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OPERATIONS OF U. S. MARINE FORCES
VIETNAM

JANUARY AND FEBRUARY 1971

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FLEET MARINE FORCE, PACIFIC

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This is a summary of activities of US Marine Corps forces in Vietnam for the months of January and February 1971. Its purpose is to update similar historical reports covering the period from March 1965 through December 1970.

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SUMMARY

As III MAF made further preparations for another sizable redeployment of forces by end-April, the tenor of combat operations in January and February remained virtually unchanged. Actual fighting picked up somewhat throughout the Quang Nam lowlands—largely due to slightly heightened enemy activity during the Tet period—but not to a significant degree. In addition to several company size operations, small unit patrols and ambushes within the framework of named operations HOANG DIEU 101/103, IMPERIAL LAKE, and UPSHUR STREAM accounted for almost all Marine ground combat activity since the first of the year. These endeavors, which resulted in only sporadic contact, and similar operations by Combined Unit Pacification Program teams, Combined Action Program units, and Vietnamese forces provided security for ongoing rural development and pacification progress in the province.

Third Battalion, 5th Marines stand down in February—the forerunner of the entire Regiment's impending redeployment—was accompanied by a proportionate stand down of supporting organizations, including two 1st Wing aircraft squadrons and Marine Air Control Squadron-4. Although the latter actually left RVN, the Southeast Asia Tactical Data System Interface remained operational. These and earlier reductions precipitated termination of a long-standing program for expeditious development and delivery of new or specially modified equipment.

Redeployment operations and the herculean task of redistributing or retrograding large quantities of materials and equipment, while also continuing to provide normal support to ground and aviation units, fully occupied III MAF logistic personnel. Where possible, emphasis on economical utilization of assets prevailed—dismantlement of relocatable metal buildings for shipment to Okinawa and use of opportune shipping are but two illustrations.

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The tempo of 1st Marine Aircraft Wing operations, although slightly diminished toward late February due to helicopter and fixed wing squadron stand downs, remained at approximately the same level as in recent months. Some increase in sortie levels was fostered by considerable heavy-lift helicopter and fixed wing support to Operation LAM SON 719 in Quang Tri province and Laos. Additionally, LAM SON 719 activities necessitated a limited amount of logistic assistance from III MAF and displacement of a Marine air support radar team from Quang Tri to Khe Sanh.

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GROUND OPERATIONS

Combat in the III MAF tactical area during January was generally at the slightly increased level recorded the previous month but resulted in the highest enemy losses to Marines since last August. An upswing in minor enemy activity followed the observance of Tet in late January and early February; however, late February brought a return toward combat levels experienced during the fourth quarter of 1970. These variations were attributed to NVA/VC preparation for and execution of heightened combat activity normally associated with the new year, Tet, and early spring together with III MAF counteraction to disrupt and thwart these efforts. As a result of the latter, the initial phase of the communist winter/spring campaign (K-800 Plan) in Quang Nam was ineffective.

The following chart displays January and February III MAF ground combat results, inclusive of those registered by the counter guerrilla campaign (large/small units and CUPP teams), CAPs, and reconnaissance patrols.

III MAF COMBAT RESULTS

JANUARY

ENEMY LOSSES	USMC CASUALTIES
225 Killed	8 Killed
8 Captured	112 Wounded and evacuated
102 Weapons	

FEBRUARY

ENEMY LOSSES	USMC CASUALTIES
151 Killed	3 Killed
17 Captured	90 Wounded and evacuated
70 Weapons	

Especially active in January, Combined Unit Pacification Program (CUPP) units attained their best results ever. This achievement was accomplished mainly

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by teams from Company G, 5th Marines during frequent skirmishes in the general area from Baldy combat base to the Ba Ren river and west to Phu Loc Valley--a long-time enemy line of communication (LOC) connecting the Nui Loc Son basin with regions around Hoi An, An Hoa, and Danang.

Combined Action Program and reconnaissance activity continued to produce few enemy casualties. Combined action platoons (CAP) were restricted somewhat from conducting operations beyond their villages, as RVNAF saturation maneuvers throughout the countryside continued. On the other hand, wide-ranging reconnaissance patrols detected but minimum traffic on mountainous approaches to the piedmont; major NVA units remained disposed to the west, and fighting in the lowlands was carried out mostly by VC main and local forces.

III MAF Unit Dispositions and Redeployments

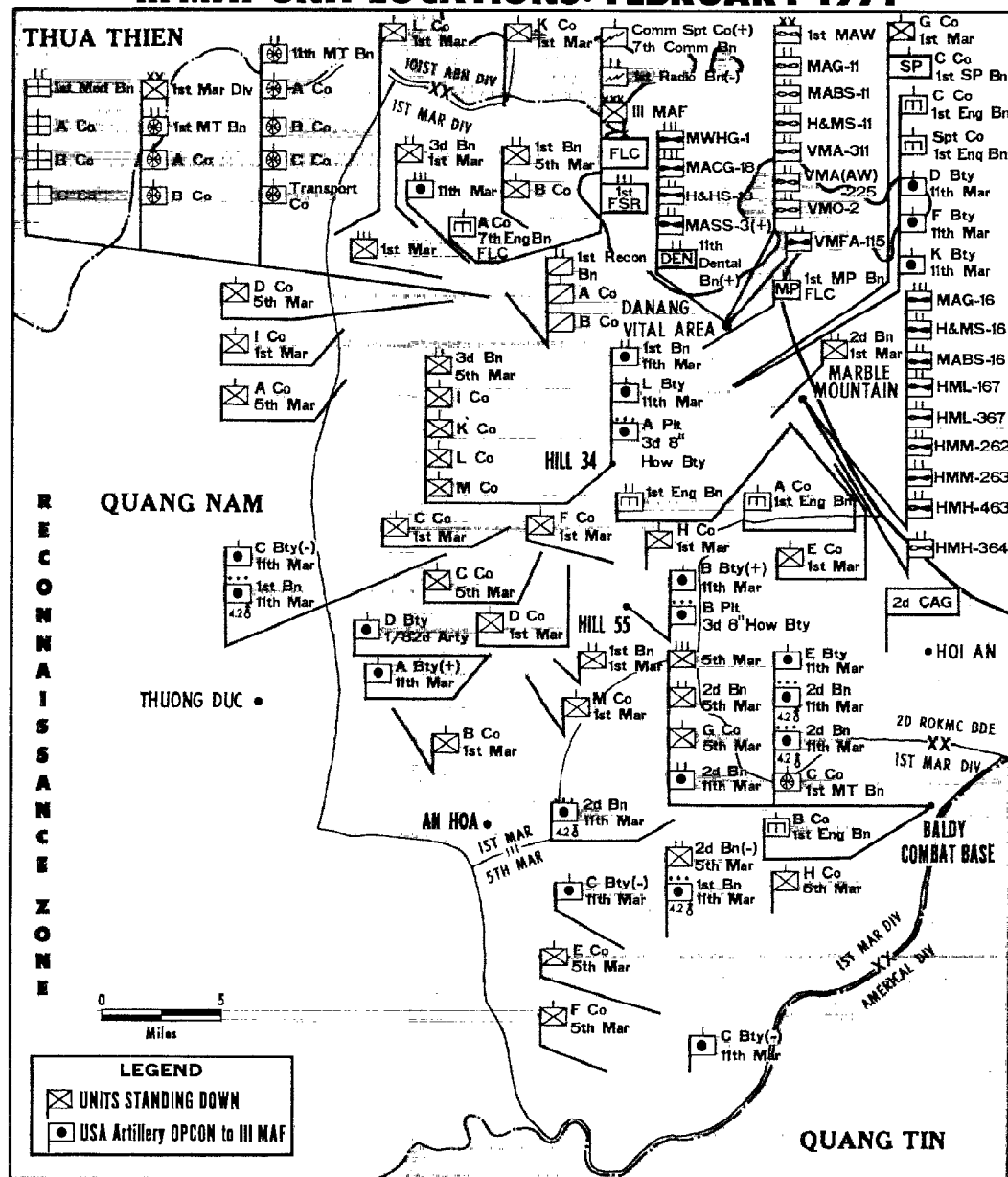
No ground combat units left MR 1 during the first two months of 1971; however, 3d Battalion, 5th Marines stood down from combat operations on 15 February and moved to Hill 34 in preparation for sailing to CONUS during March. III MAF, retaining tactical responsibility for the area vacated by 3d Battalion, compensated for the reduction in troop density by employing 2d Battalion, 5th Marines patrols to scour the Que Son mountains. Additionally, increased RVNAF operations in the lowlands of Que Son district adequately covered areas formerly patrolled by Marines. At the same time, facilities occupied by 3d Battalion were either transferred or dismantled--Ross combat base went to the ARVN, and Fire Support Base (FSB) Ryder and some permanent observation posts were closed. In addition, three artillery batteries and several other ground and aviation supporting units ceased operations, bringing III MAF to the threshold of another major redeployment of forces. Preparations were underway to disengage in other areas as well--CUPP teams were reverting to their regular infantry roles and medical and dental civic actions were winding down.

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The map below shows locations of principal
III MAF air and ground units at end-February.

III MAF UNIT LOCATIONS: FEBRUARY 1971



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Counter guerrilla Operations

III MAF deployed 7,103 patrols, ambushes, and company operations throughout the coastal region of Quang Nam in January and 6,241 in February. These small unit activities were conducted by units assigned to Operations IMPERIAL LAKE, HOANG DIEU 101, UPSHUR STREAM, and HOANG DIEU 103 as well as by others not involved in named operations.

January recorded 208 contacts (same as in December) which resulted in 195 NVA/VC killed--the highest number in five months. Enemy losses in February (151 killed) were also above the monthly values registered between September and December last year but were down from January's, because Tet-associated activity declined after midmonth.

HOANG DIEU 101, an RVNAF operation joined by III MAF and 2d ROKMC Brigade units on 17 December 1970, was brought to a close on 19 January. III MAF small unit sweeps and patrols since the first of the year scored 83 more enemy killed, 54 detainees, and 12 weapons captured in the three-week period. Most actions involving Marines--mainly CUPP team contacts and artillery missions controlled by aerial observers--were centered in the area three to four miles north and west of Baldy combat base. HOANG DIEU 101 was regarded as another highly successful, cooperative small unit saturation effort; in all, Korean and US Marines and RVNAF units accounted for 538 NVA/VC killed, 168 detainees, 87 prisoners, 45 Hoi Chanh, and 171 weapons.

Small unit saturation operations employing all Quang Nam forces in coordinated activity since October have enhanced population security in the province and resulted in more than 1,600 enemy captured or killed through January 31. Almost as important was detention of more than 700 suspects, many of whom were later classified Viet Cong infrastructure (VCI) cadre, including a few high-level leaders. Following the respite normally associated

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with the celebration of Tet, the RVNAF with III MAF and ROKMC support launched HOANG DIEU 103 on 3 February. The disposition of friendly forces was much the same as employed in the two previous HOANG DIEU operations--RVNAF extensively patrolling the lowlands, ROKMC units operating in their normal areas, and III MAF conducting operations primarily along the fringes of the lowlands. Through end-month, III MAF units had killed 78 enemy, taken 104 detainees, and captured 34 weapons, generally in small independent actions such as the following.

At 1325 on the 5th, a Company F, 5th Marines quick reaction force (QRF) was inserted four miles west of Baldy to check out an intelligence-acquired target. While the platoon was maneuvering toward the Que Son foothills, rifle fire was received from a position 50 yards distant. The unit responded with small arms fire, and armed helicopters joined in the attack. These combined efforts resulted in six VC killed, four suspects detained, and seven weapons taken. In a contact three days later and four miles to the south, another Company F quick reaction force killed three VC, while supporting armed helicopters claimed four more.

On the 14th, a squad patrol from Company A, 1st Marines, moving to check out a bunker on the south bank of the Vu Gia river near Hill 65, received a grenade from the position. The unit returned a heavy volume of small arms fire which soon forced five Vietnamese to surrender; another five were found hiding in the bunker.

Late in the afternoon on 24 February, a Marine HCA (Helicopter Coordinator Airborne) on a visual reconnaissance mission spotted three bunkers, a hut, plus numerous packs and rifles laying in the open just north of the Ba Ren river three and a half miles north of Baldy. Armed helicopters strafed the area, and a QRF from Company E, 5th Marines moved into the action and forced the VC from concealment, thus exposing them to deadly small arms, aerial

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rocket, and machine gun fire. Seven VC were killed by the QRF, and eight were credited to the aircrews; two detainees, two weapons, and several documents were also taken.

Operation UPSHUR STREAM, starting on 11 January and continuing through February, was conducted by elements from 1st and 3d Battalions, 1st Marines to interdict enemy LOCs in the Charlie Ridge region and to search for elements of the 575th NVA Artillery/Rocket Battalion. By 28 February, the operation was reduced to only 1st Battalion participation, as scant action prevailed; three enemy had been killed, 30 suspects detained, and 31 weapons seized. Twenty-four of the weapons were found by a Company K patrol on the fourth day of the operation in a base camp, which also yielded a supply of rice, two sewing machines, five radios, a quantity of medical supplies, and other assorted equipment and documents.

Operation IMPERIAL LAKE continued in the Que Son mountains through February, but with a smaller force because of troop constraints imposed by stand down of 3d Battalion, 5th Marines. Action was sporadic, but contacts over the two-month period cost the enemy 87 soldiers--mostly to artillery fire directed by reconnaissance teams and IOD (Integrated Observation Device) observers. The most heated engagement took place on the afternoon of 25 January near a Company L, 5th Marines platoon patrol base on high ground three miles north of Ross combat base. When Vietnamese voices were heard approaching the encampment, a squad maneuvered to investigate, whereupon it observed an NVA squad moving casually up a trail. The Marines, from a hasty ambush, killed nine NVA and captured an AK-47 rifle, two pistols, and some miscellaneous equipment and ordnance. Cumulative results for IMPERIAL LAKE now stand at 283 NVA/VC killed, 156 enemy suspects detained, and 208 weapons seized.

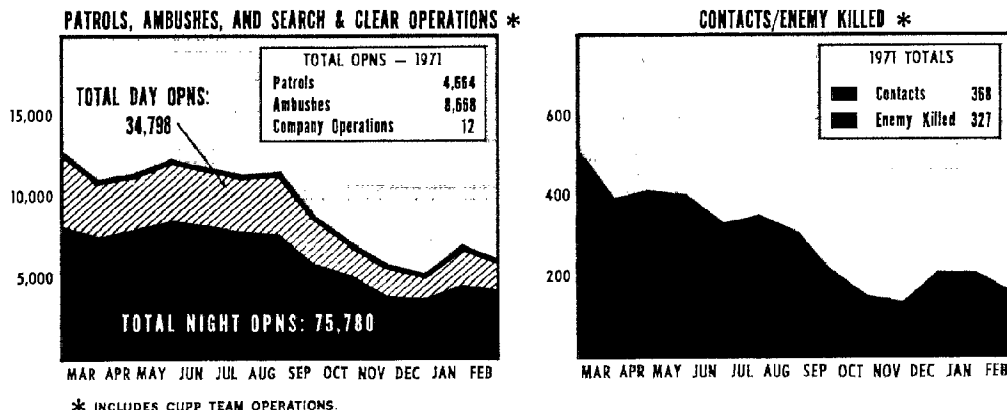
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The graphs below depict the levels of Marine small unit activity (including CUPP operations) and enemy losses to the counter guerrilla campaign for the past year.

MARINE SMALL UNIT OPERATIONS: MAR 1970 - FEB 1971



Eleventh Marines artillery missions fired in support of III MAF units were credited with 64 enemy killed in January and 28 in February. Of the former, 49 resulted from 188 IOD-directed artillery attacks, while during 122 artillery missions in February, 19 were killed. During both months, 26 destroyed structures and 68 secondary explosions resulted from supporting arms follow-up of IOD sightings.

The new year saw introduction of Phase III sensors and auxiliary equipment into the III MAF inventory. Concurrently, a counter-rocket, sensor implant operation was conducted--nine new strings were employed along infiltration routes around the periphery of the Danang rocket threat area. This increased usage of sensors continued a reversal of the downward sensor employment trend evident during the period June to November 1970. The pre-Tet upsurge of enemy movement resulted in 37 targetable activations being detected in the III MAF area. Eleven

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artillery fire missions and, on four occasions, armed helicopters were directed against the targets, resulting in at least eight enemy killed.

-Combined Unit Pacification Program

CUPP teams and their Regional and Popular Force (RF/PF) counterparts were frequently engaged by the enemy during January--especially Company G, 5th Marines teams. These combined units exacted a heavy toll on the enemy--63 NVA/VC were killed, two others were taken prisoner, ten rallied, and 2,900 pounds of rice, seven weapons, and assorted amounts of ordnance and medical supplies were seized. Even so, the fighting was not without cost; two Marines were killed, and 26 were wounded and evacuated along with one RF and 16 PF soldiers. In addition, two mine/booby trap detection dogs were killed in action.

Most of the CUPP unit contacts were gained in the vicinity of Baldy combat base. The first significant engagement took place on the 12th a little over a mile west of the base, when CUPP Team-10 was on a night patrol. At 0120, the point man observed approximately 20 enemy to his front in an ambush position and alerted those behind him to set up a hasty defense. The enemy, instead of triggering the ambush, sent a four-man team forward to probe the unit's front; they were met with a hail of bullets and grenades which killed two VC. Within minutes, a Black Hammer--two armed helicopters led by a UH-1E equipped with a Night Observation Device (NOD)--arrived overhead and supported the CUPP team's assault. Contact was broken two and a half hours later, and at daylight, 16 dead VC were found on the battlefield, nine killed by supporting helicopters. A week later, CUPP Team-6 with Black Hammer assistance killed 12 enemy two miles northwest of Baldy, and in a fight on the 22d, the Team killed eight more VC.

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The tempo of action involving CUPP units during February declined sharply from the two previous months. Nevertheless, pressure maintained by CUPP teams accounted for 39 VC killed, 12 prisoners, and eight weapons. On the 2d, CUPP Team-9 observed an enemy element about 200 yards from its position, which was three miles north of Baldy. The unit moved to a blocking position and engaged the enemy, five of whom fled into a bunker where they were killed forthwith by hand grenades.

CUPP Team-4 (an element of Company M, 1st Marines) joined with Company B, 1st Marines and the 193d RF Company in the early hours of 17 February to turn back a VC mortar-supported attack against Ha Nha village, which is located in the Thuong Duc corridor five miles west-southwest of Hill 65. The fighting lasted for nearly four hours and was supported by 11th Marines artillery fire. While the results were meager--two VC killed and five RFs and four civilians wounded--the action demonstrated expanded GVN influence along the western fringe of the lowlands.

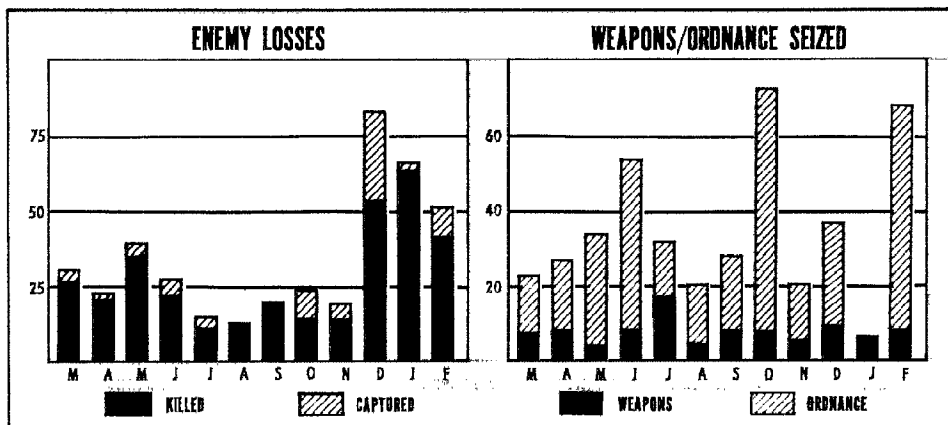
Through January and February, CUPP operations and training further enhanced RF and PF ability to halt enemy incursions into populated regions, a factor of increasing importance as the redeployment program moves forward. One CUPP unit (a Company I, 1st Marines team) in January and four (all from Company M, 1st Marines) during February were disestablished, leaving a total of 17 at the end of the period. Each hamlet from which CUPP support was withdrawn had achieved the second highest Hamlet Evaluation System security rating and possessed effective Vietnamese security elements.

The following charts show CUPP results for 1971 and compare them to past accomplishments.

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MARINE CUPP RESULTS: MARCH 1970 — FEBRUARY 1971Reconnaissance Operations

The availability of reconnaissance teams for field employment was the same as for the last quarter of 1970--15 available on any given day, and an average of eight actually deployed. There was some curtailment of helilift activities incident to reconnaissance operations due to poor weather, but the use of patrol bases in the Que Son mountains facilitated deployment and resupply of patrols. During January and February, 1st Reconnaissance Battalion teams conducted 1,019 patrols, sighted and monitored the activities of groups totaling approximately 240 enemy, and killed 28 NVA/VC in 20 separate engagements.

The largest contact occurred at 1000 on 8 January above Antenna Valley in the Que Sons six miles west-northwest of Ross combat base. Patrol WAGE EARNER engaged eight VC moving on a trail 25 yards east of the team position, killing three. During a subsequent search of the area, the unit made contact with four more enemy, which resulted in a brisk exchange of small arms fire and three more VC killed. In February, three of seven enemy killed during reconnaissance operations were by team

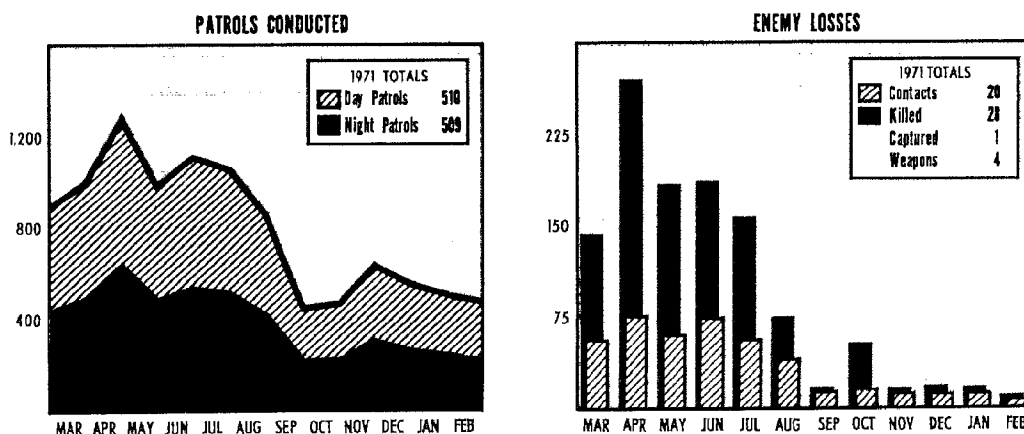
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COSSACK on the 15th, when it and a supporting OV-10A attacked a small enemy group in the mountains three miles southeast of An Hoa.

The following graphs compare January and February reconnaissance operations and results with monthly totals since March of last year.

RECONNAISSANCE OPERATIONS: MAR 1970 - FEB 1971



Combined Action Program

During January, 2d Combined Action Group (CAG) organization remained at five company headquarters and 34 combined action platoons--612 Marines, a Navy chaplain, 48 Navy corpsmen, and 719 PF and 102 RF soldiers. These units conducted 1,262 day and 569 night patrols and 1,502 ambushes, resulting in 12 VC killed, four taken prisoner, and seven weapons seized during clashes with small bands of enemy.

In February, the CAG (with no unit deactivations) registered a decline in total strength, down to 1,421 from 1,484, due mostly to fewer PFs. The 34 CAPs conducted 1,749 patrols and 1,764 ambushes. Combat during the month accounted for 17 VC and two NVA killed, three VC and one NVA prisoner, and 14 weapons captured.

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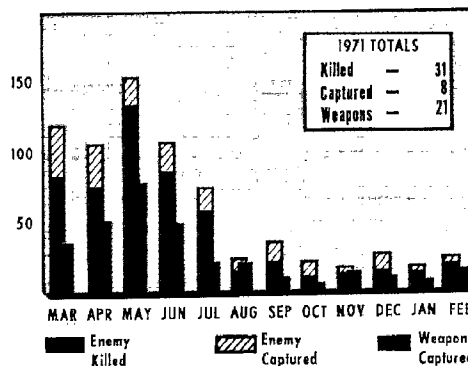
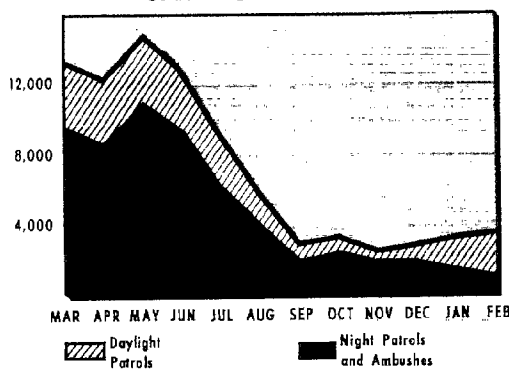
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The largest contact during the two-month period was by CAP 2-7-10 six miles south-southwest of Marble Mountain at midday on 2 February. The initial engagement with the squad size force ended in five VC killed, two captured, and three weapons and some grenades seized. During a detailed search of the contact site, the CAP located a tunnel complex along the bank of the Vinh Dien river, destruction of which resulted in two more enemy killed and another weapon taken.

The following graphs show combined action activity and results for the first two months of 1970 with trends since last March.

COMBINED ACTION ACTIVITIES: MAR 70 - FEB 71



RVNAF Operations in Quang Nam

On 1 January, the recently organized Quang Da Special Zone (QDSZ) Headquarters was redesignated as 1st Task Force Headquarters. The new command retained operational control over all Quang Nam RVNAF assets--51st Regiment, 1st Ranger Group (21st, 37th, and 39th Battalions), 1st Armored Brigade, and the 78th and 79th Border Ranger Defense Battalions.

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RVNAF operations within the province during January were almost wholly conducted as part of HOANG DIEU 101. The largest single contact was registered by the 21st Rangers on the 9th while searching the northern Arizona area seven miles southwest of Hill 55. The unit waged a pitched battle with a company size force, which ended with 21 enemy killed, one VC nurse taken prisoner, and five weapons seized. The commander of the Q83d Local Force Company was counted among the dead. The Rangers killed nine more and took nine detainees in a contact three miles to the east five days later.

Also on the 9th, the 48th PF Platoon ambushed a sampan on the Tuy Loan river three miles west-southwest of Hill 34. The craft was sunk and eight VC were killed, with four weapons later retrieved from the water. The 1-20th RF Group, while conducting a raid a mile and a half northwest of Baldy on the 13th, battled with a VC platoon and killed seven of the enemy, captured one, and seized a cache of rice. The following day, the 161st RF Company killed eight VC and seized an AK-47 rifle during a search operation two miles northeast of An Hoa.

Through 19 January, RVNAF units added 180 enemy killed, 30 weapons, and 88 detainees to the HOANG DIEU 101 results. Upon termination of the operation, elements of the 51st Regiment commenced Operation HUNG QUANG 1/51, which lasted until 3 February when HOANG DIEU 103 commenced, and accounted for 24 NVA/VC killed, two detainees, and 16 weapons.

HOANG DIEU 103 continued through end-month, tallying 115 enemy killed, 21 detainees, and 40 weapons. In this operation, 1st Task Force units again are conducting extensive small unit activities in and around the populated areas where they have been especially successful in rooting out VC and infrastructure cadre members. The 1st Ranger Group

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did not participate in the operation, as it was sent north to fight in LAM SON 719, a thrust to disrupt the flow of supplies along the Ho Chi Minh Trail in Laos.

Enemy Activity

During early January, the enemy had the bulk of his forces spread throughout the province, mostly in the highlands; however as the month progressed, increased traffic of small elements was detected moving toward lowland areas. This activity was associated with enemy preparations to launch the K-800 Plan spring offensive--generally calling for attacks by fire with some limited ground follow-up, increased terrorism, and similar acts directed at disruption of pacification efforts and GVN functions (with municipal areas of Danang and Hoi An slated for politically oriented activities).

Enemy-initiated activity in the III MAF area did increase over that experienced in December; however, no pre-Tet major action was forthcoming. This was primarily attributed to Free World operations in the province preempting planned enemy activity. An average of 20 incidents per week was recorded in the III MAF area (seven above the December average). Meanwhile, five ground assaults and six attacks by fire of some significance were registered.

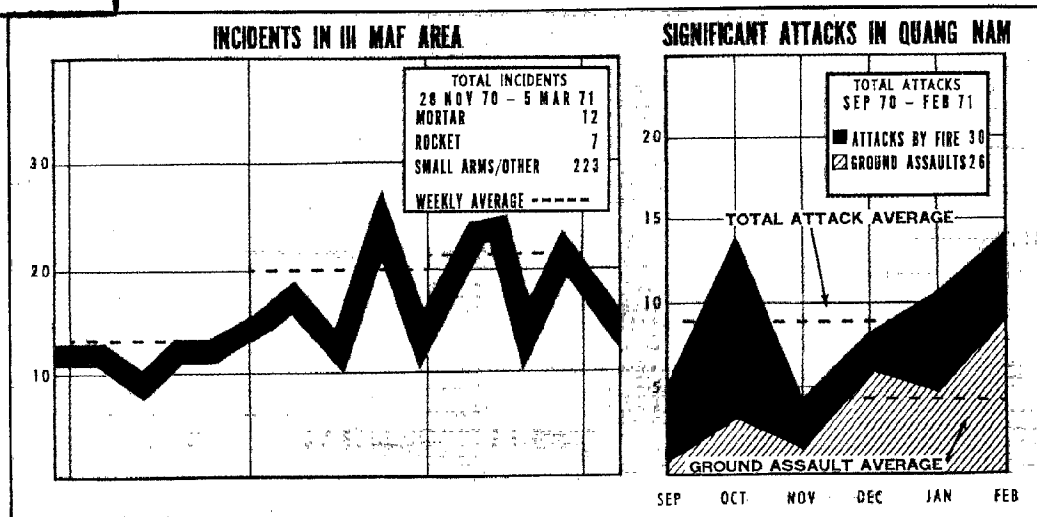
The enemy mustered a modest surge in action following Tet, but it was short-lived, as HOANG DIEU 103 maneuver scattered and killed many of his forces. During February, the weekly average for enemy incidents in the III MAF area rose to 21.5, while a total of 14 significant attacks were recorded throughout the province, the most since October.

The following graphs compare monthly levels of enemy-initiated activity.

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ENEMY-INITIATED ACTION

During January, XXIV Corps units in Operation DEWEY CANYON II and RVNAF units in LAM SON 719 pushed westward along Route 9 in Quang Tri province and re-established a Free World presence in the Khe Sanh region. On 8 February, ARVN forces crossed the Lao-tian/RVN border to launch the second phase of LAM SON 719, supported by Free World airpower, but with US ground forces remaining in RVN. By end-February, heavy casualties had been inflicted on the enemy and many routes comprising the Ho Chi Minh Trail (including Route 92) had been cut. Vast amounts of food and ordnance were also uncovered, and trucks, tanks, and artillery/antiaircraft pieces were either captured or destroyed. The ARVN successes prompted the communists to commit numerous reinforcements to the area, and regimental size counterattacks were encountered.

The LAM SON 719 incursion against the hub of the Ho Chi Minh Trail in Laos had little noticeable effect on Quang Nam operations. Overall disposition of major enemy units in Quang Nam did not change substantially through end-February. There was, however,

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a decrease in total enemy strength. The following chart compares NVA, VC, guerrilla, and VCI strengths in Quang Nam with those in the rest of MR 1.

ENEMY STRENGTH IN MR 1: FEBRUARY 1971

	NVA	VC	GUER.	VCI	TOTAL
QUANG TRI	14,250	550	550	1,050	16,400
THUA THIEN	10,000	350	550	1,400	12,300
QUANG NAM	7,250	1,700	2,750	4,150	15,850
QUANG TIN	4,500	3,100	1,100	6,550	15,250
QUANG NGAI	3,600	2,100	2,450	3,250	11,400
MR 1 TOTAL	39,600	7,800	7,400	16,400	71,200

The disruption of enemy logistic operations in Laos undoubtedly will affect the ability of Front 4 to mount any major offensive action in the near future. As planned, the operation provides some long range security for the continuation of US troop redeployments.

Fire Support Information System

One of the most difficult tasks during the Vietnam war has been accurate location of enemy forces. Toward this end, many new ideas, techniques, and equipment have been used by III MAF-- the Kit Carson Scout Program, County Fair operations, unattended ground sensors, and IODs are but a few examples. Some, such as the latter two, made use of technology not available in earlier wars. Included in this category is the 1st Marine Division

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Fire Support Information System (FSIS), utilizing the advanced data processing capability organic to Force Logistic Command's Data Processing Platoon (DPP)-16 (formerly Automated Services Center, Vietnam).

Conceptually, FSIS is a highly flexible and responsive process which stores and retrieves tactical intelligence data collected by 25 categories of sources, such as sensors, observers, reconnaissance units, prisoners, agents, and maneuver units. Despite enemy efforts to vary his base camps, ambush sites, and routes of approach, he is limited by the physical characteristics of the terrain to relatively few choices in any given area. By observation over a period of time, his alternatives become readily apparent, forming distinct patterns which permit reasonably accurate prediction of future utilization. This information is particularly useful in planning fires to harass and interdict enemy effort; however, it also focuses on high enemy offensive concentration, such as areas especially prone to surprise-firing device employment or repeated antiaircraft attacks. While the principal users of the FSIS are 1st Division and 1st Wing, the information has been provided to other Free World Forces.

Focal point of the data collection is the Target Information Section of the Division Fire Support Coordination Center, where field input reports are reviewed before being forwarded to DPP-16. At the data processing site the input sheets are edited, keypunched, and placed on computer tape or disk files--the entire process from source to file normally taking place within 48 hours. Extensive information is available on each indication of enemy activity listed in the system; for example, accurate map coordinates, description, detection source, and the date and time of reporting can be provided. Further, data as to whether or not the target was engaged, type of weapon/ordnance used, results, and firing unit is also available.

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Information can be presented to the users in several formats, some of which are distributed as weekly reports, others as on-call overlays and listings, and still others as special requests. Typical of the weekly reports is one which plots and lists all antiaircraft incidents within a five-mile radius of Danang Air Base, by altitude and time of day. With this information, aircraft approach routes and holding patterns can be shifted to the least vulnerable locations.

On-call overlays and listings are especially useful. One such, the target density overlay, shows a graphic plot of locations and density of specific types of targets within a selected area 116 by 100 kilometers. Another is an overlay, prepared in the same scale as tactical maps, which shows the location of up to five types of targets selected by the user in a region 8x12 kilometers. For more detailed analyses, series of 3x3 kilometer plots describing all targets in the area can be obtained. Each of these overlays, as well as a complete listing of all targets within a given area, are available within fifteen minutes after being called for.

To date, the FSIS contains more than 70,000 targets dating back to 1968, at least 30,000 of which have been added since June of last year. In addition to weekly and special reports prepared by the system, over 350 requests for on-call listings or overlays have been made since last August alone. Although not the panacea for locating the NVA/VC, the FSIS is one more example of III MAF forces using modern technology to assist in defeating the enemy.

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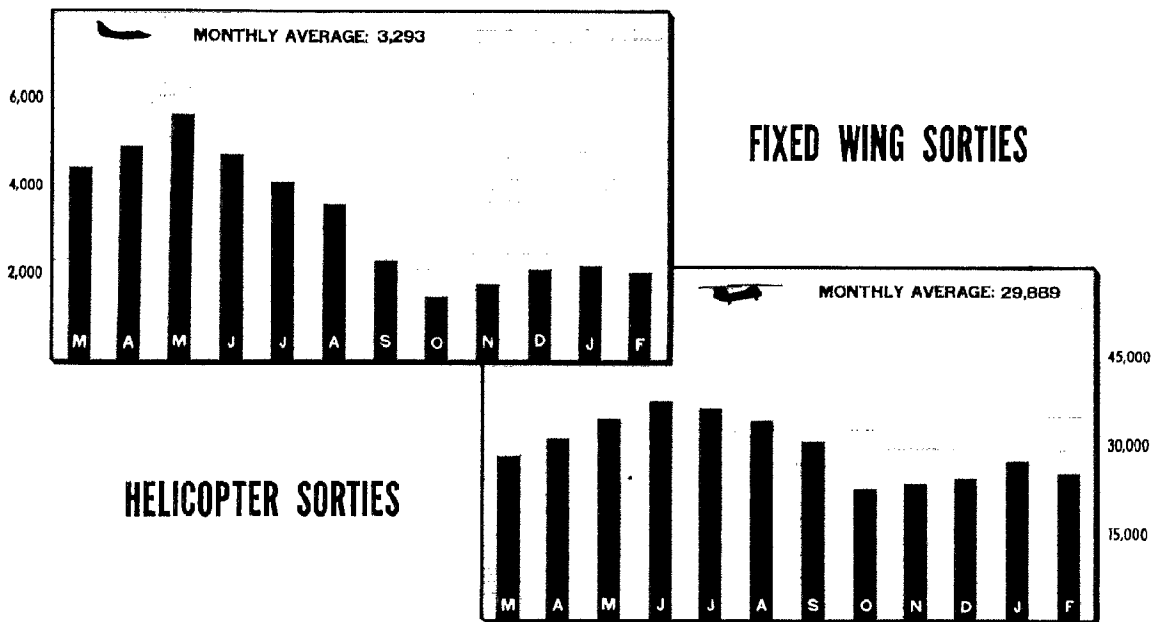
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AIR OPERATIONS

During January and February--a period which saw tactical relocation of one air support radar team, considerable aviation support for Operation LAM SON 719, and stand down of two more aircraft squadrons--1st Marine Aircraft Wing operations increased slightly over the pace set during the preceding three months. Despite stand down of a fighter/attack squadron toward the end of February, combat sorties flown by Marine Aircraft Group (MAG)-11 in February (2,016) approached the January level of 2,185. In each month, the prevailing attack sortie ceiling of 1,300 was met, providing required support for USMC units as well as numerous missions for other Free World forces in RVN and out-of-country.

The graphs below show the relationship of 1st Wing operations this year to those since March 1970.

MARINE AIR OPERATIONS : MARCH 1970 - FEBRUARY 1971



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MAG-16 helicopters, operating from Marble Mountain Air Facility and for short daytime periods out of Baldy and Khe Sanh combat bases, flew more sorties in both January and February than in December. These included a small number of test flights of the AH-1J, an improved twin-engine armed helicopter which has been introduced during this period for operational combat evaluation. The decline from January to February (27,213 to 25,073 sorties) was partially attributable to standing down a medium helicopter squadron in the last week of February.

In-Country Fixed Wing Operations

Although activity essentially remained low during the two months, Marine fixed wing aircraft provided ready response against targets of opportunity as well as preplanned close, direct, and interdiction air support for MR 1 forces. On 22 February, Marine Fighter/Attack Squadron (VMFA)-115 stood down from combat operations and made final preparations to move to 1st Marine Aircraft Wing (Rear) at Iwakuni, Japan as part of the sixth redeployment increment.

Nevertheless, MAG-11 squadrons delivered impressive amounts of munitions during the period-- 2,979 tons of bombs, 718 canisters of napalm, and some 11,000 air to ground rockets. Close air support was the predominant attack mission (49 percent) of the 1,205 strike sorties during the two months, while interdiction (35 percent) and direct air support (16 percent) accounted for the remainder. Combat support sorties numbered 788, as OV-10A aircraft from Marine Observation Squadron (VMO)-2 flew 509 visual reconnaissance (VR), 218 forward air controller (airborne), and nine photographic missions. The TA-4Fs from Headquarters and Maintenance Squadron (H&MS)-11 flew 52 high-speed, low-level VR missions throughout MR 1 in support of Free World forces.

MAG-11, with its mixed inventory of planes (A-4E, A-6A, F-4B, TA-4F, and OV-10A), was credited

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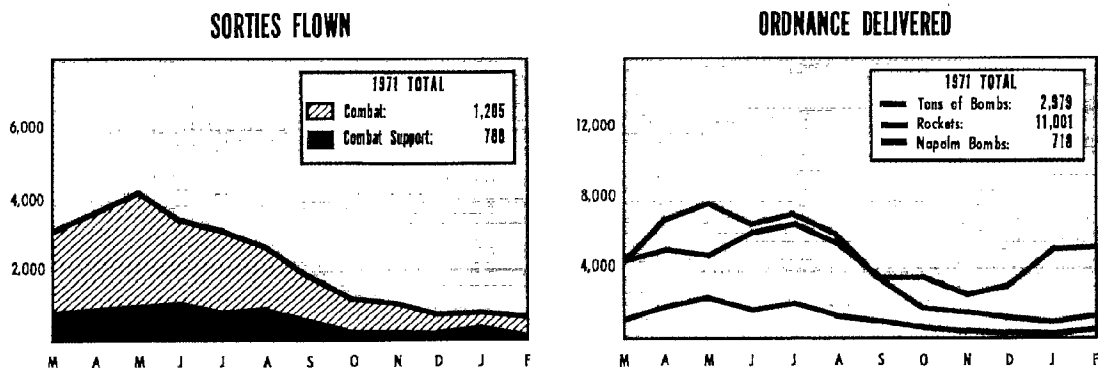
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with killing 31 NVA/VC, 22 of which were tallied by Marine Attack Squadron (VMA)-311. This Squadron logged 713 strike sorties, almost half of which were for close air support. On the 17th of January, a section of 311's Skyhawks were directed against an enemy location 16 miles southwest of An Hoa. Following several bomb runs, six enemy bodies were observed in the target area. In addition to enemy killed, the VMA-311 sorties and 275 by A-6As from Marine All-weather Attack Squadron (VMA(AW))-225, 186 by VMFA-115, and 31 by H&MS-11 TA-4Fs produced 331 secondary explosions and fires, as well as 219 bunkers and 181 structures destroyed or damaged. Also destroyed were eight anti-aircraft gun positions--five by VMFA-115.

Although fixed wing operations increased during January and February, the general tempo over the past year has declined, as can be seen in the following comparisons of monthly statistics.

IN-COUNTRY FIXED WING SUPPORT BY MARINE AIRCRAFT

MARCH 1970 - FEBRUARY 1971



Helicopter Operations

MAG-16 increased operations during this two-month period over the pace which had been decreasing since October. Provision of considerable helicopter

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support to US Army and RVNAF units conducting Operation DEWEY CANYON II/LAM SON 719 in northern MR 1 was partially responsible for the rise.

On 26 January, MAG-16 commenced helicopter support to LAM SON 719, augmenting other US support with four to six CH-53Ds and two to four AH-1Gs operating from Khe Sanh each day. By 28 February, 1st Wing helicopters had flown 3,264 sorties in RVN and Laos in support of LAM SON 719. Marine Heavy Helicopter Squadron (HMH)-463, flying CH-53D helicopters capable of lifting heavy tonnages under prevailing conditions, logged 2,103 of these while lifting 1,239 passengers and 3,458 tons of cargo. Accompanying AH-1G Cobras, providing armed helicopter escort for the CH-53Ds, accumulated 1,123 sorties. Escort support was almost always a necessity, evidenced by the 847 2.75-inch air to ground rockets, 5,605 40mm grenades, and 20,750 rounds of light machine gun ammunition expended. Including daily support in LAM SON 719 from 26 January to 28 February, HMH-463 totaled 5,762 sorties since the first of the year. The Sea Stallions lifted a total of 23,738 passengers and 9,518 tons of cargo during this two-month period.

With considerable CH-53D helicopter support going to the north, Marine Medium Helicopter Squadrons (HMM)-262, 263, and 364 increased support for Free World forces in Quang Nam to 14,235 sorties in January. In February however, CH-46Ds flew but 12,001 sorties--a reduction due to stand down of HMM-364. Moving casualties on medical evacuation flights, transporting combat troops and cargo, and supporting units of 1st Reconnaissance Battalion accounted for 63 percent of Sea Knight sorties. The three medium helicopter squadrons lifted 34,516 passengers and 633 tons of cargo during January and 31,144 passengers and 561 tons of cargo in February.

Marine Light Helicopter Squadron (HML)-167, flying the UH-1E Iroquois, flew 10,214 sorties (lifting 5,253 personnel) during January/February,

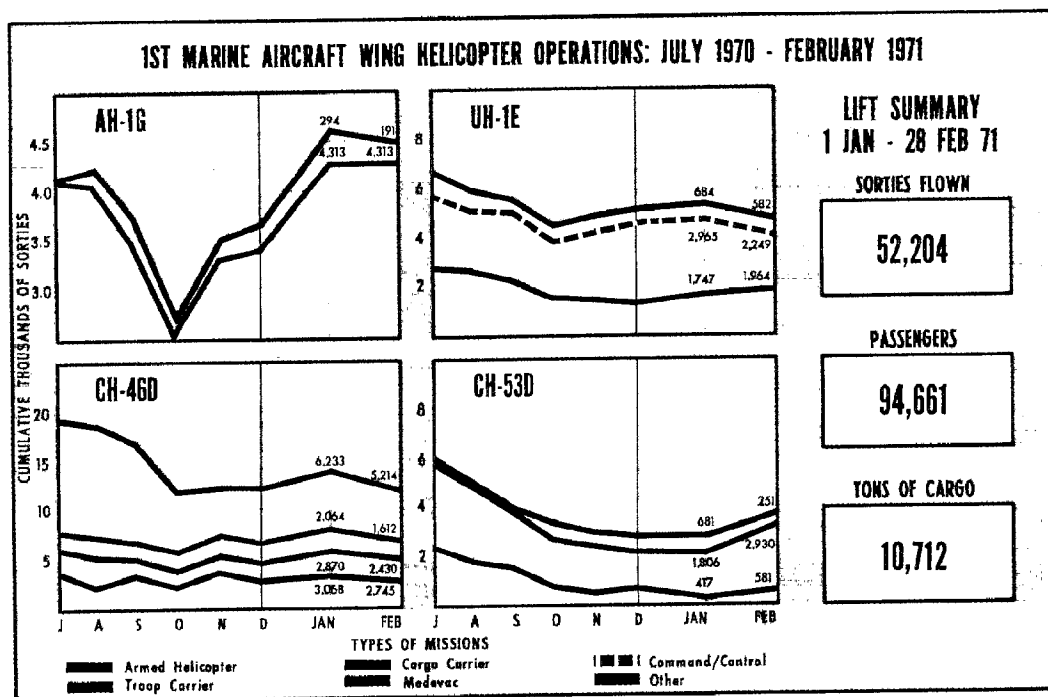
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a large number of which were performing command and control missions. Armed helicopter escort accounted for 3,711 sorties, 16 in support of LAM SON 719. HML-367 flew 9,121 sorties, with 8,625 in the armed helicopter escort role. The Cobras and Iroquois killed 49 NVA/VC during this period. Sixteen of these were by UH-1E helicopters using the NOD, mostly in the 5th Marines tactical area of responsibility. Another 12 were killed by the armed helicopter package dedicated to supporting the 5th Marines quick reaction force during daylight. Eleven more were killed on daily flights over the rocket belt around Danang.

The following graphs reflect helicopter operations for the past eight months and the 1971 lift summary.



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UNCLASSIFIEDOut-of-Country Operations

First Wing out-of-country missions totaled 1,410 strike and 299 combat support sorties during January and February. The effort to destroy logistic supply lines in Laos and Cambodia continued; storage areas, transshipment points, and moving vehicles along the heavily traveled routes of the Ho Chi Minh Trail were attacked by fixed wing aircraft. MAG-11 accounted for 143 trucks destroyed plus 34 damaged, 775 secondary explosions and fires, 149 road cuts or slides, and nine antiaircraft gun positions destroyed.

Pilots of VMA-311 logged 743 of these deep support flights, four of which were flown on 27 January against enemy positions, bunkers, and storage areas in Cambodia. The A-4Es were accompanied by two F-4Bs from VMFA-115. After the dust raised by the 26 750-pound bombs had cleared, 50 separate fires were observed blazing where a number of secondary explosions had been seen.

VMA(AW)-225 aircrews flying A-6A Intruders continued to exploit the unique target acquisition system of their planes, striking along the Ho Chi Minh Trail at night. A total of 418 strike/armed reconnaissance sorties--averaging seven daily--were flown, with 92 percent of the missions during darkness. On 12 February just before midnight, one crew identified a sensor-located target on the Ho Chi Minh Trail some 20 miles northwest of Tchepone in Laos. Damage from the six cluster bomb units dropped was unusually high--152 secondary explosions were observed as well as two destroyed trucks and two fires.

VMFA-115 flew 413 out-of-country missions during January and February prior to standing down from combat operations on 22 February. These missions included 245 strike sorties in Laos and the two in Cambodia mentioned above. Combat air patrol

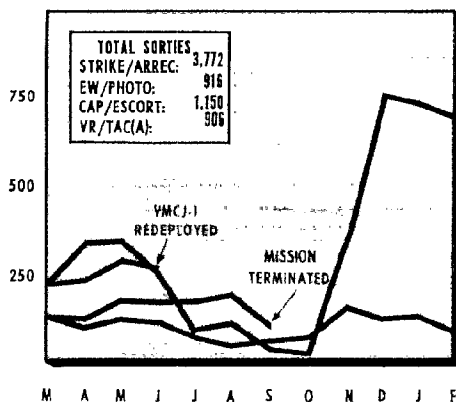
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sorties--152 in all--for escort of US Air Force B-52s interdicting supply routes in Laos and 54 barrier combat air patrol (BARCAP) sorties over the Gulf of Tonkin for the US Navy accounted for the remainder of the F-4B sorties flown. Supporting many of these flights and others, Marine KC-130F tanker refuelers flew 93 sorties in conjunction with BARCAP and other out-of-country operations. Two strike sorties were flown by the TA-4Fs from H&MS-11 to round out the MAG-11 total for the period.

Like the helicopters, 1st Wing attack aircraft participated in LAM SON 719; 151 ordnance-delivering sorties were flown between 11 and 28 February against targets on or near the Ho Chi Minh

MARINE OUT-OF-COUNTRY AIR OPERATIONS



Trail and enemy forces confronting ARVN units. Nine of these were controlled by a Marine air support radar team (ASRT) moved to Khe Sanh to fill the need for precision, radar-controlled bombing by Marine, Navy, and Air Force planes. The ASRT--mobile by virtue of portable equipment designed for use in amphibious operations--had been located at Quang Tri. Forty-eight hours after being heli-lifted from Quang Tri by MAG-16 helicopters, its AN/TPQ-10

radar was guiding planes to provide much needed air support for the RVNAF in Laos. Since becoming operational at Khe Sanh on 23 February, 37 missions (some with more than one aircraft) in support of LAM SON 719 were controlled.

Southeast Asia Tactical Data System Interface

Marine Air Control Squadron (MACS)-4 was slated to stand down in mid-January for redeployment

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to CONUS, even though it was providing equipment still considered vital to US Air Force and Navy air operations in Indochina. As planned, the Squadron ceased operations, but not before establishing a small detachment to provide an interface between Air Force and Navy tactical data systems used to keep track of the air situation and direct antiair warfare. By end-February, MACS-4 had redeployed, leaving the detachment of 20 men to continue operating a Marine Tactical Data Communication Central (TDCC).

MACS-4 relieved MACS-7 in RVN during June 1967, the latter rotating to CONUS. Both squadrons, like MACS-9 which preceded MACS-7, provided air surveillance and control of aircraft and surface to air missiles for antiair warfare in support of 1st Wing. Unlike its predecessors, however, MACS-4 was equipped with the Marine Tactical Data System (MTDS)--an advanced, mobile, land-based, semiautomatic tactical air defense and air control capability. This system, making full use of computers to rapidly process great volumes of information, enabled MACS-4 to establish a digital interface with US Seventh Fleet units. Becoming fully operational in July 1967, MACS-4 registered two historic firsts--combat employment of a mobile, land-based tactical data system and full integration in combat of MTDS with the Navy's shipboard and airborne tactical data systems, NTDS and ATDS respectively. Essentially, these and US Air Force tactical data systems function to detect, identify, and control the intercept of hostile aircraft and to provide navigational assistance to friendly planes. Soon after becoming operational atop Monkey Mountain near Danang, the unique capabilities of MACS-4 and MTDS were recognized and assistance was provided for all four US services and other Free World forces.

MTDS, developed by the Marine Corps specifically for amphibious warfare, was designed to be fully compatible with other service and NATO systems, as well as NTDS and ATDS. Comprised of three

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functional equipment groupings, MTDS is but one aspect of the complete tactical air control system organic to 1st Marine Aircraft Wing. The three equipment groupings of MTDS are the Tactical Air Operations Central (TAOC) within MACS; a Tactical Air Command Central (TACC) at Wing headquarters; and a Tactical Data Communication Central for use by both the TAOC and TACC. This equipment consists primarily of digital computers, information processors, display systems, and digital communication links capable of extremely high-speed processing, thus allowing sufficient time to evaluate the air threat and take appropriate action. Routinely, aircraft are acquired and tracked by radar automatically, but identified and classified semiautomatically.

In light of the threat from North Vietnamese aircraft (which still prevails) and the need for US Air Force, Marine, and Navy aviation elements to work closely together in Indochina, advantages of integrating the three services' tactical data systems were obvious. However, there were incompatibilities between the Navy ATDS/NTDS and the Air Force tactical data system (operated from Danang and Udorn, Thailand) which had to be overcome. The Marine TDCC had been designed with enough flexibility not only to receive and transmit but also to clearly understand data messages from Air Force as well as Navy systems. Thus it was that the TDCC became the Southeast Asia Tactical Data System Interface which made full integration of MTDS, ATDS/NTDS, and the Air Force tactical data system possible. After extensive testing, the interface, which consists largely of software and computer programs, was formally designated in August 1969. The relationship of the interface with the four systems at that time is diagrammed on the following page.

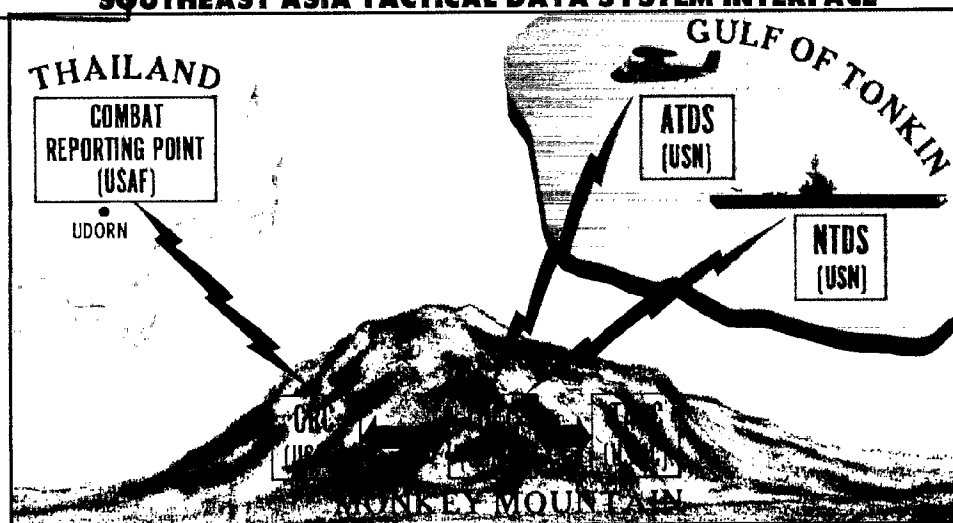
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SOUTHEAST ASIA TACTICAL DATA SYSTEM INTERFACE



Commencing late in 1970 and continuing through mid-January this year, several steps were taken to assure continuous, trouble-free provision of the interface. Coordination with Air Force elements was facilitated by collocating the remaining TDCC detachment with the Air Force Combat Reporting Center (CRC) on Monkey Mountain. New equipment was installed at this site to reduce future maintenance requirements. The old TDCC provided continuous support until the new one was in operation on 13 January.

Aircraft Losses

Four MAG-16 helicopters were lost to direct enemy action during January and February. On 21 January, a CH-46D supplying an element of 1st Marines in UPSHUR STREAM was hit and crashed four miles northeast of Thuong Duc. On 1 February, while making a low pass to identify a landing zone (LZ), a UH-1E was struck and downed by small arms fire six miles southeast of Danang. Four days later, a CH-46D was destroyed, as it approached a medevac pick-up point ten miles south of Danang. The fourth, a CH-53D supporting LAM SON 719, was lost while hovering close to

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the ground to pick up an external load on 23 February; mortar and machine gun fire struck and destroyed the aircraft in the LZ.

Distribution of Aircraft

All aircraft remained located either at Danang Air Base (MAG-11) or Marble Mountain Air Facility (MAG-16). The following chart displays squadron assets on hand, in progressive aircraft rework (PAR), and in damage repair status as of 28 February.

STATUS OF 1ST WING AIRCRAFT: 28 FEBRUARY 1971

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	4	1	0	0	3
VMA-311	A-4E	26	2	0	0	24
VMFA-115	F-4B	25	5	4	0	16
VMA(AW)-225	A-6A	13	1	0	0	12
YMO-2	OY-10A	20	2	1	0	17
TOTAL FIXED WING		91	11	6	0	74
MAG-16						
H&MS-16	CH-46D	0	0	0	0	0
HML-167	UH-1E	35	6	1	0	28
HML-367	AH-1G/J	27	0	1	0	26
HMM-262	CH-46D	25	3	1	0	21
HMM-263	CH-46D	29	7	2	0	20
HMM-364	CH-46D	0	0	0	0	0
HMH-463	CH-53D	17	0	1	0	16
TOTAL HELICOPTERS		133	16	6	0	111

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LOGISTICS

The first two months of 1971 witnessed the continued acceleration of III MAF logistic activity begun last year, resulting from uninterrupted provision of supply, maintenance, medical, transportation, and service support while at the same time carrying out embarkation, redistribution, retrograde, and redeployments. Concurrently, Marine combat support and service support units were diminished in proportion to combat and headquarters elements, thus increasing tasks for those remaining.

KEYSTONE ROBIN CHARLIE commenced on 1 January; however, III MAF participation until the end of February was limited to stand down and preparation for embarkation, excepting Marine Air Control Squadron-4 which departed on 1 February. Redeployments under ROBIN CHARLIE are scheduled for completion by the end of April.

In another logistic highlight, Operation DEWEY CANYON II/LAM SON 719 received limited III MAF motor transport and shore party support during February as well as the extensive air participation described in the preceding chapter.

Also, the beginning months of 1971 brought modification of in-country USMC research and development endeavor. While the program (named SPEED) for expedited research and development of items needed in RVN finished several remaining projects before termination, fruits of other normal research and development work underwent in-country combat evaluation. The AH-1J armed helicopter arrived for tests shortly after evaluation of the laser-guided bomb and laser target designation system.

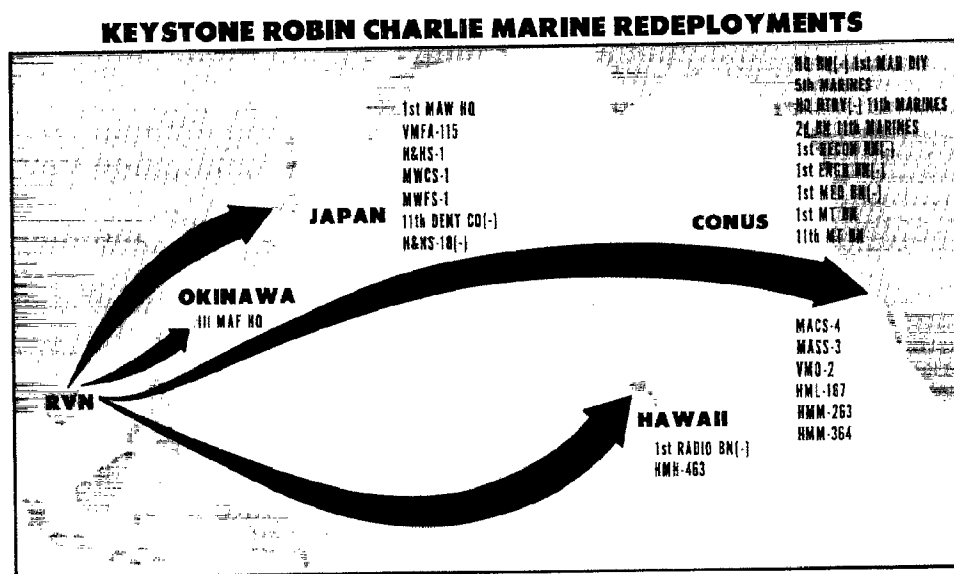
KEYSTONE ROBIN CHARLIE

Having drawn a bye during the fifth increment of the KEYSTONE series of redeployments, III MAF and

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Total strength upon completion of ROBIN CHARLIE is programed at 12,800--the smallest Marine force in RVN in six years. Not included is this number are Sub-Unit 1, 1st Air and Naval Gunfire Liaison Company (ANGLICO) under operational control of MACV or USMC advisors with the Vietnamese Marine Corps.

III MAF units redeploying as part of the sixth increment are shown on the following chart, along with their destinations.



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Conceptually, USMC aspects of KEYSTONE ROBIN CHARLIE are to be accomplished by twelve embarkation units--administrative organizations for embarkation and movement. The first such unit departed Danang on 1 February on board the USS Alamo (LSD-33) with 33 personnel, 5,400 square feet of vehicles (a measurement of occupied deck space), and 6,000 cubic feet of cargo, all belonging to Marine Air Control Squadron-4. Additionally, 6,000 square feet of vehicles and 300 measurement tons of cargo were retrograded to CONUS on the Alamo, making maximum use of available space not required by Embarkation Unit-1. The Alamo completed off-loading at Long Beach, California on 22 February.

In another employment of opportune Pacific Fleet shipping, the USS Saint Louis (LKA-116) was loaded at Danang harbor on 1 February with 6,400 square feet of vehicles and 60 measurement tons of materiel for retrograde to Okinawa and Japan. Returning on the 25th, the Saint Louis took on a second load of 5,500 square feet of vehicles and 375 measurement tons of cargo for shipment to Okinawa. On the 26th, the USS Juneau (LPD-10) embarked 18 CH-46Ds from MAG-16 and additional retrograde cargo destined for Okinawa.

In all, these lifts of retrograde vehicles and cargo--accomplished by amphibious shipping already on the scene for operational requirements but temporarily uncommitted or only partially filled--have resulted in a considerable savings of transportation costs. Using commercial hulls, the aforementioned shipments would have required more than \$150,000.

Redistribution/Retrograde of Materiel

The progression of incremental redeployment continued to produce materiel excesses due to decrement of required stock levels and maintenance exchange item pools, unit deactivations in-country, or turn-in of RVN-peculiar allowances. To obviate retrograde and resupply shipping costs where possible,

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extensive screening and redistribution programs have been developed to meet in-country requirements with local excess assets. III MAF has been an active participant, taking every opportunity to fill in-country Free World force requirements and USMC needs in WestPac before retrograding equipment and supplies to MidPac and CONUS. However, another factor increasingly evident in USMC redistribution and retrograde planning has been acceleration of those actions necessary to reconstitute Fleet Marine Force expeditionary readiness within Pacific Command.

By far the largest block of materiel requiring redistribution was the FLC operating stock excesses. In the following order, these items are applied to USMC mount-out/mount-out augmentation requirements (blocks of supplies for use during the first 60 days of an amphibious operation), deficiencies in Fleet Marine Force WestPac and EastPac operating stocks (day-to-day supplies as opposed to MO/MOA materiel), and needs identified in the Pacific Command Utilization and Redistribution Agency, before filling USMC requirements elsewhere.

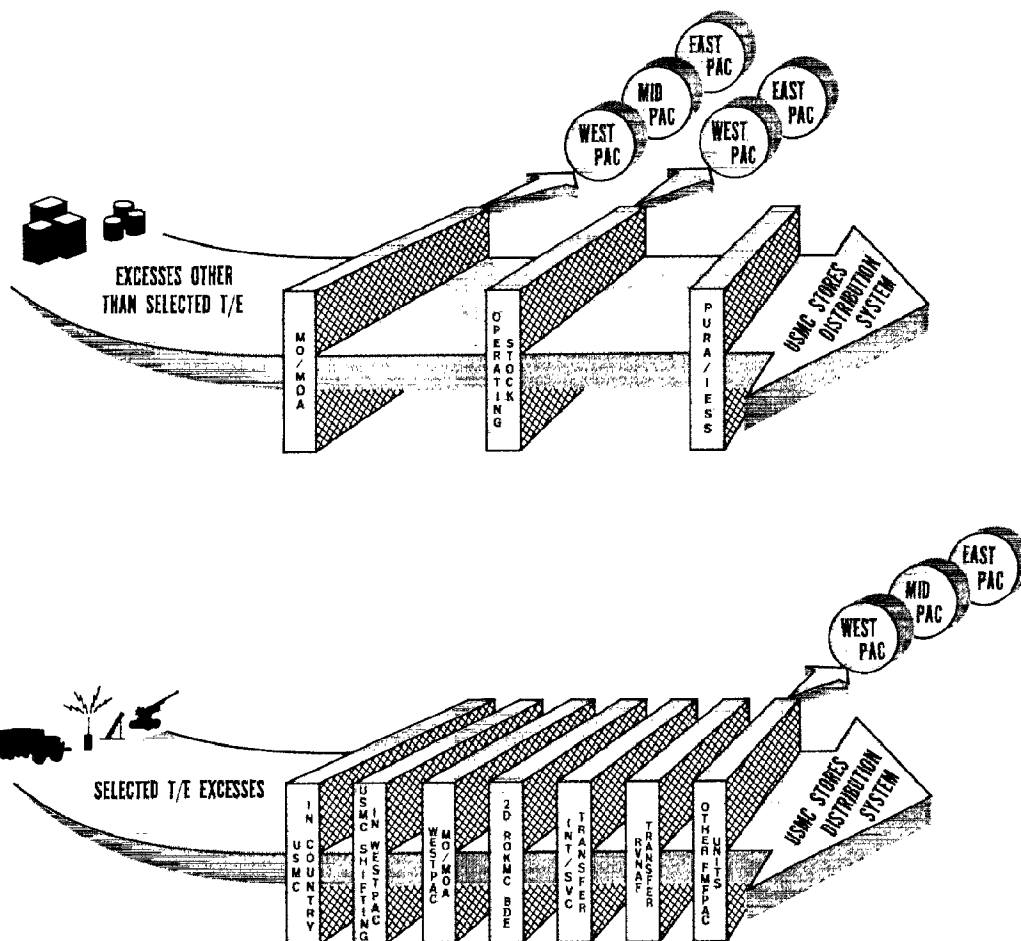
Selected T/E items--materiel necessary for a unit's mission and listed in its Table of Equipment (T/E)--are redistributed separately under III MAF control. On 9 February, the priority for receiving these items was adjusted in favor of mount-out/mount-out augmentation blocks in WestPac. In another move designed to build up these stockages, III MAF began sifting through all T/E assets, normal and RVN-peculiar, of Marine units redeploying to locales outside the western Pacific area prior to 15 March--such assets to be applied to WestPac mount-out requirements. These items are to be shipped to 3d Force Service Regiment on Okinawa upon unit stand down. Following this mount-out screen, these categories of equipment will be screened against WestPac mount-out augmentation needs. The In-country T/E Screen for Mount-out/Mount-out Augmentation is similar to Project 805 (a program transferring US equipment to the RVNAF) and the Interservice Transfer

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of Southeast Asia Principal Items of Equipment Program in that it screens organizational equipment in addition to excesses. The screening priorities in effect at the end of February are shown below.

III MAF EXCESS REDISTRIBUTION SCREEN: 1971



Disposal of excess real estate kept pace with III MAF redeployment, as 3d Battalion, 5th Marines stood down, turning over Ross combat base to the GVN

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on 15 February. The same day at Danang, the extensive recreation facilities developed by III MAF at Freedom Hill were turned over to XXIV Corps. The only other facility of significance transferred was the MACS-4 installation on Monkey Mountain, occupied by the US Navy on 1 February following stand down of the 1st Wing Tactical Air Operations Center.

An examination of WestPac Marine installations outside RVN pointed up a deficiency of warehousing; to fill this need, III MAF requested authority to disassemble and retrograde 26 Butler buildings (prefabricated sheet metal structures of varying size) from RVN. On the first of February, MACV approved this request. Inasmuch as the approximate cost of a Butler building is \$8,200, this retrograde project will result in nearly a quarter million dollars saved.

Engineer Operations

1971 brought a continuation of close combat and deliberate engineer support which III MAF has consistently enjoyed throughout the RVN conflict. Countering persistent enemy disruptive ploys, 1st Division engineer elements swept over 2,100 miles of primary and secondary roads in Quang Nam and uncovered 31 explosive devices. These efforts were reinforced by mine and booby trap detection skills within maneuver units, developed by the 1st Engineer Battalion resident mine warfare school and mobile contact team employed to train small units--infantry squads and platoons, combined action units, CUPP teams, and resupply convoys--most susceptible to surprise-firing devices.

Horizontal construction (roads, airfields, bridges) effort was dominated by the upgrade of Route 4 to the west of Dai Loc during the two-month period, as well as providing rock and fill to Naval Mobile Construction Battalion-3 elements improving sections of Route 4 between Dai Loc and Dien Ban. During February, work began on permanent repairs to the 2d Republic of Korea Marine Corps Brigade main supply

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Route (Chung Yong Road), upgrading temporary repairs to washouts caused by the October-November 1970 floods.

Other deliberate support included improvement of electrical systems at Baldy, Ross, and Hill 65, as well as electrical and plumbing repairs to the World Relief Organization Children's Hospital located near Force Logistic Command. The move of a 1st Wing air support radar team from Quang Tri to Khe Sanh in February required construction of bunker facilities at the latter by Marine engineers. However, the most significant project was dismantlement of Butler buildings in preparation for retrograde. On 3 February, Company A, 7th Engineer Battalion commenced disassembly and palletizing, and by the end of the month, 12 were ready for shipment; of these, ten were shipped to Okinawa.

On 28 February, 1st Engineer Battalion (less Company A) stood down from operations after more than five years of providing close combat engineer support to its parent organization, 1st Marine Division. Thus, at the end of February, operational USMC engineer assets had been reduced to Company A, 1st Engineers and Company A, 7th Engineers (a force unit capable of deliberate construction support). Also remaining, Company C, 1st Shore Party Battalion performed occasional light engineering tasks during this period as well as providing helicopter support and landing zone control teams to 1st Division maneuver units.

Motor Transport Operations

In January, motor transport resupply convoys moved some 4,600 tons of cargo to locations throughout Quang Nam, followed by 5,300 tons transported in February--both figures down to approximately half the 1970 monthly average of 9,930 tons but entirely consistent with the continuing decline of in-country USMC strength. Total tonnages, including administrative and redeployment-associated moves as well as resupply, were 51,000 tons in January and 49,000 tons in February.

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Of interest was III MAF motor transport participation in Operation DEWEY CANYON II in northern MR 1. On 6 February, XXIV Corps requested USMC motor transport, fuel storage, and refueling assets to help sustain helicopter and motor vehicle resupply to US Army and ARVN units operating along the trace of Route 9 south of the DMZ. At dawn the next morning, elements of Company C, 11th Motor Transport Battalion--reinforced with a 1st Shore Party detachment, forklifts, refuelers, and 60-ton low-bed trucks from 1st Wing and FLC--rolled out of Danang for Vandegrift combat base in support of the US Army 39th Transportation Battalion. Two days later, two Marine 5,000-gallon fuel trucks moved north to join Company C. On 15 February, Company C and its attached elements terminated support operations and returned to Quang Nam, after having transported an estimated 100,000 tons of materiel and traveled a cumulative distance of some 30,000 miles. Following their departure, the 1st Shore Party detachment and eleven USMC forklifts remained to provide logistic assistance from Khe Sanh combat base in support of LAM SON 719.

Special Procedures for Expediting Equipment Development

US Marine forces in RVN have generated occasional requirements for items, unique to local circumstances, which were not immediately available. Some of these needs have been met through the normal research, development, testing, and evaluation cycle; however, others were of a more urgent nature, requiring the cycle (including procurement and delivery) be accomplished within a compressed time frame.

To that end in November 1968, the SPEED (Special Procedures for Expediting Equipment Development) program was established to provide a flexible and responsive process for identifying and validating short term operational requirements of Marine forces in Southeast Asia, followed by expedited procurement and delivery to the field. The focus was on hardware rather than tactics, techniques, or doctrine, which are under continual scrutiny through other methods.

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SPEED was generally restricted to projects which could be completed within 18 months; others requiring longer cycles were conducted through normal research and development channels.

The procedure to obtain an item through the SPEED program commenced with message transmission of the requirement by III MAF to FMFPac headquarters, identifying the capability desired. If concurred in there, the requirement was transmitted to Headquarters, Marine Corps where it was considered in respect to ongoing developmental programs for validation of priority. If it was apparent that fruition within 18 months was not possible, the project was relegated to normal development procedures. If approved, necessary financial, technical, and managerial support was set in motion, and the project was forwarded to the Marine Corps Development and Education Command (MCDEC). At MCDEC, a preliminary investigation to determine feasible, rapid solutions furnished recommendations to Headquarters, Marine Corps within a week following receipt. Then, when directed by Headquarters, Marine Corps, MCDEC accomplished or coordinated the necessary developmental activity, testing and evaluating the resultant product and periodically apprising interested commands of progress.

Successful SPEED projects have included modification of existing equipment for special purposes as well as development of new hardware. Several examples are the Integrated Observation Device; Radar Beacon, Forward Air Controller (RABFAC); and rapid fire grenade launcher. The IOD was produced by combining several existing items into one system; production and initial delivery spanned approximately six months. The RABFAC was a prototype development which, while not fully satisfying all USMC long-term performance criteria, substantially exceeded the capabilities of any equipment available at the time. SPEED permitted funding and procurement of RABFAC for use in RVN despite some shortcomings. The rapid fire grenade launcher (XM-174) was manufactured,

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tested, modified, and fielded entirely under SPEED aegis. Obviously, these three projects possess potential far beyond the Southeast Asia environment.

A year ago in March, III MAF headquarters terminated its research and development function, and authority to initiate SPEED projects was delegated to 1st Division and 1st Wing. In the months that followed, continuing redeployment of III MAF forces and relative combat quiescence throughout Quang Nam precipitated a complete review of ongoing research and development efforts involving USMC units in RVN. On 30 January, Headquarters, Marine Corps promulgated guidance concerning disposition of the remaining SPEED projects, cancelling those with limited promise and relegating others to normal research and development channels, while allowing completion of still others nearing conclusion.

Ordnance

During the two-month period, both ground and air munition stock levels were adequate to support in-country operations. Air munition stockages are now computed on typical load figures for aircraft on hand for 1,300 attack sorties each month, taking into consideration the progressive redeployment of aircraft squadrons. In January, disposition instructions were requested for some 100 different items of aviation ordnance no longer required due to the continuing reduction of USMC aviation assets. Additionally, 2,800 Zuni (5-inch) rockets damaged in transit from Chu Lai to Danang last fall were retrograded to the United States for serviceability inspection. Also, 1,500 cluster bomb units (CBU-49) were turned over to in-country US Air Force units, being no longer required by 1st Wing.

-LTDS and LGB Evaluations

On 31 January, in-country USMC combat evaluation of the laser target designation system (LTDS) and the laser-guided bomb (LGB) was completed, with results reflecting considerable promise.

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The LTDS is a system developed to enhance the accuracy of the attack aircraft-forward air controller team, the aircraft in this instance being a specially modified A-4E. The forward air controller (FAC) is equipped with a laser target designator--an easily carried, quiet, battery powered, electro-optical device--which is used to illuminate the target with invisible laser energy. Used conjunctively, the A-4E has a search set installed within its nose cone; this device seeks and detects reflected laser energy. Displays and controls within the cockpit enable the pilot to bomb the illuminated target with pinpoint accuracy, using either conventional ordnance or laser-guided bombs.

Laser-guided bombs (500-pound and 2,000-pound general purpose bombs were used in the tests) are conventional free-fall munitions equipped with a special nose assembly which detects reflected laser energy and guides the bomb--within limits--to the target. The laser beam, which designates the target for the searcher-equipped A-4E and assists the pilot to maneuver for accurate delivery, can also direct an LGB to the target. Using LGBs, any attack aircraft can be employed in this role, providing the bombs are dropped within the parameters for acquiring the reflected energy and accurately guiding the weapon to the illuminated target. LGB tests were conducted employing the A-6A (non-searcher modified) in conjunction with the RABFAC, a portable radar beacon used by forward air controllers to guide aircraft on bombing runs. When used in tandem with the controller's laser target designator, the RABFAC technique ensured that the aircraft dropped ordnance within the required envelope for the LGB nose assembly to acquire and guide.

Results during the tests of the LTDS and LGB were significant; employing the lightweight target designator, targets at ranges in excess of 4,000 yards from the FAC were designated, and LTDS-configured A-4Es acquired illuminated targets at ranges

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up to ten miles. Although poor weather affected the capability of the FAC to locate and illuminate targets and the LTDS aircraft or LGB to acquire designated targets, the systems displayed considerable potential for very accurate and relatively low cost means to enhance air support.

Aviation Logistics

On 17 February, a detachment of HML-367 arrived at Danang with four AH-1J helicopters for combat evaluation. In preparation for the evaluation schedule (programed to commence in March), 250 man-hours of maintenance readied the aircraft for flight testing, following their partial dismantlement for air shipment to RVN. Between the first test flight on 20 February and end-month, over 43 training flight hours had been accumulated.

The first two months of 1971 brought enhanced operational readiness in nearly all categories of 1st Wing aircraft, as shown on the following graphs. For the first time in a year, A-6A readiness exceeded the established goal and held steady at 67 percent during January and February. Responding to management actions directed toward circumventing the constant speed drive problem, A-4E readiness rose in January and again in February. The only significant drop was in UH-1E readiness during February, when eight aircraft were grounded for programed maintenance--a procedure requiring about five days for each helicopter. Additionally, HML-167, organized to support 24 aircraft, had been providing maintenance for 28 UH-1Es, increasing repair time due to over-commitment of aircraft maintenance personnel. Continuing a consistent record of aircraft readiness, the CH-46D held steady at 82 percent during January and February, well above the established goal.

Not only have most 1st Wing units maintained aircraft readiness postures at or well above existing standards during this period, but also they have continued to exceed the prescribed utilization rates--

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surging maintenance and operational effort to provide the maximum offensive, antiair, reconnaissance, and assault support to Free World ground units. For example, average utilization of all 1st Wing aircraft was 148.3 percent of the prescribed rate in February; for the OV-10A, utilization was 175 percent of the established norm. While this heightened performance has been necessitated by the exigencies of warfare, it has placed stresses on out-of-country Marine aviation units. However, as Marines redeploy from RVN to locations throughout Pacific Command, these strains are being alleviated, thus assuring the highest possible standards of readiness for aviation units throughout the Marine Corps.

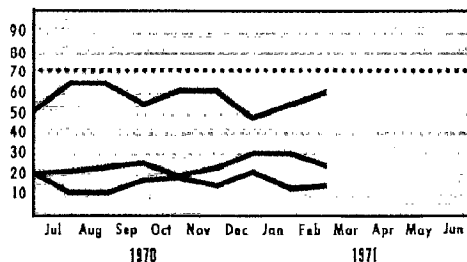
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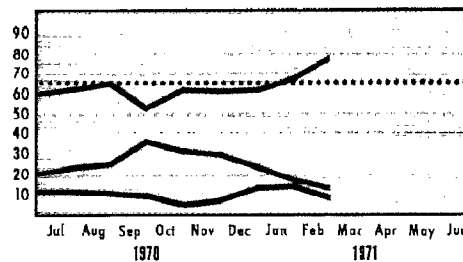
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NORS/NORM RATES - 1ST MARINE AIRCRAFT WING

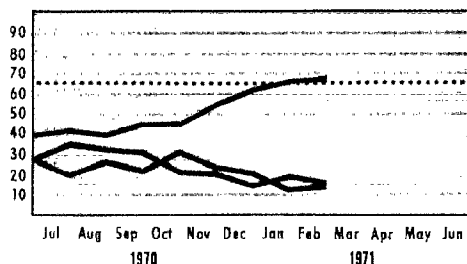
A-4E (ATTACK)



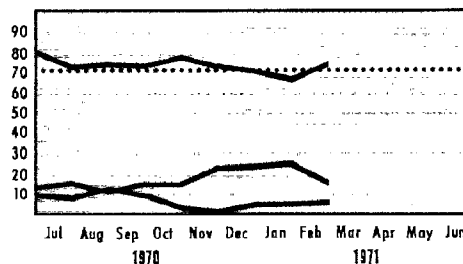
F-4B (FIGHTER-ATTACK)



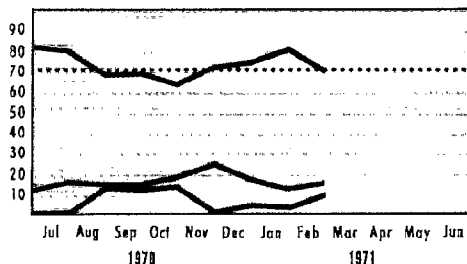
A-6A (ATTACK)



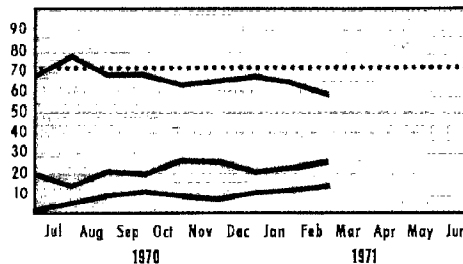
OY-10A (RECONNAISSANCE)



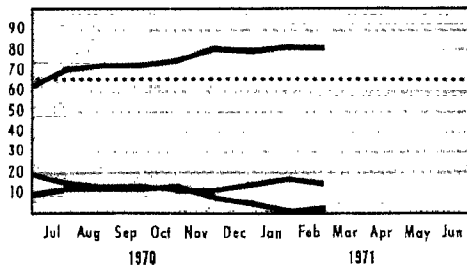
AH-1G (HELICOPTER)



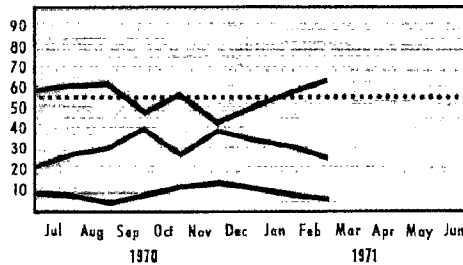
UH-1E (HELICOPTER)



CH-46D (HELICOPTER)



CH-53D (HELICOPTER)



READINESS OBJECTIVE

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