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OPERATIONS OF U.S. MARINE FORCES

VIETNAM

AUGUST 1970

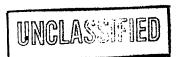


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FLEET MARINE FORCE, PACIFIC







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

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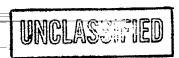
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SUMMARY

Throughout August, while remaining 1st Marine Division and Combined Action Force units conducted patrols, ambushes, and small unit operations at approximately the same rate as in preceding months, there was less contact with the enemy. Even in western Quang Nam, where 1st Reconnaissance Battalion teams sought NVA/VC activity, there were fewer sightings, engagements, and consequently, enemy killed. Similarly, activations of seismic intrusion devices and other unattended ground sensors, used extensively by III MAF to detect enemy presence, were less frequent. Operations PICKENS FOREST (ending late in the month) and LYON VALLEY (a nine-day midmonth effort) also reflected enemy avoidance of contact. Nevertheless, III MAF Marines killed 305 NVA/VC and captured 25, including results from combined action platoons.

Further deactivations of Combined Action Force units reduced the Force to one combined action group employed in Quang Nam. Operations of this group, territorial forces, other ARVN elements, and Combined Unit Pacification Program units, coupled with GVN resettlement projects and Marine civic action, continued pacification and community development progress.

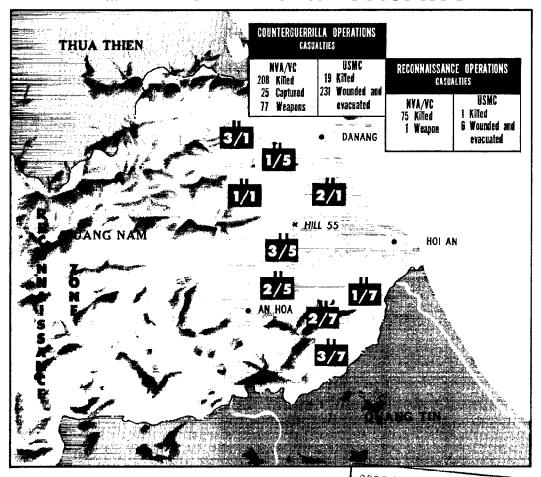
Much of III MAF attention was focused on activities related to fourth increment redeployments. By end-month, numerous combat support and service units had left RVN, mostly by 7th Fleet amphibious shipping for locations in WestPac, MidPac, and CONUS. In addition to decreased combat activity and a revision of sortie allocations, the shift of some 1st Marine Aircraft Wing units out of Vietnam resulted in reduced helicopter and fixed wing flight operations. Also related to redeployments were two logistic programs which proceeded smoothly in August. One redistributed excess materiel to Marine and other Free World forces to achieve economic usage of assets. The other, involving transfer of equipment to the RVNAF, furthered US efforts to modernize and equip Vietnamese forces.



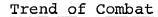
COMBAT OPERATIONS

The general decline in combat prevailing since the first of the year in Quang Nam continued through August. This trend of subsiding action is readily evident when results of III MAF combat operations are examined; for instance, analysis of reconnaissance operations shows a steady decrease in the size and number of enemy formations sighted and/or engaged. Apparently unprepared to upset the status quo in the lowlands, enemy forces remained dispersed in retreats, refraining from major confrontation. Even the allied summer campaign thrusts, employing minimum forces extended to the west, did not draw Front 4 elements into battle. August results and end-month Marine infantry locations are displayed on the following map.

MARINE OPERATIONS: AUGUST 1970



1



Results of III MAF operations during the first eight months of 1970, on the whole, mirror diminished intensity of combat throughout MR 1. The general slowdown is attributable mostly to enemy quiescence—marked foremost by absence from the battlefield of large NVA formations. Defeats in 1968 and 1969 prompted withdrawal of most regular enemy units to hinterland and cross-border regions late last year to replace losses and refit, temporarily shifting more of the insurgency burden to the Viet Cong. Meanwhile, despite continuing US troop redeployments, Free World prosecution of the war has steadily increased—for the most part, due to increased independent operations by more capable, better equipped RVN forces.

The trend toward lessened combat action is revealed by comparing the 1970 III MAF counterguerrilla campaign with that of 1969. While more USMC small unit operations have been employed, casualties and contacts have fallen off considerably. Marine patrols, ambushes, and company-size operations have increased by 21 percent (11,864 per month versus 9,777 per month last year), as small unit activities supplanted battalion and larger size unit operations characteristic of 1969. At the same time, contacts declined to 78 percent of the previous year's rate.

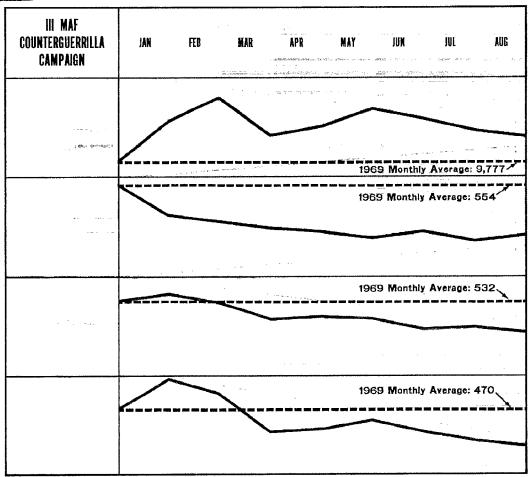
In 1969, the counterguerrilla effort netted 5,643 enemy; thus far in 1970, 3,049 NVA/VC have been killed. The current rate is approximately 80 percent of last year's. Expressed in other terms, the average number of enemy killed daily has dropped from 15.5 in 1969 to 14.4 in 1970. Comparing the same periods, USMC casualties (killed and evacuated wounded) in 1970 occurred at 52 percent of the 1969 rate.

These statistical relationships are depicted graphically on the following page.





COMBAT TRENDS: 1970



Reconnaissance Operations

In Quang Nam, with major enemy forces disposed west of the lowlands, surveillance to reveal their intentions, movements, and base/staging locations is essential to III MAF. Although a great deal of information is collected from aerial detection measures—airborne personnel detectors, infrared imagery, radar, photography, and visual observation—confirmation often



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is required. Ground reconnaissance patrols fulfilling this need are specially trained to perform under arduous conditions. Generally, these six-man patrols operate for six days remote from any supply source. This necessitates transporting ammunition, food, water, and equipment sufficient for the entire periodusually a 70-pound load per man. Carrying this weight over rugged terrain with dense foliage, sometimes at a pace necessary to outdistance pursuing enemy, requires considerable strength and stamina.

Early this year, reconnaissance operations revealed that the enemy was using the mountains to good advantage. He had learned that camps and havens could be located within Marine artillery range as long as they were on reverse slopes where artillery is less effective. Additionally, the NVA/VC had learned to locate in dense vegetation below topographic and military crests, where allied forces often did not search. Marine reconnaissance teams countered these enemy practices by relying more on 1st Wing aircraft to strike defiladed base camps and by physically hunting the enemy below military crests. More than once, Marines did not discover camps until they burst into them out of the foliage. In such cases, the preplanned and practiced course of action was aggressive, rapid advance through the site, destroying supplies, blowing up bunkers, and killing with grenades and a high volume of rifle fire. In the resulting confusion and havoc, patrols could evade to safe distances and direct fixed wing strikes or artillery attacks against the positions.

During March, the enemy commenced a counter-reconnaissance program, employing 15 to 25-man units to close fast on insertion landing zones (LZ), surround patrols, and attempt to destroy them. These enemy soldiers wore clothing and equipment similar to the patrols', used camouflage skin paint, and carried M-16 rifles to deceive the reconnaissance teams. To counter, reconnaissance commanders employed a series of decoy landings, inserted into some LZs without preparatory fires while bombarding others, and used small



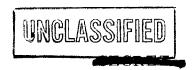


landing zones not normally considered adequate. Lacking troops to cover all possible LZs, the enemy was unable to thwart reconnaissance activity as anticipated. Consequently, when patrols land, the enemy units seek to locate them and monitor their activity, avoiding contact unless teams approach a camp or other find.

Reconnaissance patrols generally monitor avenues habitually used by the enemy and seek to locate troop concentrations, camps, and supply points. As hostile targets are sighted, they are attacked by observed supporting arms missions; however, when team safety is endangered by friendly fire, moving units are targeted for later unobserved missions, and fixed installations are referenced for future ground, air, and/or artillery coverage. Small arms confrontations, while avoided, often compromise patrol missions, and emergency extractions become necessary—recently there have been about 20 such incidents per month.

As soon as trouble develops, a team signals an OV-10A to the area, where the pilot's first priority is to provide initial suppressive fire after locating the ground unit (normally through radio contact, mirror reflections, and sighting of bright-colored panels). Soon on the scene are two AH-1Gs followed by two CH-46D helicopters. The Cobras fire machine guns and 40mm grenades to within 25 yards of the patrol, while a hovering CH-46D drops a SPIE (special patrol insertion/extraction) line which each man hooks onto a special harness worn for just such emergencies. When the patrol signals it is hooked up, the helicopter lifts straight up and flys away, trailing the patrol in the slip stream below.

The 1st Reconnaissance Battalion, earlier this year, implemented a series of three-week programs to train ARVN soldiers and ROK Marines in reconnaissance techniques and associated combat operation center procedures. Courses were concluded by a four-day field exercise on Monkey Mountain northeast of Danang. As ARVN reconnaissance personnel were aggressive and eager for long-range patrolling, they were phased into

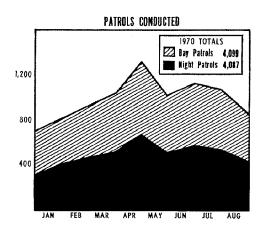


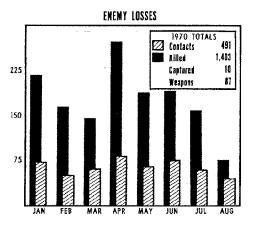


USMC patrol operations. At first, one ARVN accompanied each six-man patrol; now however, three ARVN and four Marines are employed as a team, as the Vietnamese soldiers proved to be excellent.

Continued success of reconnaissance operations has had debilitating effects upon enemy activity along the western fringe of the III MAF operations area, thus partially accounting for decreases in sightings, contacts, and enemy losses. August registered only 42 reconnaissance engagements, tallying 75 NVA/VC killed--the smallest number since February 1969. The accompanying charts compare this month's reconnaissance activity and results with totals since January.

RECONNAISSANCE OPERATIONS: JAN - AUG 1970





The following actions highlighted contact during August. At midday on the 8th, patrol CLAY PIPE discovered a camp in the Que Son mountains eight miles southeast of An Hoa and attacked the defenders, killing nine. Sustaining one casualty, the patrol moved to a nearby LZ and was extracted, during which OV-10A aerial rockets detonated an ammunition cache in the camp. The next day, four miles north, a platoon from T89th Sapper Battalion attacked team PAL JOEY, manning the Integrated Observation Device (IOD) position on Hill 119. The unit repulsed the frontal assault, accounting for five VC killed. Later as the enemy attempted to recover bodies, artillery fire claimed three more.

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Supplementing ground reconnaissance coverage, III MAF continued to employ IODs from six positions, three of which were manned by 1st Reconnaissance Battalion. These devices, in full operation since October 1969, constantly scan areas of known high enemy usage. Precise target data obtainable allows for first-volley hits by artillery fire. By using a xenon searchlight in infrared mode, IOD teams have doubled their night range--further restricting enemy activity. Through August, kills resulting from IOD sightings averaged approximately 22 percent (nearly 2,500 dead) of those credited to 1st Marine Division.

Large Unit Operations

The three summer campaign operations in Quang Nam ended during August. VU NINH 12 met exceptionally light resistance as Vietnamese Rangers and Marines struck beyond Base Area 112--the deepest, independent, large-scale RVNAF penetration of western Quang Nam. At the same time, the 51st ARVN Regiment engaged and neutralized moderate opposition during HUNG QUANG 1/32B in Base Area 127, with final enemy losses totaling some 330 NVA/VC killed.

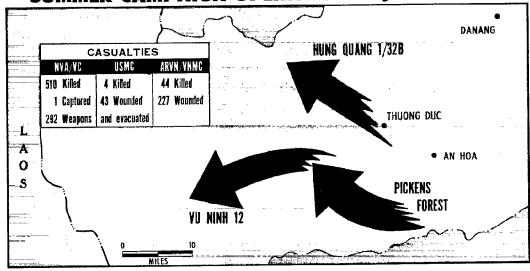
Operation PICKENS FOREST, during early August, remained focused on southeastern Base Area 112, where 2d Battalion, 7th Marines action was light, as most of the enemy appeared to have fled south. On the 9th, the Battalion moved northwest into the VU NINH 12 area, with Marine artillery supporting from Fire Support Base (FSB) Hatchet (nine miles southwest of Thuong Duc), replacing VNMC artillery displaced further west. Through the 24th when PICKENS FOREST ended, 2d Battalion elements continued to search and clear, making but minor contact and some insignificant finds. Final enemy losses were 99 NVA/VC killed, 310 VC and infrastructure (VCI) cadre suspects apprehended, and 52 individual and 11 crew served weapons captured.

The map on the following page pictures August maneuver of the summer campaign operations and the cumulative results.





SUMMER CAMPAIGN OPERATIONS: QUANG NAM



III MAF launched two other battalion-size operations during the month. LYON VALLEY (16-24 August) included a vertical assault by 2d Battalion, 5th Marines into southwestern mountainous approaches to the An Hoa basin. This week-long maneuver, also characterized by light and sporadic contact, resulted in five enemy killed, one taken prisoner, and eight weapons captured. On the 31st, 2d Battalion, 7th Marines was helilifted to LZs in the central Que Son mountains, eight miles east-southeast of An Hoa, to begin Operation IMPERIAL LAKE.

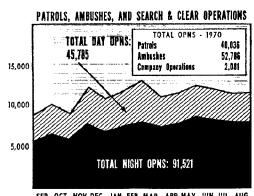
Counterguerrilla Operations

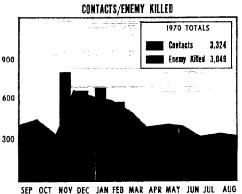
August small unit counterguerrilla activity throughout the Quang Nam lowlands consisted of 11,623 patrols, ambushes, and company operations, of which 8,000 were at night. The effort produced the lowest counterguerrilla contacts and kills since February 1969--312 engagements in which 233 enemy were killed or captured. August statistics are compared with monthly totals since September 1969 in the following graphs.





MARINE SMALL UNIT OPERATIONS: SEP 1969 - AUG 1970





SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

The majority of actions were low-intensity, fleeting engagements against individual VC or small groups. Saturation patrols/ambushes around known enemy-sympathetic villages/hamlets, especially during darkness, continued to be worthwhile, as NVA and main force units were cut off from local VC supporters, while the latter were relatively limited to activity close by home.

One noteworthy operation involved exploitation of a target developed by counterintelligence work. On the 15th, a member of the Quang Nam military proselyting cadre rallied to the GVN. As a result of close liaison, 3d Counterintelligence Team (CIT), III MAF debriefed the rallier who stated he could identify many local VC and VCI personalities residing in La Tho Bac (3), a hamlet in Dien Ban district eight miles west-northwest of Hoi An. The Hoi Chanh further disclosed that the enemy relaxed security between 1200 and 1400 daily when no allied activity was anticipated. Evaluation of the information justified tactical exploitation.

At about 1230 on the 23d, Company A, 5th Marines (a Pacifier patrol) with the 3d CIT conducted a vertical assault and established a cordon around the



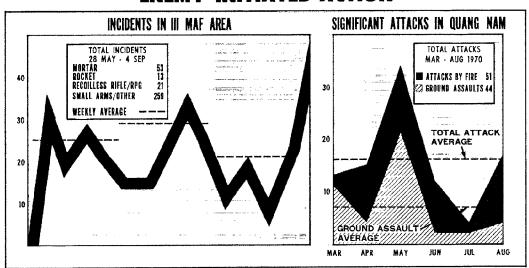
hamlet. During the landing, moderate small arms fire was received, as VC fleeing the area were taken under fire; one was killed and two were wounded and taken captive. By 1800, some 150 adults had been screened, with 25 detained as suspects. Meticulous search of the area uncovered three rifles, a B-40 rocket launcher, numerous grenades, other assorted ammunition, and a quantity of military-interest documents. Later, thorough interrogation resulted in classification of the two wounded and one detainee as main force VC, another as a high ranking province-level VCI, and the remainder as local VCI.

Enemy Activity

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Enemy-initiated activity generally remained low-key and sporadic throughout August. Fewer incidents were registered in the III MAF area of responsibility than during the two previous months; however, they were on the rise at end-month. In Quang Nam as a whole, significant enemy attacks totaled one more than the average for the last six months--four ground assaults and 13 attacks by fire. The graphs below compare August activity with past enemy efforts.

ENEMY-INITIATED ACTION





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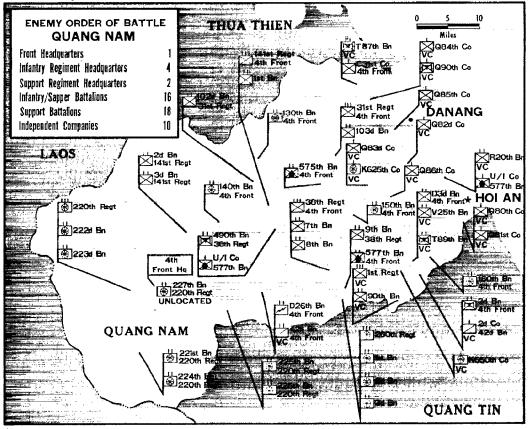
The marked absence of main force commitment to the current phase of activity tends to indicate present enemy strategy in Quang Nam is limited to counterpacification and harassment. Thus, NVA/VC posture in the province remained relatively stable through the month, with only minor changes recorded. Captured documents verified deactivation of the last battalion of the 36th NVA Regiment, with its personnel absorbed by other Front 4 units. The map on the following page displays end-August order of battle holdings within Quang Nam, and the accompanying chart compares province enemy statistics with the rest of MR 1 and the DMZ.



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QUANG NAM ENEMY ORDER OF BATTLE: AUGUST 1970



* Province capital

	TROOPS IN	CONFIRMED		CI	OMBAT	BATTALIO	SUPPORT BATTALIONS			
PROVINCE	COMBAT/SUI	PPORT UNITS	GUERRILLAS	INFA	NTRY	SAF	PER	ROCKET/	OTHERS	
	NYA	YC		NYA	VC	MVA	VC	ARTILLERY		
DMZ	6,600	0	0	2	0	1	0	8	8	
QUANG TRI	14,900	500	1,000	19	0	5	0	1	1	
THUA THIEN	9,900	300	700	16	1	4	0	2	0	
QUANG NAM	7,900	1,600	3,600	9	3	2	2	2	16	
QUANG TIN	1,500	3,000	1,900	0	5	1	2	2	13	
QUANG NGAI	2,500	2,100	3,000	6	3	1	1	1	9	
TOTALS	43,300	7,500	10,200	52	12	14	5	14	47	





III MAF EMPLOYMENT OF SENSORS

One of the most challenging problems Marines recognized early in the Vietnamese war was locating the adversary. Several courses were pursued to solve it. First, much reliance was placed on battle-tested tactics proven in earlier conflicts, namely, visual observation from aircraft and ground vantage points, ambushes along likely enemy routes, and aggressive patrolling and small unit offensive operations. Second, through vigorous civic action programs, rapport was established with the rural populace, who in turn provided intelligence concerning movement and hiding places of Viet Cong. Thirdly, new equipment was developed, proved in the field, and adopted for regular usage. Unattended ground sensors, a family of devices to detect enemy presence and movement, exemplify new hardware which US technology has provided to assist Marines and other forces in Vietnam to find an elusive enemy. Continuous III MAF use of sensors since 1967--over 250 were in operation during August alone--is testimony of their value to Marine operations.

Sensors have their greatest application in non-populated areas where the task is to find small tactical elements or individual enemy who generally prefer to evade and avoid contact except at the time and place of their choosing. An enemy who rarely moved to an objective in large numbers, but infiltrated in small, hard to detect groups had to be found. The circumstance of too few Marines to physically occupy large areas offering excellent concealment served to magnify the problem. Ground sensors and techniques developed to employ them since introduction into MR 1 have been of such value to III MAF, that combat units throughout the Marine Corps have recently added a sensor capability.

Inasmuch as 3d Marine Division operated in northern MR 1 where unattended ground sensors were first employed in RVN, III MAF has had approximately



UNCLASSIFIED three years to develop effective methods to use the devices. Initially, sensors were used as an integral part of an anti-infiltration system (ultimately known as DUEL BLADE), composed of obstacles and manned strong points, roughly paralleling the DMZ. Around Khe Sanh in mid-January 1968, sensors were seeded by aircraft into approaches to the base. By March, some 250 were in use, providing valuable target and intelligence information which contributed to the enemy defeat. Partially as a result of their employment in Khe Sanh, concepts of sensor employment have evolved from the initial barrier usage into something considerably different today. In October 1968, DUEL BLADE was converted from a physical barrier concept to a more flexible program called DUEL BLADE II which incorporated mobile forces, ground sensors, and fixed Third Marine Division provided most of the maneuver units, thus gaining considerable sensor expertise, drawn upon later by other III MAF units to implement follow-on programs. Using new equipment and concepts, a concurrent RVN-wide project (DUFFEL BAG) was designed to use sensors in direct support of ground combat operations as well as monitor activity in enemy base areas and along avenues of approach.

> Since inception of widespread use of sensors, some 25 different models have been employed by Marines, as new or refined equipment has been acquired. Detection logic of sensors is cleverly simple, although inner workings of the devices depend upon sophisticated electronics not only to perceive enemy presence but also to transmit activation signals, store information, or self-destroy. The instruments are designed to react to slight changes in aspects of nearby environment -- most commonly, seismic, acoustic, or magnetic deviations. However, III MAF also has had success with detectors that register minute surface pressure variations and still others which signal interruption of an infrared light beam. Most sensors have a detection radius which varies with the nature of terrain, activator, and/or type of sensor. Depending upon these variables, single-point





devices can detect personnel at a distance of five to 200 yards and vehicles within 15 to 800 yards. In addition to single-point instruments, line sensors are available, each of which cover a 100-yard frontage. In general, sensors are relatively small, portable, battery powered apparatus; easily concealable through camouflage paint or underground installation; and contain a self-destruction feature. The latter, not harmful to personnel, operates when either tampering, end of battery life, or passage of a preset period occurs.

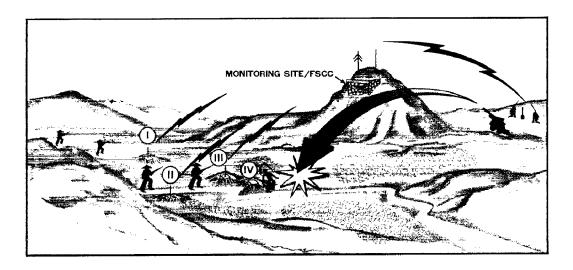
The technical nature and unique employment characteristics of sensors posed a need for special organizations to oversee DUEL BLADE and DUFFLE BAG operations. Accordingly, both 1st and 3d Marine Divisions established ground surveillance sections (GSS); however, each had a different function. 3d Division GSS, created in May 1968, performed all functions attendant to sensor usage--procurement, planning, emplacement, monitoring, and coordinating or requesting supporting arms coverage. On the other hand, the 1st Division GSS, set up in late 1968 with two officers and 12 enlisted men (versus the 3d Division's three and 85), operated primarily in an advisory role assisting the using unit commander with locating sensor and readout sites, training emplacement and monitoring teams, and procuring the instruments. When elements of 3d Division redeployed in October 1969, the GSS remained behind (redesignated as III MAF SCAMP--Sensor Control and Management Platoon) to aid US Army and ARVN units in taking over sensor activities in northern MR 1. Its mission accomplished, III MAF SCAMP was deactivated on 31 December. In March of this year, 1st Division replaced the GSS with a SCAMP to service the ground sensor program in Quang Nam. Unlike its predecessor this organization performs all functions attendant to sensor use.

During August, as in preceding months, the most common use of sensors by 1st Division SCAMP was to detect persons moving on trails. This procedure



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recuires utilizing several sensors in conjunction with each other (known as a string of sensors), usually three seismic intrusion detectors (MINISID) and a magnetic intrusion detector (MAGID). Also necessary is a receiver (Microtale or Portatale) to monitor the sensors from a remote location. These instruments not only receive sensor transmissions, but also provide audible and visual signals of the activation. Normally, the seismic devices are buried up to the base of the antenna 200 yards apart along a trail with the MAGID buried close by one MINISID, since it must share the latter's transmitter. The accompanying diagram of a typical sensor application depicts a string of sensors with an approaching enemy element. The soldier's footsteps cause slight ground vibrations which are detected by MINISID I. Then as the soldiers continue



on, sensors II and III are activated, thus revealing direction and rate of movement and approximate number of persons. Sensor IV (the MAGID), when activated, provides almost guaranteed confirmation that personnel with weapons or other metal military equipment are passing. Misleading indications caused, for example, by vibrations from low-flying aircraft are easily discernable when sensors are used in groups, since moving enemy activate the sensors in succession, whereas a



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plane trips them all at once. As sensors are activated, each sends a unique tone by radio to the monitoring site, which can be located as far as 17 miles away, depending upon the type receiving antenna and terrain configuration. Response at the monitoring station varies with the intended purpose of the particular sensor string--intelligence collection, warning for local security, or target acquisition.

Procedures currently used with sensors in the target acquisition role have been developed to assure rapid response by supporting arms, usually artillery or mortars. This has been accomplished by collocating monitoring sites with fire support coordination centers where possible, obtaining prior civil and military clearance to fire in target areas, and preregistering weapons. Also, whenever practicable, a sensor field is covered by a variety of weapons, thus assuring availability of one or more when needed. A combination of two factors--sensors are normally in somewhat remote areas, and targets are usually detected and engaged at night--allows the enemy to drag their dead away before surveillance can be made. However, during the 12-month period September 1969 through August 1970, 171 NVA/VC have been killed and two prisoners captured as a result of sensors used to detect targets for supporting arms.

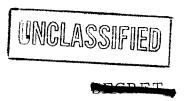
While sensors used for collecting intelligence may be emplaced to monitor likely avenues of approach as they are in the target acquisition role, they generally are employed at a greater distance from maneuver areas. By so doing, the level of enemy activity can be ascertained in and around base areas, along lines of communication (including waterways), and in zones not otherwise regularly patrolled. In the same vein, trends and patterns of NVA/VC activity are determined by analysis of readings from all sensor fields. Examination of 1st Marine Division sensor activations in August provided much insight into enemy operations. During the first week, enemy activity across the sensor fields decreased from the



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previous week, as most enemy movement recorded was near Hill 250 (see following map). These infiltrators were in groups of 9-13 people moving from northeast to southwest, 40 percent late in the evening and and 60 percent between 0400 and 0630. The following week, enemy movement also declined slightly, although another flurry of activity was detected near Hill 250 on the 13th. During the remainder of the month, sensors indicated a trend toward slightly increased movement by small groups of enemy, mostly in areas west of An Hoa and south of Marble Mountain. Such information, when compared with and added to inputs from other sources, contributes significantly to the overall production of intelligence.

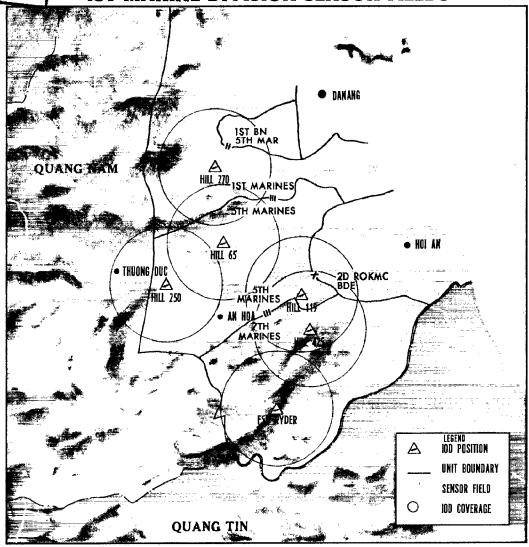
While usage of sensors to locate NVA/VC (whether for intelligence production or targeting) has been successful, employment of the devices alone is not a cure-all for pinpointing the enemy. Accordingly, current sensor coverage of selected operational areas complements aggressive patrolling and small unit operations, surveillance by Integrated Observation Devices (IOD), aerial reconnaissance, and harassing and interdiction fire programs as well as reports from other intelligence sources. During August, sensors were primarily located along infiltration routes leading into the coastal lowlands from the mountains. The Division employed over 80 strings containing a total of some 250 separate sensors. Shown on the next page are the general locations of 1st Division sensor fields at end-month in relation to regimental areas and IOD sites.





DUNE I

IST MARINE DIVISION SENSOR FIELDS



In addition to extensive employment of unattended ground sensors by III MAF infantry and reconnaissance units, elements of the 1st Marine Aircraft Wing have been directly involved. Targeting for much of the interdiction bombing conducted in areas of Laos adjacent to MR 1 relied upon information from sensors



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concepts of sensor employment in-country were developed, lst Wing participated by devising aerial emplacement and readout techniques.

Consequently, procedures were developed whereby the instruments could be delivered by helicopters or OV-10As, while later US-2Bs and C-117Ds were configured to receive sensor signals. Using the CH-46D, sensors are dropped by hand while hovering or flying slowly, a backup method used only in low antiaircraft threat regions. The successful, but limited, monitoring capability accomplished with US-2Bs of Headquarters and Maintenance Squadron-17 was added in late 1969. A receiver capable of monitoring 108 sensors was installed in the aircraft along with communication equipment to report sensor readings quickly to ground stations. Because of the limited number of US-2Bs available, they were used as monitoring stations only during periods wherein enemy activity was most likely. innovative techniques allowed emplacement and monitoring of sensors in areas where terrain configuration would otherwise have interfered with sensor activation transmissions. Modifications to OV-10As have given III MAF an additional aerial delivery and initial monitoring means. The modified Broncos drop the sensors from practice multiple bomb racks and simultaneously photograph the emplacement site with a specially installed Then the aircraft crew, using a Portatale installed in the aircraft, checks each sensor to assure proper functioning after emplacement.

The OV-10A modifications as well as many other facets of sensor employment have been sufficiently successful to warrant adoption in combat units throughout the Marine Corps. Thus, experience gained with sensors in RVN has been translated into greater FMF preparedness for contingency operations.





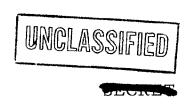
RURAL DEVELOPMENT AND PACIFICATION

The general quiescence prevailing in Quang Nam during August was reflected in diminished combat results associated with pacification support operations. Nonetheless, Combined Action Force and ARVN units--including territorial forces--conducted operations consistent with the tempo established over past months, at the same time improving combat and leadership skills. From a high of 114 platoons until May, the Combined Action Force decreased in size this month to 38 platoons, all in Quang Nam province.

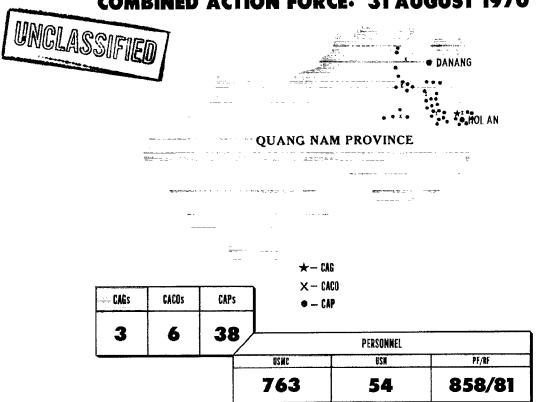
Combined Action Force

In keeping with the upsurge of independent Regional Force (RF) and Popular Force (PF) operations and progressive phase down of Marine forces in RVN, reduction of the Combined Action Force (CAF) accelerated. By the end of August, the CAF had constricted to the 2d Combined Action Group (CAG) presence in Quang Nam province, totaling six combined action companies with 38 combined action platoons (CAP). On the 24th, the last company of 1st CAG (Quang Tin/Quang Ngai provinces) was deactivated, leaving only the Group headquarters to complete administrative tasks related to unit deactivation. Similarly, 3d CAG headquarters (Thua Thien) continued temporarily in service following deactivation of its last company on 28 August.

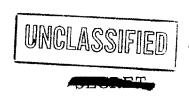
The following map displays the CAF dispositions at the end of the month, excluding 1st and 3d CAG headquarters.



COMBINED ACTION FORCE: 31 AUGUST 1970



While stand downs and deactivations progressed, remaining CAPs conducted combat operations undiminished in tempo. Although CAF strength had dropped 65 percent, CAP operations had fallen but 50 percent of the average prevailing during the preceding 12 months. However, CAP willingness for combat was unmatched by the enemy; throughout the month, NVA/VC forces avoided contact under all but the most advantageous circumstances. In 88 separate encounters, 75 percent were CAP-initiated. Enemy elements in most of these meetings were small and seemingly more intent on movement than combat. As a result, CAP kills, shown on the next page, were the lowest experienced since the program's inception.



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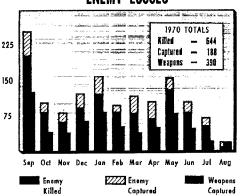
COMBINED ACTION ACTIVITIES: SEPTEMBER 1969 - AUGUST 1970

OPERATIONS CONDUCTED 12,000 8,000

Sep Oct Nov Dec Jen Feb Mar Apr May Jun Jul Aug

ZZZZ Daylight

ENEMY LOSSES



Combined Unit Pacification Program

Night Patrols
and Ambushes

Begun in the latter months of 1969 as the Infantry Company Intensive Pacification Program, the Combined Unit Pacification Program (renamed on 8 January) was developed as an adjunct to the Combined Action Program. In addition to enhanced hamlet security and improved training for territorial force units, the Combined Unit Pacification Program (CUPP) affords expanded opportunity for Marines to relate to the Vietnamese people, bringing heightened cooperation, understanding, and frequently, information of considerable value.

The two programs, although bearing a super-ficial resemblance, are distinctly different. CAP Marines are specially selected and trained-including basic language instruction-for assignment to a combined action platoon comprised of a PF platoon and a Marine squad under operational control of the local GVN district chief. Supporting arms requests and tactical coordination are conducted through liaison with Free World forces operating in the vicinity. On the other hand, since CUPP units are squads from 1st Marine Division rifle companies working in tandem with local RF/PF units, operational control and fire support are exercised through





existing USMC channels. Other than military and RVN preparatory training, CUPP Marines receive no formal indoctrination. While units employed in CUPP roles may not have full capacity for long term residual village security 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 regrouped for conventional combat, should circumstances require.

During the month, CUPP units augmented territorial forces at 22 hamlets distributed throughout the Division area as shown on the map. In the 1st Marines tactical area of responsibility, Company M had CUPP teams located with RF/PF units at eight hamlets, and Company I two more. To the south in the

CUPP LOCATIONS: AUGUST 1970

QUANG NAM

AN HOA

DANANG

HOLAN

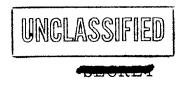
...

5th Marines area, lst Battalion operated three teams collocated with RF platoons. Company A shouldered the load for the 7th Marines, with teams at nine hamlets--each operating with a PF platoon, a rural development cadre team, and an armed contingent of the People's Self Defense Force.

• 3/1 • 1/5 • 1/7

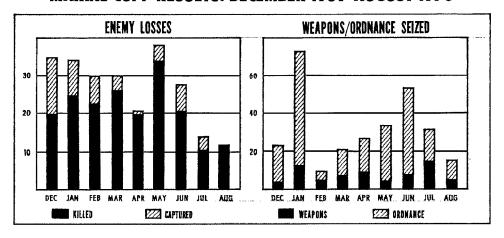
In a province burdened with a siz-

able refugee resettlement problem and an enemy determined to disrupt local GVN authority, CUPP success has been steady. Initially, these units helped provide security for participating hamlets populated with more than 20,200 Vietnamese; however, by the end of August, the teams were assisting about 29,900 villagers—a 47 percent increase.



August CUPP activity continued at the level of preceding months despite the reduced enemy exposure encountered by all Free World forces. CUPP units continued to stress around-the-clock patrolling; additionally, active participation by RF/PF leaders in planning has resulted in measurable improvement of operations. Results of CUPP actions are shown on the following graph.

MARINE CUPP RESULTS: DECEMBER 1969-AUGUST 1970



ARVN Operations in Support of Pacification

In addition to VU NINH 12 and HUNG QUANG 1/32B, both supporting the summer campaign discussed in the Combat Operations chapter, GVN forces in Quang Nam were engaged in two operations during the month. One, HUNG QUANG 1/32D (a follow on to HUNG QUANG 1/33 initiated on 11 April near Hill 55), ended on 15 August with modest results. That same day, Operation DUONG SON 4/70 commenced in the Que Son mountains south of Go Noi Island, with 2d and 3d Battalions, 51st ARVN Regiment; 2d Troop, 17th Armored Cavalry Assault Squadron; and the recently formed 101st RF Battalion operating under control of 1st Armored Brigade headquarters. By the end of the month, DUONG SON 4/70 had accounted for 90 enemy killed, 20 taken prisoner, one Chieu Hoi, and nine weapons captured, gained through a series of small encounters such as the following.

CECDER

On the 21st, eight miles southwest of Liberty Bridge, 2d Battalion, 51st ARVN Regiment made contact with enemy forces estimated at company size. The ensuing fight drove the enemy off, leaving nine dead, two weapons, and two detainees. Additionally, ARVN troops uncovered 16 tunnels and four cases of machine gun ammunition, all subsequently destroyed.

The most significant result of VU NINH 12 was discovery of communist caches and disruption of support installations. Sixth Battalion, 258th VNMC Brigade was searching an area 21 miles south-southwest of An Hoa on the 7th, when at midday they uncovered over 300 mortar and 45 recoilless rifle rounds, 115 rocket grenades, some 1,500 rounds of small arms and heavy machine gun ammunition, six antitank mines, and 15 pounds of documents belonging to the 222d Battalion, 220th NVA Transportation Regiment. Two days later and 27 miles west of An Hoa in densely vegetated slopes overlooking the Boung river, the 21st Rangers discovered a 200-bed hospital consisting of 120 huts. Also found were miscellaneous items of equipment and documents. find grew the following day, as 30 more huts, over a mile of wire, 21 telephones, six rifles, and more than 100 pounds of documents came to light a half mile to the south.

-Territorial Forces

During August, 1st Marine Division conducted quick fire marksmanship instruction for more than 200 RF and PF soldiers, while others from the 1/14 and 1/25 RF Groups participated in a three-week refresher course given at the Dong Da National Training Center. Unit training also progressed, as one newly formed RF company and four new PF platoons started basic training at the Hoa Cam Training Center. These four PF platoons are the last of ten recently authorized in Quang Nam. Additionally, two PF platoons were engaged in five weeks of refresher training at Hoa Cam. These programs and CAP/CUPP training have been partially responsible for developing MR 1 territorial forces capability



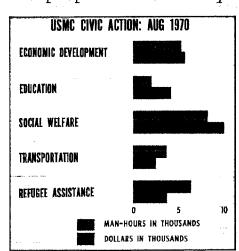


for independent operations, as evidenced in the following examples.

Just before noon on the 14th, the 8th Popular Force Platoon was conducting a search in river bottomland two miles east-northeast of Hoi An when it made contact with an enemy force. The resultant fight cost the Viet Cong six dead and two weapons. Two days later, an element of the 306th RF Company had established an ambush position three miles north of FSB Baldy. At approximately 0400, the RFs triggered the ambush against an enemy force; a subsequent search of the killing zone produced ten enemy dead, three prisoners, and one assault rifle, at a cost of one RF soldier killed.

Civic Action

Civic action diminished somewhat during August, as Marines in MR 1 contributed 34,760 man-hours (down from 51,640 last month) to assist the Vietnamese people in community improvement programs. A



principal factor of the slowdown was continuing force reduction, particularly disestablishment of two CAGs and redeployment of two force engineer battalions--all long-time major contributors. Also, the GVN was in the process of overhauling its system for meshing US assistance with community needs, thereby temporarily delaying commencement of new projects. In view of continuing redeployments,

all units have been encouraged to concentrate on short term undertakings. The accompanying graph displays distribution of Marine labor and expenditure of funds for civic action during the month. Not reflected is approximately 73 percent of the labor on all projects and 15 percent of the material which were contributed by local Vietnamese.

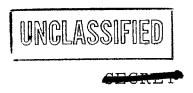


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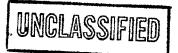
Progress continues on the Go Noi Island resettlement project; Phu Loc, the first village constructed, has grown to 1,500 inhabitants and 200 homes, while Phu Phong has nearly 200 houses in various stages of construction and 40 families remaining at night. Building of the third village will begin in early September. Although major USMC participation was completed last month, 1st Marine Division contributed large quantities of lumber in August, considered by province officials to be one of the main factors for project success. Results to date have been sufficiently encouraging to warrant planning a second project in Dien Ban district along Route 4, expected to resettle approximately 2,000 former inhabitants.

Force Logistic Command (FLC) was involved in two projects; in one near the headquarters, Phuoc Ha hamlet officials directed and supervised a continuing program for construction of wells, a community bath, and family dwellings for which FLC provided building materials. This arrangement encouraged dependence on local government officials. The second, construction of a market place in the hamlet of Hoa By, was primarily a self-help project. Planning and building were community tasks, while FLC helped to obtain requisite funds through the 1970 Village Self Development Program.

While every effort is made to conduct civic action through GVN channels or agencies, circumstances sometimes require direct and immediate action. Such a case resulted from the deliberate NVA sapper and mortar attack on the An Hoa Buddhist orphanage under cover of darkness on the 30th, resulting in 12 killed, 45 wounded (mostly children), and total demolition of the buildings. The nearest US unit, the 5th Marines, quickly provided medical treatment and other relief for survivors. Thereafter, Marine follow up assistance—material and technical advice—was submerged in the overall GVN conduct of orphanage reconstruction.







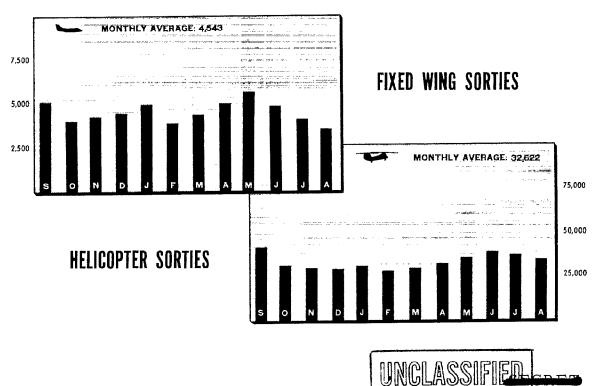
AIR OPERATIONS

The decline in flight operations executed during August is partially attributable to KEYSTONE ROBIN ALFA redeployments of 1st Marine Aircraft Wing elements. Fixed wing combat missions were significantly reduced after midmonth, while combat support flights approximated the level established in July.

Utilization of helicopter assets assigned to Marine Aircraft Group (MAG)-16 remained high, as 34,434 of the 38,024 sorties flown by 1st Wing fulfilled requests to lift more than 77,900 passengers and 6,200 tons of cargo. In view of stand down of a 26-plane CH-46D squadron on 5 August, the utilization rate for remaining Sea Knights increased to meet unabated requirements.

The graphs below show the relationship of 1st Wing operations in August to totals since September 1969.

MARINE AIR OPERATIONS: SEP 1969 - AUG 1970

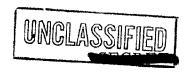


In-Country Fixed Wing Operations

First Marine Aircraft Wing supported Free World maneuver units throughout MR 1 with 2,787 combat and combat support sorties. Operations after 16 August averaged 43 attack missions per day in contrast to the 1970 average of 90 per day. Flying 2,069 combat sorties, the two fixed wing aircraft groups in-country, MAG-11 and 13, expended 6,085 tons of bombs, 1,799 napalm canisters, and 5,873 air to ground rockets (over 5,700 of which were fired by OV-10A pilots).

Marine air support, readily available with varied ordnance loads, continued to be much sought after as indicated by combat missions flown for all Free World forces in MR 1 and occasionally northern MR 2. Following are instances of flights during August resulting in representative bomb damage assessments as reported by forward air controllers. Midafternoon on the 1st, a flight of A-4Es from Marine Aircraft Group-11 struck an enemy logistic position in the southern half of the DMZ, eight miles northnorthwest of the Rockpile. Sixteen 500-pound bombs dropped by the Skyhawks ignited seven secondary explosions and left two secondary fires burning in the target area. At noon the next day, two F-4Bs on a preplanned mission were targeted against a bunker complex nine and one-half miles northeast of Khe Sanh. The aerial observer reported 15 bunkers destroyed and six bodies among the debris. Shortly before noon on 5 August, two flights of F-4Bs were scrambled from the Chu Lai alert pad to hit a newly discovered enemy position six miles west-southwest of Hue in Thua Thien province. These flights razed 20 structures and 20 bunkers. The largest group of enemy killed by Marine air strikes during the month occurred on the 13th, when two MAG-13 F-4Bs accounted for 19 dead and an 82mm mortar destroyed eight miles southwest of FSB Ryder.

A-6A aircrews flew 480 combat sorties in RVN during the month--39 percent were interdiction missions flown under control of AN/TPQ-10 ground radar



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systems, and most of the rest were preplanned close air support sorties guided by a portable radar beacon called RABFAC (radar beacon, forward air control). This guidance system was developed by the Marine Corps to improve the capability to deliver ordnance in support of troops under conditions of reduced visibility.

The six-pound beacon is used in conjunction with the A-6A integrated attack-navigation system, composed of computers, three radars, and other devises, which provides steering commands and a signal for automatic release of weapons. Although the RABFAC can be powered by a generator, it is normally operated from a 16-pound battery; thus, it is easily transportable by forward air controller (FAC) teams.

Although the RABFAC/A-6A system is effective under periods of limited visibility, it has also proven valuable in ideal weather and light conditions. The system ensures quick and accurate location of the target without a marking round from supporting artillery, mortars, or OV-10As. Additionally, this bombing technique is compatible with the already extensive training syllabus required for aircrew employment of the sophisticated A-6A system.

As an A-6A arrives on station over the battlefield, the FAC activates the beacon and provides a target briefing to the pilot by radio. This consists of beacon location, positions of friendly troops, description of the target, number of bombs desired, heading of bombing run, and direction to pull out after ordnance is released. The beacon, coupled with the aircraft's systems, produces a readily identifiable image on the plane's radar scope. Once offset bombing mode has been selected by the aircrew, the system provides steering commands to a point from which automatically released munitions will strike the target. When a FAC can observe the target, and time permits, the aircrew will confirm target location with a simulated bombing run. On the second pass the plane will release only one or two bombs, after which the FAC sends corrections to bring the next drop on target; generally, the third run yields 100 percent target coverage.

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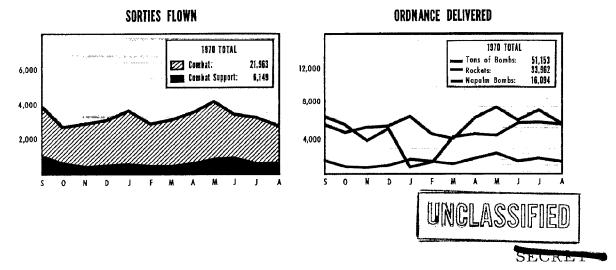
The unique all-weather and enhanced fair weather close air support capability resulting from the Marine RABFAC/A-6A combination has been extended throughout MR 1. During August, beacons were routinely used by 1st Marine Division; Americal Division; 101st Airborne Division; 1st Brigade, 5th Infantry Division (Mechanized); and 5th Special Forces Group, as A-6As were tasked to fly 10-12 RABFAC sorties per day.

OV-10A aircrews from Marine Observation Squadron-2 continued intelligence and forward air controller (airborne) support by flying 597 sorties in August. Visual reconnaissance of the 1st Marine Division area of responsibility was their mission on 62 percent of the flights, while 32 percent controlled fixed wing strikes. Remaining flights included small numbers of escort, photography, and artillery spotting missions.

TA-4F pilots, tasked to collect intelligence information on visual reconnaissance flights, logged 132 in-country sorties during the period. Because of the TA-4F's high speed, coverage of large areas during a short period of time is possible; therefore, much of the intelligence from the flights was useful to other XXIV Corps elements in addition to III MAF.

The following graphs reflect in-country combat and combat support operations and munition expenditures for the past year.

IN-COUNTRY FIXED WING SUPPORT BY MARINE AIRCRAFT SEPTEMBER 1969 - AUGUST 1970



Helicopter Operations

Helicopter statistics for August show a decrease in flight operations for all types of rotary wing aircraft, except the AH-1G. Sortie rates of CH-53Ds and UH-1Es each declined by approximately 1,000 sorties, while CH-46Ds flew 701 sorties less than in July. The latter was attributed in part to Marine Medium Helicopter Squadron (HMM)-161 terminating combat support operations on 4 August.

HMM-262, 263, and 364--the CH-46D squadrons remaining in-country after stand down and redeployment of HMM-161--increased their operational tempo, as 19,034 monthly sorties carried 35,496 passengers and 1,112 tons of logistic supplies. Throughout the month, as in the past, these flights were primarily for III MAF, RVNAF, and ROKMC units.

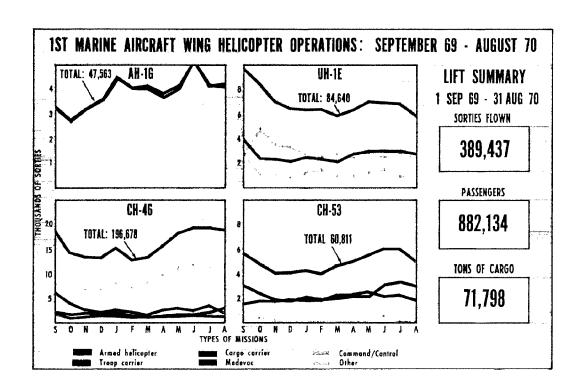
While total sorties for August dipped below the numbers compiled for each of the last three months, CH-53Ds flew 5,161 missions, carried 50 percent of all passengers, and helilifted 82 percent of the equipment during the month. The Sea Stallion's lift capability was relied upon frequently for artillery displacements this month; over 50 cannon and accompanying ammunition were moved. A typical example was the 12 August movement by two CH-53Ds of four 105mm howitzers, 600 rounds of ammunition, and 50 Civilian Irregular Defense Group (CIDG) personnel from FSB McNutt (21 miles northwest of An Hoa) to Hill 37 (seven miles north-northwest of An Hoa). Two other Sea Stallions returned the next morning and shuttled 500 more CIDG troops from the FSB to An Hoa combat base.

Many logistic and combat support missions by medium and heavy helicopters were accompanied by UH-1E or AH-1G armed escorts, as Marine Light Helicopter Squadrons-167 and 367 flew more than 7,800 armed helicopter flights. An additional 2,468 sorties by UH-1Es provided command and control support for various ground commanders.



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The following graphs compare rotary wing operations with monthly totals since September 1969.



On 5 August, Marine Medium Helicopter Squadron-161 stood down from combat operations and began final preparations to depart RVN on 18 August for Marine Corps Air Facility, Santa Ana, California. introduced in-country on 12 June 1965, HMM-161 was equipped with UH-34D helicopters, until it rotated back to CONUS on 17 December 1966 for refitting with The Squadron returned to Vietnam in May 1968, when it joined Provisional Marine Aircraft Group-39 at Quang Tri to provide helilift support for 3d Marine Division in northern MR 1. After the Division moved to Okinawa in November 1969, HMM-161 transplaced to Phu Bai and then to Marble Mountain Air Facility outside of Danang. While most of the Squadron's helicopters were shipped to MAG-36 at Futema, Okinawa, the squadron cadre and colors returned to re-form at Santa The redeployment completes another page of

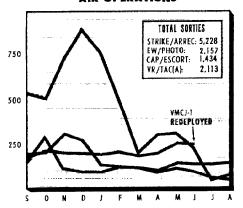


HMM-161 combat history, stretching back to 1951 in Korea, when it pioneered helicopter tactics as the first transport helicopter squadron to operate in a combat zone.

Out-of-Country Operations

First Wing missions out-of-country during August closely paralleled the reduced levels of activity established in July. Pilot and bombardier/navigator teams flying A-6As logged 87 night armed reconnaissance sorties over Laos, the majority of which were targeted against heavily traveled Route 912 of the Ho Chi Minh Trail, striking storage areas, transship-

MARINE OUT-OF-COUNTRY AIR OPERATIONS



ment points, and moving vehicles. These strike operations were halted on 19 August due to a combination of revised sortic allocations, current redeployments, and high priority requirements in-country.

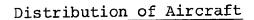
Pilots flying TA-4Fs compiled a total of 156 missions in August. These flights reconnoitered road networks and controlled daytime strikes on designated targets. Twelve F-4B escort sorties accompanying some of

the TA-4Fs completed the picture of Marine air operations over Laos; however, 48 barrier combat air patrols over the Gulf of Tonkin represented the dominant out-of-country role for Phantom II crews.

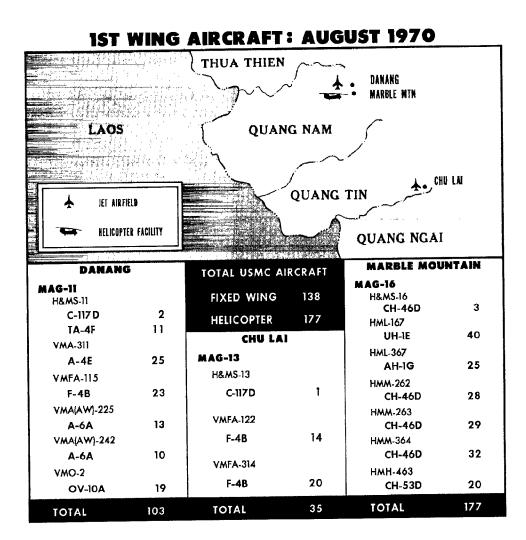
Aircraft Losses

Two helicopters were lost to direct enemy action in August. During a night medical evacuation flight on 7 August, a CH-46D was hit and downed by small arms fire while departing the landing zone. On the 18th, an armed UH-1E escorting a ROKMC resupply mission crashed and burned after making two runs to suppress hostile fire.





Following in the trace of VMA-311, VMFA-115 relocated to Danang from Chu Lai on 24 August and was placed under the command of Marine Aircraft Group-11. In addition to HMM-161, Marine Wing Support Group (MWSG)-17 redeployed from RVN during the month. As can be seen from the following end-month distribution of aircraft table, this shift removed three US-2Bs and one C-117D from 1st Wing. Additional information concerning MWSG-17 redeployment and functions is contained in the following chapter.





LOGISTICS

Although combat this month declined, III MAF logisticians were fully engaged with support for units remaining in-country, staging and embarkation of KEY-STONE ROBIN ALFA elements, and redistribution of excess materiel. Redeployment of service support organizations kept pace with combat unit reductions, as two force engineer battalions, a wing support group, and Force Logistic Command elements left RVN.

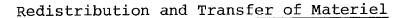
KEYSTONE ROBIN ALFA Redeployments

The fourth redeployment increment of Marines progressed steadily, as three embarkation units (5, 6, and 7) sailed from Danang, leaving eight for transference prior to 15 October.

Embarkation Unit-5, comprised of detachments from Force Logistic Command and Marine Medium Helicopter Squadron (HMM)-161, loaded on two LSTs for movement to CONUS on the 16th. Two days later, Marine Wing Support Group-17 embarked on the USS Denver (LPD-9) and the USS Durham (LKA-114), destined for Iwakuni, Japan. Additionally, these ships carried a platoon of 1st 8-inch Howitzer Battery, the 15th Interrogation-Translation Team, and 14 CH-46Ds from HMM-161 for delivery to Okinawa. During the 22d to the 24th, the third and largest movement of the month-including 3d Military Police Battalion (-), 1st Force Reconnaissance Company (-), 7th Engineer Battalion (-), 1st Bridge Company (-), and the remainder of 9th Engineer Battalion--embarked on the USS Fresno (LST-1182), USS Juneau (LPD-10), USS Saint Louis (LKA-116), and USS Alamo (LSD-33) for translocation to CONUS, with arrival expected on 11 September.

These three surface shipments moved 747 men, 159,217 square feet of vehicles, and 269,156 cubic feet of cargo during August. In addition, 25 personnel and ten tons of cargo were airlifted to Iwakuni.





Two programs--redistribution of excesses and transfer of materiel to the RVNAF--instituted as a result of reduction of Marine forces in RVN and a closely related Vietnamese forces improvement project progressed during August. Both entail economic utilization of excess equipment necessary for unit mission accomplishment, but the latter also involves non-excess items from redeploying Marine units which will draw like materiel upon arrival at their new bases. Unit allowances of these items are prescribed in tables of equipment (hence the term T/E equipment) and special allowance lists established to meet requirements peculiar to the Vietnam war.

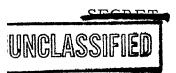
Excesses occurring are the unavoidable result of redeployment, except for overages of obsolescent materiel stemming from replacement by newer models. When a unit redeploys, all special allowances of T/E equipment are terminated, thus leaving those items as excess. Similarly, deactivation of a unit in-country causes all of its materiel to become excess. In some cases, further overages occur when requisitioned materiel arrives after the ordering unit is deactivated or redeployed. Also, as III MAF strength is lessened, authorized FLC stock levels and quantities of spare equipment held for temporary exchange for items needing maintenance are recomputed, leaving more equipment than required.

To save on shipping costs and time, the redistribution of excesses program was designed to offer items first to in-country forces, and if not required in RVN, then to Pacific Command Marine units. The in-country priority for redistribution is to non-redeploying USMC units, the Vietnamese Marine Corps, 2d ROK Marine Brigade, and other RVNAF (Headquarters, Marine Corps approved items), in that order.

In the latter category, III MAF has been an active participant in the interservice excess screening system for transfer of material to the RVNAF--



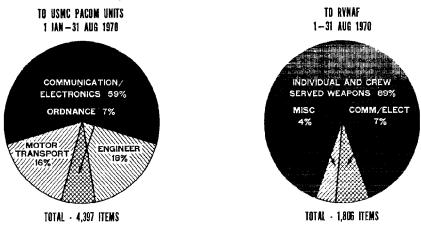




implemented by the Military Assistance Command, Vietnam (MACV) on 1 August; during the month, some 1,800 items of Marine Corps equipment have been turned over to the Although arrangements to transfer materiel must be made through a rather complex procedure, they are accomplished in minimum time. Redeploying units report their items of serviceable equipment required by the RVNAF to III MAF. Subsequently, these items are nominated for transfer to the Vietnamese by reporting them to Headquarters, Marine Corps (HQMC) via MACV. HQMC arranges for reimbursement, III MAF is authorized to proceed; the entire cycle usually takes approximately ten days. III MAF then sets up a transfer schedule and joint serviceability inspection. A measure of the spirit and effort put into selecting and preparing equipment for transfer is that 97 percent of the materiel offered since the beginning of the program has been accepted.

Excesses, by equipment categories, redistributed to USMC and RVNAF units since the beginning of the year are shown below.

T/E EQUIPMENT REDISTRIBUTION



Engineer Operations

During August, the preponderance of engineer effort continued toward land clearing and road improvement projects initiated in previous months. Clearances



on Barrier Island and adjacent land masses (begun on 25 May) were completed, as 3,375 acres were stripped in a region exploited for years by enemy forces. The Marine/Seabee project to upgrade National Route 1 in southern Quang Nam continued uninterrupted, as did daily maintenance of more than 35 miles of single lane, all-weather road in the Danang area.

On the 22d, the last two Marine force engineer battalions in RVN, the 7th and the 9th, commenced embarkation for redeployment, leaving an engineer complement of Company A, 7th Engineers (under operational control of III MAF) and 1st Engineer Battalion, 1st Marine Division reinforced by Company C, 1st Shore Party Battalion. The 7th and 9th Engineer Battalions, capable of extensive construction support, were normally employed in general support of III MAF as a whole.

-7th Engineer Battalion

To meet the demand for major engineering support in Danang and its environs during the 1965 build up of US forces, 7th Engineer Battalion, the first force engineer unit so committed, was deployed to RVN--Company C on 18 February and the remainder of the Battalion with attached 1st Bridge Company in August. Upon arrival, Marine engineers commenced construction support for all US forces in the Danang enclave. This involvement included building of airfield, cantonment, water, and electrical power facilities. In addition, 7th Engineers shouldered responsibility for road maintenance essential for tactical and logistic operations on the periphery of Danang, to include improvement and construction of bridges and ferry/raft installation and operation.

These endeavors occupied the Battalion fully until 1968, when events of the Tet offensive and countering efforts extended 7th Engineer participation. Added were upgrading National Route 1 between Danang and Hoi An and installation of barbed wire



around Danang in a cleared band eight to ten thousand yards distant. Also, 1968 brought a new role--massive land clearing--shared with units from the 1st and 9th Engineers and the US Army 39th Engineer Battalion to reduce enemy defensive and logistic complexes on Go Noi Island.

Since 1968, 7th Engineers has provided large scale engineering support to Free World forces in MR 1, as well as close combat support such as mine sweeping more than 35 miles of road daily and demolitions emplacement. Despite a continuous high level of activity, the Battalion engaged in civic action projects—construction of the Ha Thanh dam in the outskirts of Danang and provision of instructors for Vietnamese self-help construction projects were typical. On the eve of redeployment while preparing for movement to CONUS, the Battalion was still engaged in the upgrade of Route 1 north of Tam Ky.

-9th Engineer Battalion

UNCLASSIFIED

The steady influx of US and allied forces into RVN during 1965 and 1966 brought increasing demands for military engineers in southern MR 1. Therefore, the 9th Engineer Battalion was deployed to Chu Lai in June 1966. III MAF assigned the new unit to support all forces in the vicinity, including Marine air and ground units, Americal Division, and later 2d ROKMC Brigade. This tasking entailed providing utility services along with construction of command posts, cantonments, storage installations, and helicopter landing pads with attendant support facilities; building bunkers and obstacles; and construction and upgrade of roads, including National Route 1. To facilitate the latter task, 9th Engineers opened a quarry two months after arrival and produced crushed rock until redeployment.

As the years progressed, the Battalion became increasingly committed to road improvement, to include maintenance and reconstruction of bridges and operation of tactical ferries and rafts. To assist in the



program, a provisional bridge platoon was formed, providing expertise for employment of tactical bridging and rafts until replaced by a platoon from 1st Bridge Company in November 1966. One highlight of 9th Engineers accomplishments was construction of the Ba Ren bridge five miles southwest of Hoi An on Route 1, begun in July 1968 and completed on 1 January 1969. This 722 feet long, 24 feet wide, steel stringer, pile bridge ranks among the largest built in RVN by Marine engineers.

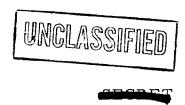
Commencing in 1968, Battalion units participated in major land clearing operations on Go Noi Island, Barrier Island, and other areas south of Hoi An. These endeavors continued through 1970, as a platoon and headquarters element from 9th Engineers served with platoons from 39th Engineers in a joint land clearing company operating on Barrier Island and adjacent land masses.

The Battalion also engaged in projects directly beneficial to the Vietnamese people, including construction of the Dickie Chapelle Memorial Hospital, a monument to the late newswoman.

Motor Transport

UNCLASSIFIED

Throughout the course of the RVN conflict, vehicular traffic has been constantly exposed to mined roads and highways. This tactic, one of the easiest for the guerrilla to employ, is difficult to completely foil, despite daily mine sweeps. Over the years, the major highways have been progressively paved to enhance all-weather trafficability and frust-rate mine emplacement. Nonetheless, vehicles are still subject to occasional mining. To reduce passenger casualties from such encounters, sandbags and boiler plate have been employed in and around the cabs, beds, and front wheels. However, the disadvantages of increased mechanical failure due to excess weight, restricted access to vital areas on the truck, and inadequacy of sand bags to stop fragments pointed up the



need for a better way to harden vehicles. In late 1968, III MAF stated an operational requirement for development of a light armor kit which could be readily attached to vehicles.

This month, III MAF received the initial delivery (276 kits) of new vehicle fragmentation armor for 2 1/2-ton and 5-ton trucks. These kits are manufactured in two modules to provide protection for both cab and cargo, are interchangeable between like vehicles, and can be installed without special tools or modification of the vehicles. Two men can install each kit in approximately three hours. Fabricated from 5/8-inch wrought homogeneous armor steel, these kits weigh approximately 25 pounds per square foot compared to 40 for sandbags. This armor will defeat fragments from most land mines encountered in RVN, and has successfully withstood fragment penetration from 105mm and 155mm artillery shells detonated under test trucks. Other tests have verified that the kits will reduce fatal and severe casualties by approximately 70 percent.

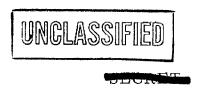
Present plans call for procurement of 1,228 cab and 200 bed kits, scheduled for delivery at the rate of 100 per month. As they arrive in-country, these kits are being installed on the vehicles traveling high mine threat roads.

Ordnance

UNCLASSIFIED

Throughout the month, ground and air munition stockages were at or above levels necessary for adequate support of III MAF commitments. The previous restricted supply rate of 175mm high explosive projectiles (16 rounds per gun per day) was rescinded on the 25th, upon acquisition of sufficient assets to support the normal 20 rounds per gun per day.

In view of the impending closure of Chu Lai Air Base, Marine aviation munitions positioned for



support of MAG-13 (and previously MAG-12) are being relocated to Danang for use by the last remaining fixed wing group, MAG-11. Expenditures of air munitions have decreased in proportion to the reduced tempo of fixed wing attack operations, creating temporary overages in certain commodities.

Aviation Logistics

The month was punctuated with the 18 August redeployment of Marine Wing Support Group-17 after four years of supporting 1st Marine Aircraft Wing in Composed of Headquarters and Maintenance Squadron (H&MS)-17 and Wing Equipment and Repair Squadron (WERS)-17, the Group was located at Danang Air Base. In addition to self-sustaining administrative and maintenance activities, H&MS-17 provided Marine Corps supply support and postal, disbursing, and post exchange services for all 1st Wing units throughout MR 1. Also, H&MS-17 operated the wing flight section, comprised of C-117D and US-2B assets. All Marine aircraft requiring movement out of RVN were maintained, preserved, and retrograded by H&MS-17. WERS-17, as its name implies, was responsible for extensive maintenance of 1st Wing ground support materiel such as motor transport, engineer, and other equipment, excepting communication-electronics items. Additionally, WERS-17 provided maintenance support for the SATS (Short Airfield for Tactical Support) launch and recovery systems while in operation at Chu Lai and for the Tactical Airfield Fuel Dispensing Systems. By the end of the month, MWSG-17 had arrived at Iwakuni, Japan to support 1st Marine Aircraft Wing (Rear). Those functions previously provided for incountry aviation units and still in demand were delegated to other 1st Wing support agencies.

The in-country Marine aircraft population continued to dwindle, as the CH-46Ds of HMM-161 plus the C-117D and US-2Bs of H&MS-17 left RVN. The chart on the following page displays 1st Wing inventory and its distribution through progressive aircraft rework (PAR) and damage repair at end-month.

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Aircraft Model	Total Assigned	PAR	Damage Repair	Other	Total In-Country
	25	5	1 1	0	19
7 4.4	11	1	2	0	8
A-6	23	0	0	0	23
34. A: F.4	57	10	6	0	41
C-117	3	0	0	0	3
	19	0	0	0	19
Arri	25	0	0	0	25
	40	6	2	0	32
CH-46	92	26	2	0	64
CH-53	20	0	0	0	20
EAN DOOR					
TOTAL	315	48	13	0	254

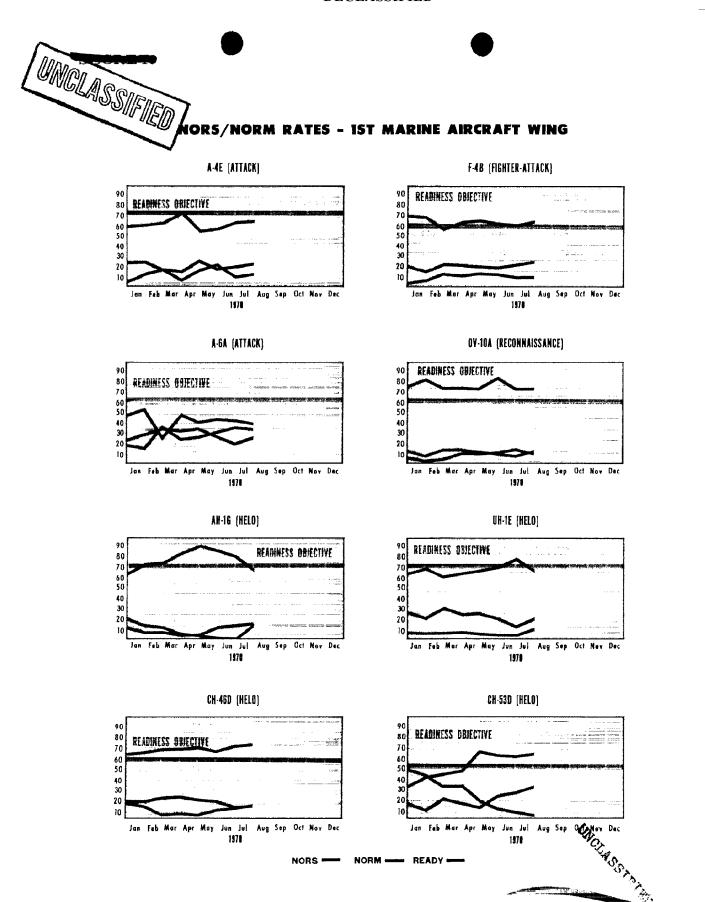
NORS/NORM/OR

UNCLASSIFIED

A-6A aircraft, temporarily limited in performance capabilities due to suspected wing cracks, have been inspected and in-country aircraft were found to be sound. Nonetheless, an airframe alteration will be performed on all A-6As to prevent future development of cracks. However, maintenance continues to affect A-6A availability, due principally to reduced effectiveness of the 1st Wing Semiautomatic Checkout Equipment (SACE) complex. Plans have been made for a modification team to commence rework (parts availability permitting) of the SACE on 17 September.

The NORS/NORM and OR (not operationally ready due to supply/maintenance and operationally ready) trends for major categories of III MAF aircraft since the first of the year are shown in the graphs on the next page.





SECRE