued to operate and provide support for Free World forces between Quang Nam and the DMZ. By year end, a total of 5,421 missions, many involving more than one aircraft, had been controlled. The number of missions per ASRT site and the forces each site primarily supported are shown below.

ASRT CONTROLLED MISSIONS: 1970



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UNCLASSIFIEDTranspacific Deployments

Exercising the capability of Marine fighter and attack aircraft to be flight ferried long distances with the aid of in-flight refueling from KC-130F tankers, 1st Marine Aircraft Wing transferred assigned planes of five squadrons to bases in the United States during 1970. The US-bound transfers (code named KEY WALLOP and KEY GRASP) took place in February and September, moving 65 aircraft to Marine Corps air stations in Hawaii and California. In addition, two other squadrons, VMCJ-1 and VMA-211, flew their aircraft to Iwakuni, Japan, via the Republic of the Philippines and Okinawa.

KEY WALLOP commenced from Naval Air Station, Cubi Point, Republic of the Philippines on 1 February with VMA-223 (Phase I, 20 A-4Es), followed in trace by VMFA-542 (Phase II, 15 F-4Bs) on 3 February. VMA-223 completed the movement on the 9th, and the final F-4B landed as scheduled on 11 February.

With all aircraft in place by 13 September at Okinawa (used instead of Cubi Point because of Typhoon Georgia), KEY GRASP commenced on the 14th with VMA(AW)-242 (Phase I, four A-6As), VMFA-122 (Phase II, nine F-4Bs), and VMFA-314 (Phase III, 17 F-4Bs). Unlike KEY WALLOP, squadrons participating in this move stopped at Midway Island for refueling and required in-flight refueling only between Hawaii and California. KEY GRASP II ended on the 18th when the last two F-4Bs of VMFA-122 arrived in Hawaii, and KEY GRASP I and III finished on 19 and 22 September, respectively, when VMA(AW)-242 and VMFA-314 completed the last leg of the journey to El Toro.

Distribution of Aircraft

There has been no major shift in 1st Wing aircraft population since MAG-13 departed Chu Lai in October. The distribution of fixed wing aircraft in MAG-11 and helicopters in MAG-16 are detailed in the chart on the following page.

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STATUS OF 1ST WING AIRCRAFT: 31 DECEMBER 1970

Unit	Aircraft Model	Total Assigned	PAR	Damage Repair	Other	Total In-Country
MAG-11						
H&MS-11	C-117D	3	0	1	0	2
	TA-4F	6	1	0	0	5
VMA-311	A-4E	26	1	1	0	24
VMFA-115	F-4B	24	5	4	2	13
VMA(AW)-225	A-6A	13	0	0	0	13
VMO-2	OV-10A	19	0	1	0	18
TOTAL FIXED WING		91	7	7	2	75
MAG-16						
H&MS-16	CH-46D	0	0	0	0	0
HML-167	UH-1E	35	6	3	0	26
HML-367	AH-1G	23	0	3	0	20
HMM-262	CH-46D	27	6	0	0	21
HMM-263	CH-46D	24	5	1	0	18
HMM-364	CH-46D	24	3	2	0	19
HMH-463	CH-53D	20	0	2	0	18
TOTAL HELICOPTERS		153	20	11	0	122

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LOGISTICS

While logistic expertise has been essential to US military success in RVN throughout the war, 1970 brought increasing logistic emphasis in the face of redeployment. In addition to continued provision of combat support and supply, medical, transportation, and service support to remaining Division and Wing elements, III MAF logisticians were deeply involved with retrograde of personnel and equipment, redistribution of excess materiel, and transfer of functions and facilities to other Free World forces. To permit reemergence of an uncommitted force in readiness within Pacific Command, Marine ground, air, logistic, and headquarters elements redeployed in relative proportion, allowing reconstitution of a balanced expeditionary capability. At the same time, Marine logistic focus was concentrated on ensuring availability of materiel for future contingencies. Not all logistic endeavor was combat oriented; a great deal has directly or indirectly provided lasting benefit to the Republic of Vietnam. In fact, the war has frequently been termed "the engineer's war," and the growing network of all-weather roads linking communities, commercial endeavors, and governmental agencies would seem to support that view. In any event, Force Logistic Command and organic combat support elements of the Wing and Division have been thoroughly committed to packing, moving, and building during 1970, as well as routine logistic functions.

Force Logistic Command

Force Logistic Command (FLC), in being since 15 March 1966 as a task organized entity to provide sustained logistic support to III MAF units, has continually improved and modified its organization to meet existing and anticipated requirements. 1970 was no different, as FLC constricted its supportive mechanism concurrent with ongoing redeployment. However, redeployment-associated activities placed additional burdens on FLC. Despite major involvement with staging, marshalling, and embarking redeploying

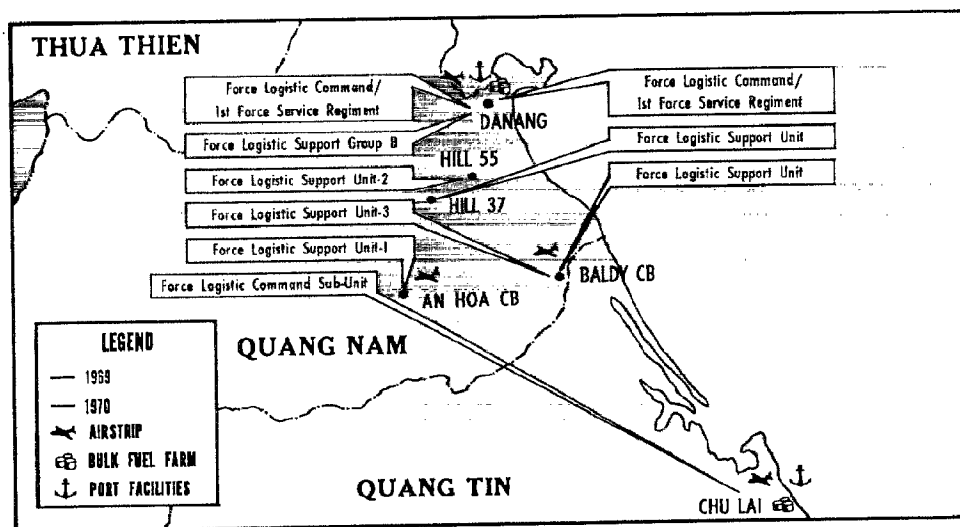
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forces (interspersed with short-notice surges of high activity to load retrograde cargo on opportune amphibious shipping), III MAF logisticians continued the orderly flow of supply, maintenance, and transportation support to Marines in the field. A new and important involvement--redistribution of redeployment-generated excesses--came into being in 1970.

III MAF LOGISTIC FACILITIES: END-1969 VS END-1970



At the beginning of the year, FLC organization for combat service support was as shown on the map above. Following translocation of 3d Marine Division in late 1969, Force Logistic Group (FLSG) Bravo in northern MR 1 was deactivated, and FLSG Alfa, then supporting the 1st Marine Division, was redesignated FLSG Bravo. During KEYSTONE BLUEJAY, redeployment of Regimental Landing Team (RLT)-26 and the attendant shift northward of 1st Marines obviated any further requirement for Force Logistic Support Unit (FLSU)-2 (deactivated) at the Hill 55 cantonment which was subsequently turned over to the 51st ARVN Regiment.

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In September, KEYSTONE ROBIN ALFA brought about the disestablishment of FLSG Bravo and redeployment of its nucleus, 1st Service Battalion, to Camp Pendleton, California. After FLSG Bravo stood down on 1 September, Supply Battalion, 1st Force Service Regiment (FSR) assumed the task of operating the remaining two outlying logistic support units. Departure of Marine elements from Chu Lai permitted closure of the collocated FLSU, and shifting 5th Marines to northern Nui Loc Son basin and the Que Son mountains allowed disestablishment of FLSU-1 at An Hoa. Soon thereafter, a small installation was opened at Hill 37 near Dai Loc to support 1st Battalion, 1st Marines in its expanded tactical area of responsibility.

Thus at the end of the year, FLC had shrunk to a force service regiment (augmented by a military police battalion and a company of force engineers), a logistic support unit for a regiment at Baldy combat base, and a smaller FLSU for a battalion at Hill 37. FLC personnel strength diminished from 5,689 at the beginning of the year to 3,888 on 31 December. Nonetheless, Marine forces continued to enjoy the best logistic support in their history.

KEYSTONE Redeployments

Redeployment planning, execution, and associated activity--redistribution, retrograde cargo shipment, mount-out reconstitution, and transfer of facilities to mention a few--influenced virtually every other logistic consideration during the year. These evolutions, termed KEYSTONE, were conducted not only with an eye for reducing in-country strength while retaining tactical preparedness but also for continuing essential USMC support for other service requirements, such as close and deep air support, tactical data interface, and naval gunfire liaison/

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control. Paramount throughout was the requirement to retrograde well equipped and organizationally balanced Marine units for early reconstitution of expeditionary preparedness within the Pacific Fleet. Three separate increments, KEYSTONE BLUEJAY, ROBIN ALFA, and ROBIN BRAVO were executed during the year, bringing the total since the program's inception in 1969 to five; however, III MAF participated only in BLUEJAY and ROBIN ALFA.

Following closely the departure of final elements of 3d Marine Division in late 1969, RLT-26 and associated aviation, combat support, and service support elements (including the last in-country 5th Marine Division units) stood down and redeployed as part of KEYSTONE BLUEJAY, commencing 1 February and terminating 15 April. Ground combat units were among the last to go, providing a maximum capability for anticipated enemy Tet activity--which never fully materialized.

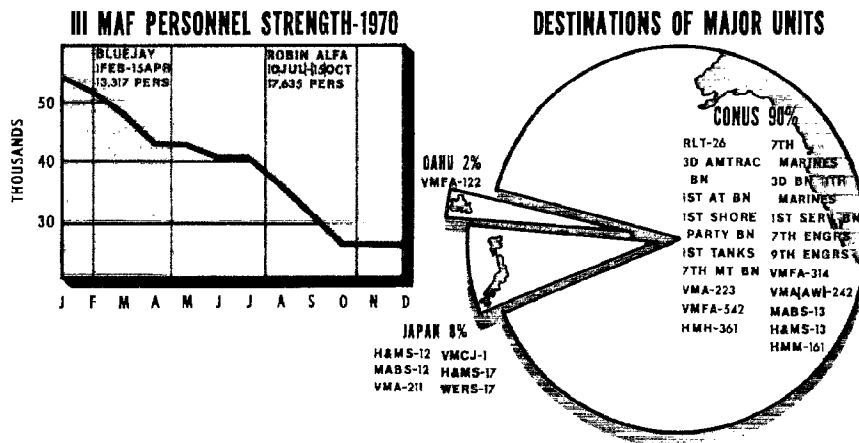
Commencing on 10 July, KEYSTONE ROBIN ALFA shifted some 17,000 III MAF personnel to locations in the United States, Okinawa, and Japan. The major ground combat unit, the 7th Marine Regiment, returned to Camp Pendleton with other support elements to join 5th Marine Amphibious Brigade. Marine Aircraft Group-13 relocated at El Toro, California, and other Wing assets were distributed among WestPac, MidPac, and EastPac commands. The last embarkation unit steamed for Long Beach on 13 October, completing USMC participation in ROBIN ALFA. The following illustration depicts destinations of major units in both KEYSTONE operations as well as in-country strength trends for the year. In all, 30,952 Marines and attached US Navy personnel, 709,886 square feet of vehicles (a measurement of occupied deck space), and 57,031 tons of cargo were retrograded during 1970.

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KEYSTONE BLUEJAY AND KEYSTONE ROBIN ALFA REDEPLOYMENTS-1970



NOTE: PERCENTAGES SHOW PROPORTIONATE
DISTRIBUTION OF PERSONNEL

Excepting the majority of personnel (air-lifted), US Pacific Fleet amphibious shipping (already on the scene for operational requirements) was employed to the maximum practicable extent for redeployment. As a result, considerable saving of commercial transportation costs--estimated at 7.5 million dollars during 1970 alone--was realized.

Concurrent with the continuing business of redeployment, square footage of amphibious shipping not filled by embarking units was closely monitored. Once confirmed, extra space was quickly filled with retrograde cargo--such as vehicles or equipment destined for out-of-country maintenance--without delaying sailing schedules. Occasionally, amphibious ships conduct inter- and intratheater transits without embarked units or full cargo spaces, such as LSTs transiting from Vietnam to Japan for upkeep or

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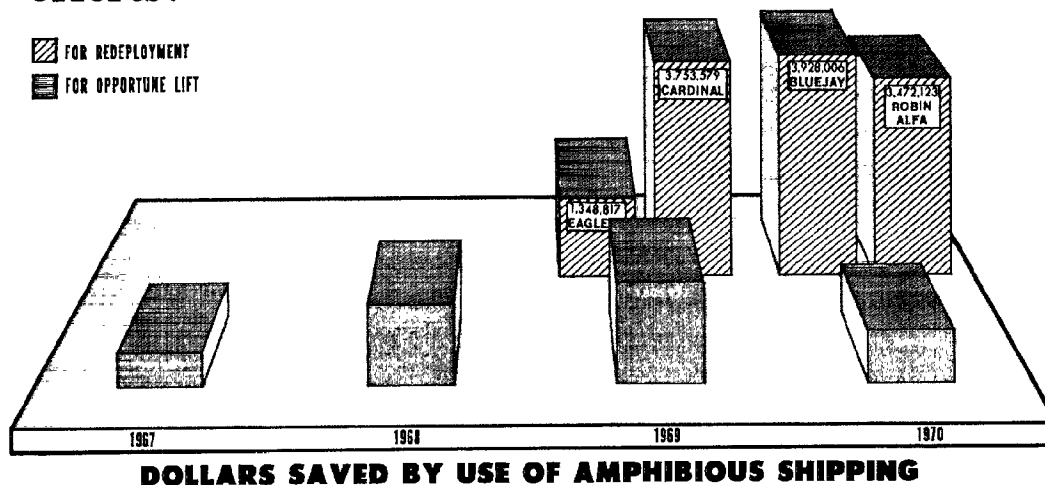
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amphibious squadrons steaming between WestPac and CONUS via Hawaii. To insure maximum utilization of this opportune shipping, Pacific Fleet amphibious assault ship schedules are closely followed, and notification of availability is rapidly promulgated to FLC. Additionally, requests for opportune lift are forwarded to the Fleet, and where possible, shipping schedules are modified accordingly.

At Danang harbor, all was kept in readiness for immediate reaction to notification of space availability--sometimes received only 24 hours prior to sailing. FLC units quickly marshalled personnel and equipment, usually diverting them from other less time-sensitive tasks, to load ships around the clock if necessary. On occasion, there have been as many as four ships loaded in one day.

These efforts have paid dividends. Throughout the year, almost 30,000 measurement tons of vehicles, aircraft, and bulk cargo have been retrograded using available space on opportune amphibious ships bound for Okinawa, Japan, and the United States. This yielded an additional transportation saving of approximately \$834,000. A review of commercial transportation costs saved by use of amphibious shipping for redeployment and employment of available space as it occurs for retrograde cargo is shown below. The decline in 1970 opportune lift employment is partly due to increasing in-country redistribution efforts.



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Redistribution and Transfer of Materiel

Redeployment of US forces from RVN has eased the pressure on the supply system built up over five years, releasing large quantities of operating stocks and residual pipeline assets. In addition to excesses caused by downward adjustment of required stock levels and maintenance backups, some result from units deactivating in-country or divesting of special RVN allowances or obsolescent items.

To avoid unnecessary shipping costs, a sophisticated screening and redistribution effort has been devised to meet in-country requirements with local excess assets. All services actively participate, and US governmental agencies and other Free World forces derive benefits as well. While holding down costs has been a driving factor, upholding the highest possible levels of combat readiness of Marine units in RVN and the remainder of Pacific Command (PACOM) also was considered. With these objectives in mind, III MAF set about the massive task of screening, redistributing, and retrograding materiel excess to USMC requirements in RVN--a chore greatly facilitated by the automatic data processing capability of FLC.

Force Logistic Command's operating stock excesses were the largest block requiring redistribution/retrograde and were applied to a variety of screening programs. Priorities have been established to fill mount-out/mount-out augmentation (MO/MOA) requirements, deficiencies in Fleet Marine Force WestPac and EastPac operating stocks, needs identified in a Pacific Command program, and in-country inter-service wants before USMC requirements elsewhere. Additionally, excesses in materiel necessary for a unit's mission and specified in its table of equipment (T/E items) were redistributed separately. These priorities are illustrated on the following page.

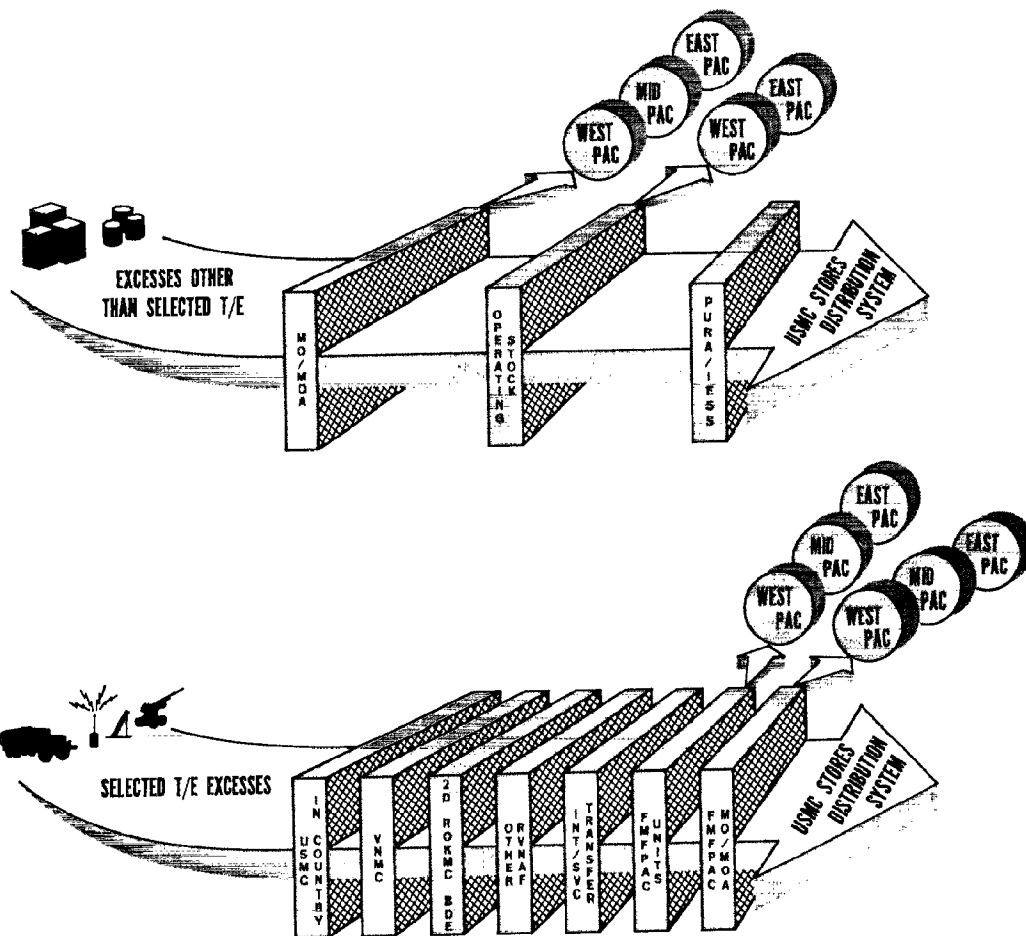
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III MAF EXCESS REDISTRIBUTION SCREEN: 1970

-Mount-out/Mount-out Augmentation

To meet short-fuzed expeditionary requirements, Fleet Marine units carry sufficient supplies to operate for 60 days; these supplies are divided into two blocks: mount-out (first 30 days) and mount-out augmentation. As intended, USMC forces arriving in the initial stages of the war consumed these stocks, while III

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MAF built up the in-country support capability for continued operations ashore. As these organizations redeploy and resume an expeditionary readiness posture, MO/MOA stocks must be reestablished. Inasmuch as all Pacific Fleet Marine ground forces (save one regimental landing team) and the majority of air elements were at one time committed to the war, requirements for MO/MOA reconstitution are extensive. The initial effort began with the start of KEYSTONE EAGLE in July 1969; as units redeployed, shortages were filled from excess stocks on hand or due in at 3d FSR. In March of this year, 3d FSR was also tasked with reporting the WestPac MO/MOA position each month to ensure that management information would keep pace with the tempo of redeployment operations. As excess assets at FLC and 3d FSR are identified, they are applied to MO/MOA deficiencies pointed up in the monthly report. Additionally, Pacific Command excesses are screened for items needed for MO/MOA. Initially established to meet USMC WestPac deficiencies, the reconstitution program was extended to MidPac and EastPac, as units began to redeploy to those locales; priorities for redistribution descend from west to east, to cut transportation costs where possible and to improve westernmost unit readiness first. Thus far, MO/MOA requirements have focused principally on general equipment and supplies as well as repair parts and components. At the end of the year, FMF units in WestPac had more than 3.5 million dollars worth of MO/MOA stocks on hand, mostly the fruits of redistribution.

-WestPac and EastPac Operating Stocks

Following MO/MOA screen, uncommitted excesses are applied to reported operating stock (day-to-day supplies as opposed to MO/MOA materiel) deficiencies, first in WestPac (reported by 3d FSR) and subsequently EastPac (monitored by 5th FSR). Operating stock requirements are matched against excesses on a recurring basis, depending on anticipated future needs.

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-PACOM Utilization and Redistribution Agency

The PACOM Utilization and Redistribution Agency (PURA) was established by the Department of Defense to maximize local consumption of excess materiel within Pacific Command, in an effort to save transportation costs and time otherwise spent in shipping new items from CONUS. Participants include the armed services, military aid programs, Agency for International Development, General Services Administration, and other federal agencies. Following MO/MOA and operating stock screens, all FLC excesses--excluding some categories such as bulk petroleum, single service items, and items under special control--are reported to PURA, wherein they are screened by program subscribers and, if desired, requisitioned. On 1 October, streamlined procedures were instituted to reduce maximum screening time to 75 days. Additionally, participating activities route stock replenishment requisitions through PURA, where they are filled or passed to the normal supply source. These measures have expedited redistribution or retrograde, as appropriate, thus reducing buildup of FLC stocks awaiting disposition. Following PURA screenings, remaining excesses are applied to other Marine Corps-wide needs. During the year, III MAF materiel valued at over 2.7 million dollars out of 43 million dollars worth offered was redistributed to participating PACOM activities.

However, not all services operating in RVN had the automatic data processing wherewithal to participate directly in PURA. To fill this gap, MACV instituted an adjunctive program called the Interservice Excess Screening System (IESS) which permitted in-country components to requisition against one another's stock excesses. The screening period was 15 days. Toward end-year, all services were participating in PURA, and IESS fell into disuse; however, III MAF transferred some \$500,000 worth of excesses to other services through IESS and acquired materiel valued at \$2,000,000--all needed to fill operating stock, MO/MOA, and other shortages.

-Redistribution of T/E Materiel

These, then, were the processes by which most commodities, save selected T/E equipment, were re-

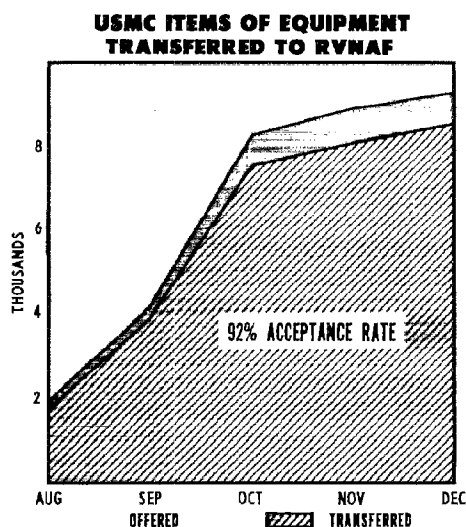
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distributed. III MAF Headquarters served as the focal point of T/E equipment redistribution and established a small staff to manage the program. Items of this sort become excess upon turn-in of special allowance T/E equipment by redeploying units or of all stocks by deactivating organizations. Also, reductions in III MAF strength bring parallel cuts in authorized stock levels, releasing quantities of on-hand items. These overages are applied, in the priority listed, to requirements of non-redeploying USMC units, the Vietnamese Marine Corps, 2d ROKMC Brigade, other RVNAF (Headquarters, Marine Corps approved items only), FMFPac units, and FMFPac MO/MOA deficiencies. In the latter two categories, priorities descend WestPac to EastPac.

To expand on the RVNAF category, III MAF has been an active participant in Project 805--a program which matches RVNAF T/E materiel shortfalls with US component equipment--since its inception on 1 August. A unique feature of this program is the offer of organic equipment of redeploying units, whereas other redistribution programs dealt exclusively with excess materiel. USMC items needed by the RVNAF and eligible for transfer--determined by serviceability and condition--are offered to MACV by III MAF for approval at service level. Generally, communication equipment, small arms, and crew served weapons are in highest demand. Following MACV

approval for transfer (with Headquarters, Marine Corps and Department of the Army concurrence), acceptance inspections are scheduled by III MAF and turnover schedules are published. The ARVN 1st Area Logistic Command conducts the acceptance inspection and receipts for equipment which is invoiced to them directly by the holding unit. The acceptance rate for III MAF materiel has been consistently high, reflecting the command interest and excellent condition of items offered. Throughout the year, 8,576 items valued at approxi-



mately 2.5 million dollars were transferred by III MAF to the RVNAF.

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On 30 December, MACV implemented a follow-on program--termed Interservice Transfer of SEA Principal Items of Equipment--which is modeled after Project 805. Essentially, this program requires III MAF to offer all T/E items of redeploying units to other US forces in-country as well as to the RVNAF. While no transactions had transpired by the end of the year, III MAF was preparing to participate with the same enthusiasm and command interest displayed throughout Project 805.

Transfer of Facilities and Real Estate

Cutbacks of in-country III MAF strength freed real estate and facilities for transfer to other US components or GVN agencies. Some of these were extensive installations--Quang Tri combat base, MAG-36 facilities at Phu Bai, Chu Lai Air Base, An Hoa combat base, and Camp Horn, to mention but a few. Until this year, such transactions were administered by the US Navy Civil Engineering/Real Property Office, tasked with maintaining real property records, inventories, and site drawings for US Navy and Marine Corps units.

On the first of September, III MAF assumed responsibility from the Navy for preparation and translation of all legal agreements associated with transfer of real estate to the RVNAF. One month later, III MAF took over the functions of the Civil Engineering/Real Property Office and opened its own Real Estate/Base Development Office at Camp Haskins. In addition to maintaining III MAF records, the Real Estate/Base Development Office submits the necessary reports to MACV, plans for timely disposal of excess real property, and drafts legal documentation for transfer.

Within ten days following notification of specific unit redeployments, 1st Wing, 1st Division, and FLC report prospective real property excesses to III MAF. The III MAF Real Estate Office then begins the transfer sequence by offering the facilities to other component commanders and the ARVN. Observation posts and forward combat outposts fall within III MAF authority for disposal and are therefore excluded from these procedures. Should the facility in question be excess to all Free World or GVN requirements (such as An Hoa combat base), it is dismantled to free ARVN

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maneuver units from the burden of providing security.

-Combat Information Bureau/Press Center

Another III MAF facility transferred--to XXIV Corps on 9 March--was developed especially to meet the burgeoning news media requirements in northern RVN during the first months of the war. Built around the facilities of a former French hotel and opened in May 1965, this installation provided a central agency for briefing, feeding, and billeting media representatives. Additionally, Combat Information Bureau (CIB) personnel provided assistance in handling transportation and escort problems as well as arranging for visits to and interviews with various units and personnel throughout MR 1 (then I CTZ). The principal CIB mission was to get the newsmen to the story or the story to him, and in five years, CIB members undertook some 20,000 escort missions to accomplish that task. On any given day, an average of 40 newsmen were hosted at the Press Center, where communication facilities had been installed to insure uninterrupted flow of information, which III MAF released directly to the media. Throughout the war, the density of reporters and photographers rose and fell with the tempo of combat activity in the five northern provinces. In 1967 alone, over 150 third-country newsmen representing more than 50 Free World countries used the Press Center. Following transfer of this installation to XXIV Corps, III MAF representation was reduced to one Marine for liaison purposes.

Maintenance

Redeployment, retrograde, and redistribution permitted scaling down of the maintenance effort supporting III MAF. At the end of the year, Force Logistic Command was providing field maintenance (performed by technicians on site or in established workshops and normally limited to replacement of unserviceable parts or components), while depot maintenance (repair of materiel requiring major overhaul or complete rebuild of parts or end items) was performed in CONUS. Third Force Service Regiment on Okinawa provided backup field maintenance for commodities irreparable at FLC within 90 days.

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This was a major departure from 3d FSR's role prior to 30 June, when it was tasked with depot maintenance and overflow field maintenance in support of III MAF as part of the FMFPac Rebuild Program, a war-time project to slash turnaround time incurred by CONUS repair of combat-essential items. In addition to its own facilities, 3d FSR expanded its capability through support agreements which garnered, among others, the resources of Yokosuka Public Works Center, augmented by subcontracts with local civilian contractors. FLC, 3d FSR, and the CONUS-based Replacement and Evacuation Program intermeshed to achieve a balance of maintenance effort throughout the system, whereby items were retrograded when parts were unavailable or repairs could not be accomplished within a specified period--generally 30 days at FLC and 90 at 3d FSR.

Having served its purpose, the Rebuild Program was terminated on 30 June, although work continues on items inducted into the program prior to that date. Of the 730 items scheduled for rebuild during the year, 687 have been completed, and the remaining 43 items are expected to be completed by the end of the fiscal year. At the end of December, the only active depot maintenance program in WestPac provided for rehabilitation of certain aviation ground support items known as Section M equipment.

Despite these readjustments, the day-to-day maintenance requirements of III MAF units were quickly met, and combat essential ground equipment deadline (down for maintenance) rates of all major USMC commands in RVN improved during the year. These accomplishments take additional luster when considered in light of intervening events, such as increasing security duties for personnel remaining after redeployments and short-notice demands for working parties to load opportune amphibious ships. Items deemed not operationally ready due to supply (NORS) remained fairly consistent during the year, which is noteworthy considering the length of the supply pipeline and redeployment-associated flow modifications. The following charts show monthly deadline rates of combat essential equipment, as well as a composite recapitulation reflecting materiel not available due to NORS, NORM (not operationally ready due to maintenance), or in transit during 1970.

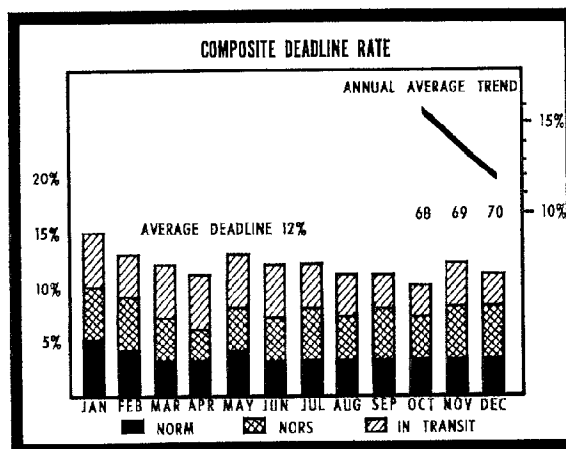
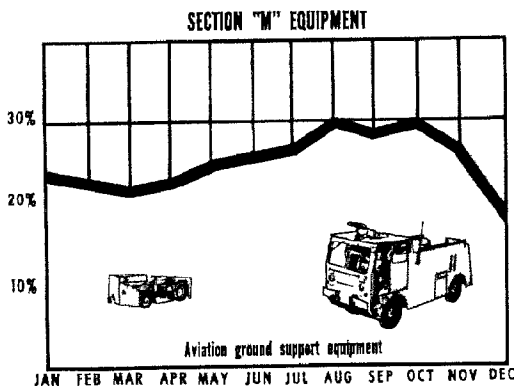
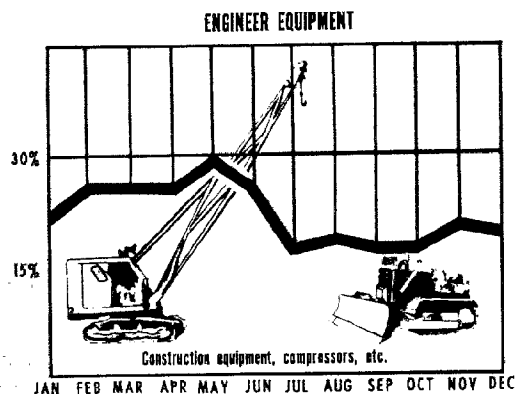
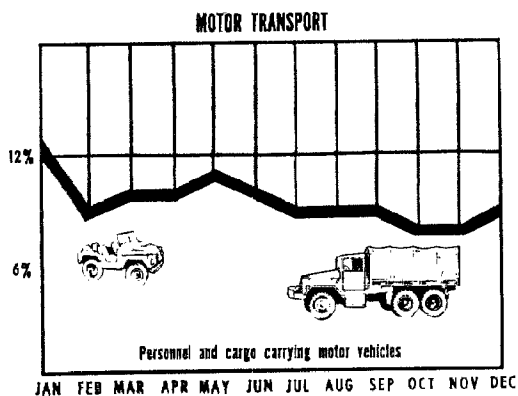
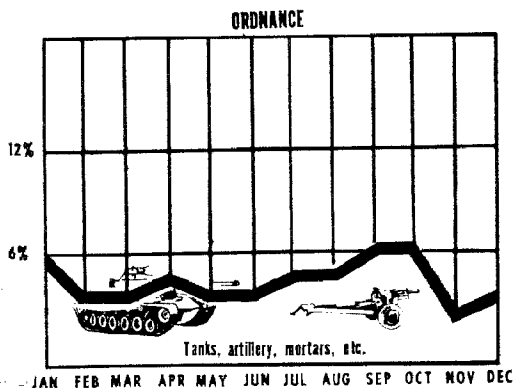
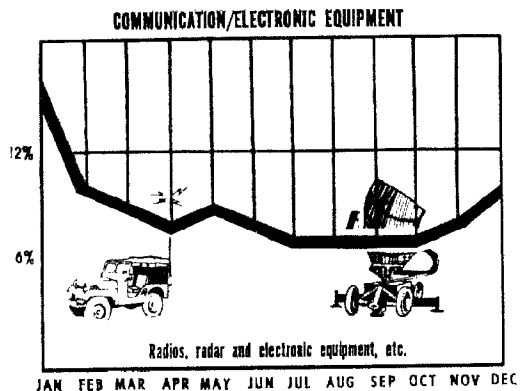
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MATERIEL DEADLINE : 1970

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COMBAT ESSENTIAL EQUIPMENT



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Engineer Operations

In keeping with the tenor of activity throughout III MAF in 1970, Marine engineers were incrementally redeploying, preparing for future redeployments, and at the same time providing close combat support to infantry units as well as combat service support throughout Quang Nam. At the beginning of the year, engineer assets numbered two force engineer battalions (the 7th and 9th--possessing capabilities beyond the pioneer and close combat support missions of a division engineer battalion), 1st Bridge Company, and 1st Engineer Battalion (organic to 1st Marine Division). Additionally, III MAF enjoyed construction support from US Navy construction battalions. First Shore Party Battalion provided extensive close combat and light engineer support to 1st Division units before redeploying in BLUEJAY, minus Company C which was attached to 1st Engineer Battalion to continue their helicopter support team mission. On 19 July, 7th and 9th Engineer Battalions and 1st Bridge Company stood down for August redeployment save Company A, 7th Engineer Battalion which remained to provide limited, deliberate engineer support. Thus at the end of the year, Marine engineer strength had constricted to 1st Engineers and Company A, 7th Engineers.

Within the realm of close combat support, by far the most important task has been mine and booby trap detection. The relatively high density of population and urbanization along the littoral of Quang Nam has always presented increased opportunity for covert emplacement of mines and booby traps. Not only are these devices targeted against Free World forces, but also they are intended as a terroristic deterrent to civilian traffic and commerce. Although the level of fighting has decreased, the communists have continued these tactics which permit them to conserve manpower while inflicting losses and advertising their presence. Whereas more than 20 percent of 1st Division casualties in 1969 were attributable to mines and booby traps, the percentage has more than doubled in 1970.

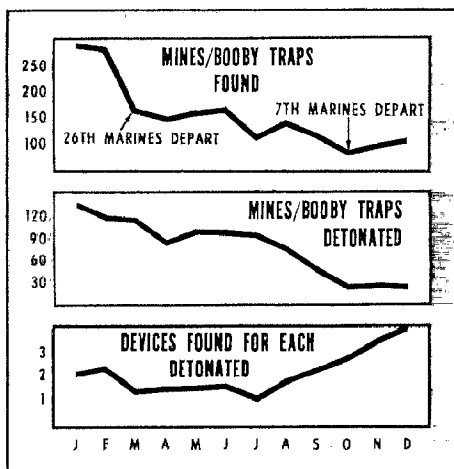
In addition to extensive daily road sweeps by all engineer elements (1,660 miles in December alone) and paving major lines of communication, the III MAF approach to the problem has been threefold. Besides

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employment of mine detecting dogs (useful for locating ordnance buried up to one foot deep, suspended five feet off the ground, or positioned up to three feet off the side of a trail or road), 1st Marine Division employs two methods to teach effective countermeasures to men in smaller units (squads, platoons, CUPP teams, CAPs) not having continuous engineer expertise. One, a five-day mine warfare school, trains non-engineer Marines and Vietnamese to detect and destroy in place surprise-firing devices. The other, a traveling engineer contact team conducts comprehensive mine and booby trap countermeasure instruction afield; on the average throughout the year, 64 Marines received this training each day. Both these agencies are provided by 1st Engineer Battalion. Responding, the Division rate for detection of mines opposed to those detonated and causing casualties has improved steadily, as shown in the accompanying graphs.



Deliberate engineering accomplishments in Quang Nam during the year have been impressive. During January, the FLC Retrograde Facility was completed. This complex--comprised of 10,300 square feet of maintenance area, 244,800 square feet of paved open storage, 4,200 square feet of covered storage, and ancillary administrative and support spaces--became the focal

point of III MAF redeployment, providing necessary facilities to prepare and stage equipment for embarkation. Extensive land clearing was completed on more than 10,000 acres on or adjacent to Barrier Island between March and May; also, Go Noi Island was prepared for an important resettlement project in June. Continuing road improvement vital for development of commerce and a viable province government, Route 4 was surfaced to Dai Loc, and Route 1 was upgraded from a point three miles north of Dien Ban to just short of Baldy combat base.

October was dominated by typhoons/tropical storms--Joan, Kate, and Louise--the cumulative results

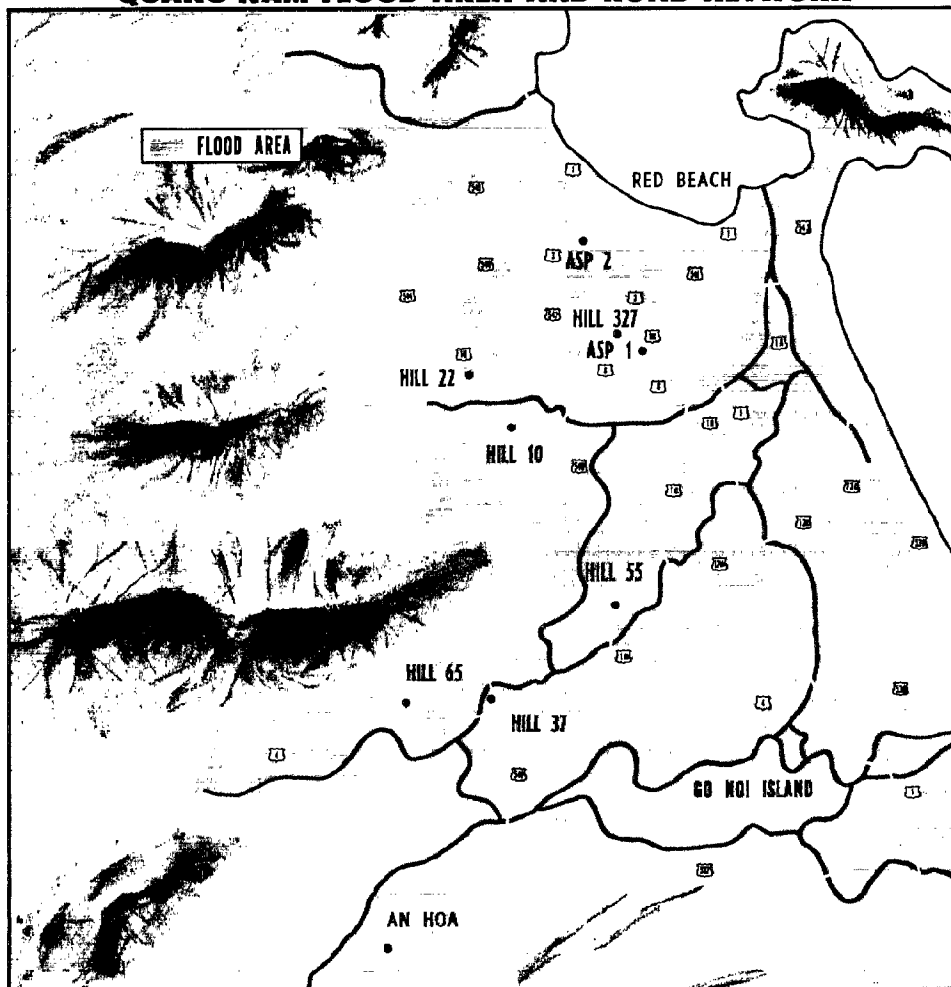
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of which inundated Quang Nam as shown on the following map and occupied much of the engineer endeavor for the rest of the year. Projects during this period involved the repair of roads, bridges, and cantonments damaged by wind and water. While damage to all-weather roads was minimal, London Bridge in the vicinity of Hill 37 was severely damaged. Inasmuch as the last Marine tactical bridge unit had redeployed in August, ARVN engineers installed a 60-ton raft to handle traffic on Route 540 until the Seabees complete repairs of the bridge.

QUANG NAM FLOOD AREA AND ROAD NETWORK



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-Tactical Support Functional Component Program

Initiated in early 1967, the Tactical Support Functional Component (TSFC) program was developed as a special category of prepositioned war reserve stocks consisting of advance base functional components (the naval hospital at Danang emerged from such an installation) and new items to provide fast response to unpredictable construction requirements. Components available ranged from SATS and helicopter airfields, 250-man cantonments, and water purification/distribution systems to culverts, timber bridge material, and a series of standard design, multipurpose, wood frame buildings, including the now familiar Southeast Asia hut. These components were held and stocked by an element of 32d Naval Construction Regiment (NCR) and were issued upon III MAF approval.

When the relocation of the 32d NCR was scheduled for 1 December, arrangements were made for III MAF to be provided with \$350,000 worth of materials for future vertical construction requirements. Accordingly, III MAF assumed control of the TSFC inventory from 32d NCR in November and, at the end of the year, was in the process of cataloguing and storing these items.

Medical Support

Throughout the year, requirements for medical support were generally proportionate to diminishing in-country III MAF strength, although the summer months witnessed the seasonal upsurge of malaria incidence. This slowdown permitted release of facilities established earlier in the war to augment expeditionary medical units. One of these--the hospital opened by Naval Support Activity (NSA), Danang adjacent to Marble Mountain Air Facility in January 1966--stood down from operations in May, two months after the hospital ship USS Repose (AH-16) departed RVN waters. The Repose, one of two hospital ships activated for RVN service, arrived off Chu Lai in February 1966 with the most modern medical facilities available for both emergency and definitive hospital care. By virtue of their mobility, hospital ships could be stationed close by sites of heaviest action, thereby cutting away valuable minutes otherwise lost enroute to emergency medical treatment. Almost a third of all III MAF medical

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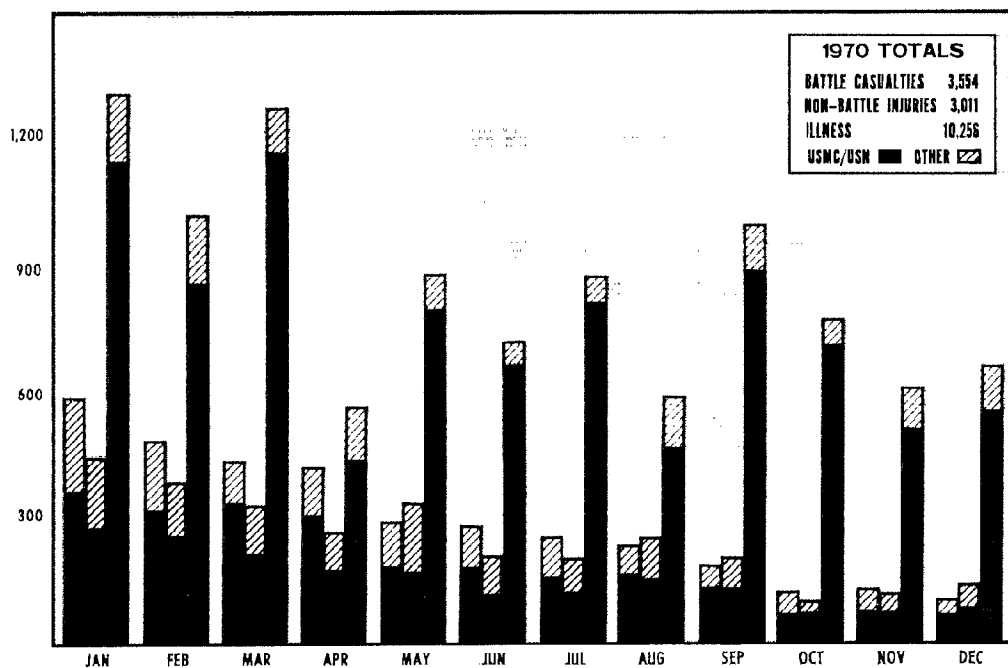
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admissions during 1970 were handled by these versatile and responsive Seventh Fleet ships. Following closure of NSA Hospital, the US Army 95th Evacuation Hospital provided medical support as required.

By June, III MAF medical facilities had constricted to the organic 1st Medical Battalion, 1st Hospital Company, and USS Sanctuary (AH-17). Similarly, III MAF dental support was cut back in September when 1st Dental Company redeployed, leaving 11th Dental Company to support Marine units remaining in MR 1.

Of the 16,821 admissions to III MAF medical facilities during the year, 21 percent were battle casualties, 18 percent were injuries resulting from non-combatative causes, and the remaining 61 percent were by reason of illness. Trends for the year are shown below.

ADMISSIONS TO III MAF MEDICAL FACILITIES: 1970



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Of the diseases encountered, malaria is the most significant, appearing in two strains in MR 1--vivax and falciparum. Considered the more serious, falciparum may result in brain, lung, or kidney complications; on the other hand, relapse (common to vivax) is infrequent. To date, the salient preventives have been chemoprophylaxis, deterrence of mosquito contact (repellent, clothing, netting), and vector control by spraying. While chemoprophylaxis is almost completely effective against vivax malaria, it is only partially so against falciparum, which accounted for two thirds of the total malaria infection among Marine ground units. Continued command awareness and enforcement of malaria protective measures, coupled with an active field malaria indoctrination program, have proven beneficial adjunctive counter-measures.

Referring to the previous graph, those admissions categorized as "Other"--US Army, ROK Marine, or Vietnamese--represent patients evacuated to III MAF facilities due to emergency, requirement for special treatment, or availability of beds. The process whereby a patient is matched against available medical resources to meet his specific needs is termed medical regulating. It begins when the patient first moves and ends with his arrival at the last medical facility providing for his care.

-III MAF Medical Regulating Office

The system for medical regulation in existence at the beginning of the year was developed in 1969, when the III MAF Surgeon collocated a regulating section with a similar Army element at the 95th Evacuation Hospital. While the functions of each section remained separate, cooperation was close and continuous. Emphasis was on timely and accurate matching of patient and facility to insure availability of requisite medical care and to prevent flooding one facility beyond capacity. Seldom used, but planned should circumstances require when a hospital ship was not on station, was the lateral transfer of patients to facilities south and north of Danang. Following XXIV Corps assumption of tactical responsibility throughout MR 1, the Navy-Marine medical regulating section discontinued operations on 10 April, and 67th Medical Group assumed responsibility of medical reg-

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ulation for III MAF facilities and patients.

Within the 1st Marine Division tactical area of responsibility, over two thirds of all casualties are moved by helicopter, markedly reducing the time lapse between injury and definitive care. Field ambulances are used primarily for transfer of patients in rear areas and routine admissions. These elements--rapid transportation and a central regulating office, coupled with a reliable communication network--are integrated to provide the fastest possible medical attention.

The process begins with the initial request for evacuation, which includes location, number of patients, and nature and severity of injuries (categorized as emergency, priority, or routine). The request is transmitted via the regimental tactical air control party to the 1st Marine Division Direct Air Support Center (DASC), which coordinates all rotary and fixed wing operations in support of the Division. DASC quickly evaluates the request by severity of injury of casualties and time received, then assigns the pick-up mission to either the Marble Mountain or Baldy combat base medical evacuation flight.

Following casualty pickup, the helicopter pilot contacts the medical regulator on the dedicated frequency (termed medevac common) and relays the number and category of patients, the type of wounds or illness, and the urgency. Within the medical regulating office, the regulator checks the status board reflecting current availability of operating rooms, patient backlogs, and specialists available within each medical facility, and directs the helicopter to the appropriate medical facility or facilities. Thereupon, he immediately notifies the designated medical installation of the impending arrival of casualties and nature of injuries. The status board is updated and the receiving facility keeps the regulator informed on current operating room and specialty information.

Motor Transport Operations

Throughout the year, III MAF motor transport units carried 566,646 short tons of cargo and 1,297,533

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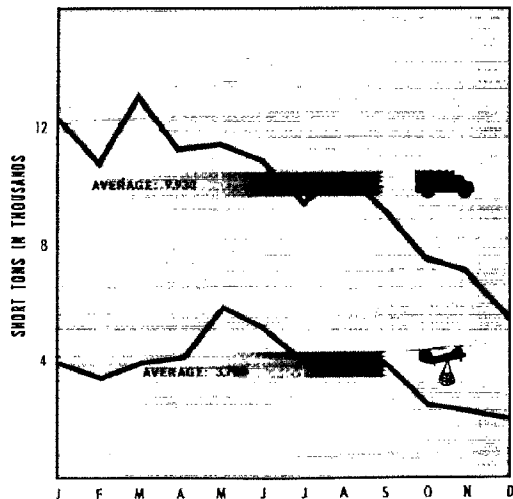
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passengers more than three million miles, reflecting more than 40 percent reduction in each category since last year and paralleling the decrease in average III MAF strength from 1969 to 1970. Seventh Motor Transport Battalion--located at Quang Tri until repositioning at Danang in December 1969--redeployed in February, leaving 1st and 11th Motor Transport Battalions and Truck Company, Force Logistic Command.

Despite widespread employment of helicopters for resupply and troop movement throughout the RVN conflict, trucks continue to provide extensive and economical transportation for cargo and men, particularly in relatively secure areas. Continuing upgrade and improved security of major lines of communication over the years have extended this capability across Quang Nam. Daily convoys motor to Hill 37, Hill 65, Hill 10, Baldy combat base, and Hoi An to deliver cargo; personnel are generally transported by helicopter. A comparison of helicopterborne and truck-delivered resupply to outlying III MAF ground units is shown below. Trucks carry the bulk of supplies to two forward logistic support units (Baldy and Hill 37) from whence helicopters resupply units in the field, a system both responsive and economical due to reduction of turnaround time.

**HELICOPTER AND TRUCK RESUPPLY TO
III MAF GROUND UNITS: 1970**



Two items employed to enhance convoy security are gun trucks and antifragmentation armor kits. Gun trucks (in use since mid-1968) are provided by Truck Company, FLC for convoy escort and are 5-ton multifuel trucks modified with a three-sided shell of half-inch steel plating set in the cargo bed. The bed floor is layered with sand bags covered by airstrip matting. The truck is equipped with a

.50 caliber machine gun; pyrotechnics and incendiary grenades; spare parts and tools for vehicle repair; first aid equipment; and radios for convoy control, supporting arms adjustment, and medical evacuation.

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The first shipment of antifragementation armor kits for 5-ton and 2 1/2-ton trucks arrived in-country during August; by the end of the year, 537 truck cab kits and 65 truck bed kits were on hand. One of the first two incidents attesting to their effectiveness occurred on 4 November, when a 2 1/2-ton truck in convoy detonated a box mine estimated at 30-40 pounds of TNT. The truck was blown in half, and while the four passengers suffered injuries from being thrown out of the truck, none received fragmentation wounds. Although the cab kit was warped, the bed kit suffered no damage and was installed on another vehicle. Twelve days later, two more 2 1/2-ton trucks detonated 30-40 pound mines. There was no damage to the armor kits, although the vehicles sustained heavy damage. The three injured counted a dislocated shoulder, a fractured vertebra, and the last, bruises and lacerations--again no fragmentation injuries. These remarkable performances have not gone unnoticed; both US Army and ARVN agencies in Quang Nam have expressed an interest in obtaining these kits as they become available upon redeployment of Marine units.

Ordnance

During December, stock levels of ground and aviation munitions were generally at the requisite levels for continuing III MAF operations; however, 20mm ammunition, CBU-24, and CBU-49 stocks were in excess, pending disposition. Throughout the war, monthly air munition requirements were based on past usage history and anticipated deviations. This month, 1st Wing submitted revised monthly ammunition resupply requirements keyed to redeployment schedules, based on 1,300 attack sorties per month and typical load figures for each type aircraft assigned. These procedures are designed to plan requirements up to the final sortie prior to redeployment and to identify excesses in sufficient time to receive disposition instructions.

This year brought major reduction to the III MAF ground ordnance inventory; all tanks, anti-tank vehicles (Ontos), 175mm guns, and amphibian tractors have been redeployed from RVN. Another

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reflection of the general III MAF decreasence was termination of munitions support in September to US Navy units in MR 1, in preparation for transfer of all munitions support responsibility to the US Army. Additionally, the number of ammunition storage facilities was reduced from 13 to five, as total numbers of consumers--and targets--diminished throughout the year.

Aviation Logistics

December brought completion of two helicopter modification programs--one ahead of schedule. Installation of the last hydraulic closet armor kit (designed to protect the concentration of hydraulic controls located behind the pilot's seat from small arms fire) for 1st Wing CH-46Ds brought to a close a project estimated for completion in the middle of January. In early December, the retrofit of all in-country AH-1Gs with improved T53 engines was completed, and all power restrictions previously imposed were removed.

In reviewing the events of 1970, it is apparent that aviation maintenance units were proportionately represented among the redeploying; Marine Wing Support Group-17 relocated at Iwakuni in support of 1st Marine Aircraft Wing (Rear) as did H&MS-12 and MABS-12, and H&MS-13 and MABS-13 shifted to El Toro as part of 3d Marine Aircraft Wing. By the end of the year, the two remaining aircraft groups each had a maintenance responsibility of considerable diversity. MAG-11 had six different types of fixed wing aircraft to maintain, while MAG-16 had four types of helicopters to tend. Despite the magnitude of this challenge, aircraft operational readiness continued steady.

During the year, considerable emphasis has been placed on improvement of communication security within 1st Marine Aircraft Wing, to deny enemy access to vital information through his capability to monitor voice transmissions. The approach has been twofold: installation and employment of Nestor transmission encryption equipment (KY-8, KY-28, KY-38) to the maximum extent possible, and continued training of Wing personnel in effective communication security

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procedures.

Sufficient voice security equipment and compatible radios have been available to cover (encode) 1st Wing ground installations since the summer of 1969; however, total implementation has been delayed by nonavailability of modification kits for helicopters, observation aircraft, and their radios until the past few weeks. High performance aircraft have had covered communication for almost two years. At the end of the year, programed modifications had been completed on all UH-1Es, AH-1Gs, OV-10As, CH-53Ds, and 87 percent of the CH-46Ds. First Wing C-117Ds are not covered; however, to provide secure communication with supported ground units during flare drops, the C-117D has a portable field radio and accompanying Nestor equipment temporarily installed in the cargo compartment.

While the equipment was being modified, unit commanders have been conducting extensive training programs not only in the proper employment of automatic and manual encryption devices but also chary use of clear transmission. Both programs have been paying dividends; in the 30-day period ending 27 December, transmission security errors involving 1st Wing units were almost nil.

Today's aircraft are equipped with electronic equipment which aid navigation, target acquisition, and/or weapons delivery. While a number of tasks--mostly close air support--can be performed by aircraft with some of these devices temporarily inoperative, there are specific missions which require full systems availability. In order to enhance maintenance, a SACE (Semi-Automatic Checkout Equipment) complex was established at Danang and has been operating around the clock for the past thirty months. Throughout this time frame, a combination of factors (continuous operations, shortages of skilled personnel, required periodic inspections and checks, installation of modifications, and normal maintenance problems) have contributed to a gradual degradation of SACE capability and, ultimately, full systems availability.

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In September, field teams from repair facilities at Alameda and North Island in California arrived at Danang to commence rehabilitation and updating of the MAG-11 SACE complex. Following project completion on 11 October to include return of SACE equipment to full operational capability; incorporation of twelve support equipment changes; and complete rework of all A-6A SACE consoles and equipment, improved SACE support capability and reliability of removable aircraft components increased substantially. Additionally, critical personnel and resupply shortages were rectified, resulting in improved full systems availability in both A-6A and F-4B aircraft. Of the 13 A-6As in-country, full systems availability increased from a daily average of two to five in December. Similarly, full systems availability of F-4Bs (13 in-country) has risen to a daily average of eight.

NORS/NORM/OR

Reviewing the NORS/NORM and OR (not operationally ready due to supply/maintenance and operationally ready) statistics reflected on the following graphs, generally steady readiness rates can be seen for a year witnessing organizational and personnel turbulence. The CH-46D has proven itself dependable throughout most of the war, and 1970 was no exception, as availability consistently rose above the established readiness objective. The F-4B has also been a steady performer this year. However, the greatest improvement was seen in the A-6A which, in its first year after introduction in late 1966, seldom rose above 20 percent availability--and often fell short of that mark. In the intervening months, much has been learned and improved to make this aircraft a full-time asset in the supporting arms inventory. Undeniably, the most significant single step was upgrade/rehabilitation of the SACE complex. Since completion of the SACE project in October, A-6A availability has increased steadily, falling a mere two percentage points shy of the target readiness objective in December.

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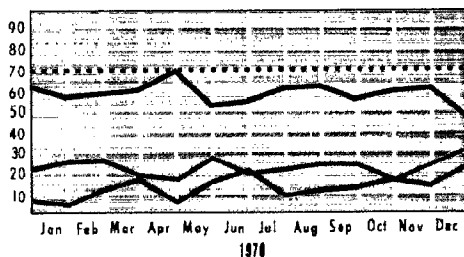
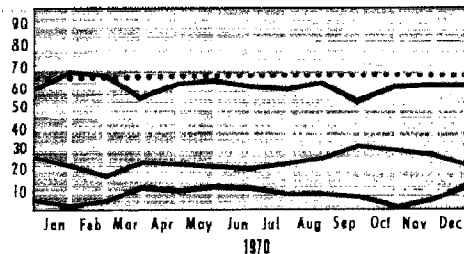
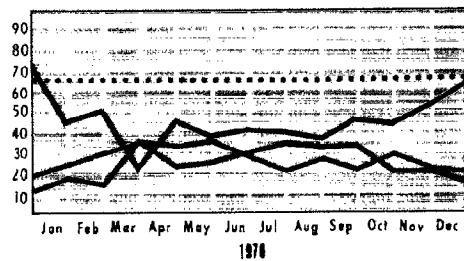
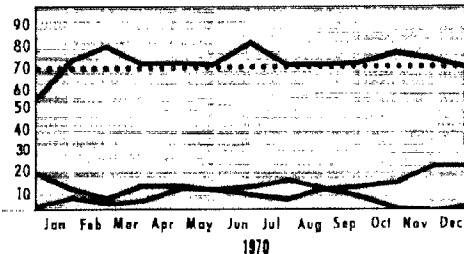
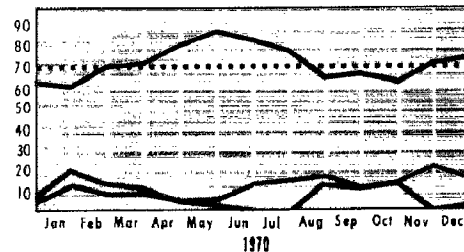
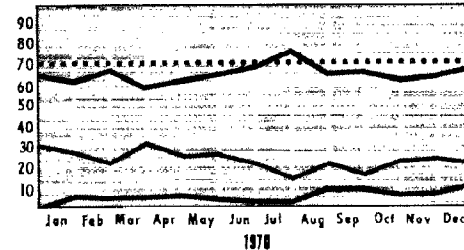
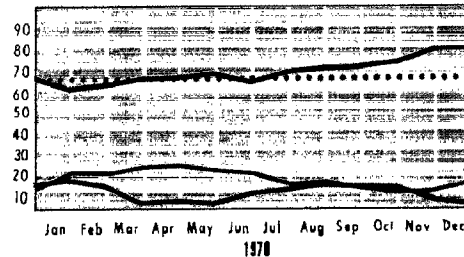
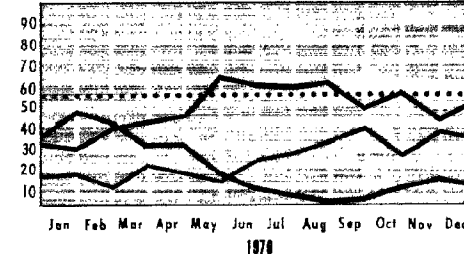
On the other hand, the A-4E--a reliable aircraft throughout the war--has suffered some degradation in readiness, due to supply deficiencies of reliable constant speed drives. This item has had an unusually high failure rate which thus far has eluded successful solution. In the interim, supply priorities have been readjusted in favor of 1st Wing A-4Es until a more lasting solution is found.

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NORS/NORM RATES - 1ST MARINE AIRCRAFT WING**A-4E (ATTACK)****F-4B (FIGHTER-ATTACK)****A-6A (ATTACK)****OV-10A (RECONNAISSANCE)****AH-1G (HELO)****UH-1E (HELO)****CH-46D (HELO)****CH-53D (HELO)**

READINESS OBJECTIVE

NORS —

NORM —

READY —

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