SECTION III

MAJOR CONCLUSIONS

1. Current doctrine as contained in field manuals and training texts does not include lessons learned in Vietnam.

2. Combat operations in this environment require that the assault elements of the rifle company be foot mobile, that the equipment of the assault elements of the maneuver battalion be mobile by utility helicopter, and that the equipment of the brigade force, including combat support and combat service support elements, be mobile by medium helicopter.

3. The rifle strength of the maneuver battalion is inadequate for efficient operation in this environment.

4. The firepower of the maneuver battalion can be improved by eliminating organic weapons of little or no tactical value and replacing them with weapons more suitable to this environment.

5. Some items of individual and organizational equipment, primarily weapons and communications equipment in the maneuver battalions, are unsuitable or inefficient for combat operations in this environment.

6. TAOR operations, base camp security, and administrative and logistical support require a ground vehicular capability in all tactical organizations sufficient for sustained combat.

7. Semi-permanent base camps require manpower, equipment, and services beyond the organic capabilities of battalions, brigades, and divisions.

8. The service support provided to maneuver battalions is adequate to sustain operations.

9. For other than preplanned airmobile operations, the responsiveness of Army aviation support units under the operational control of the tactical unit commander is measurably greater than that of aviation support units not under such control.

10. Because the lift capability of the utility helicopter has been reduced by environmental and operational conditions, the airlift capability of all assault helicopter units, and particularly those in the 1st Cavalry Division, is lower than their designed capability.

11. Tactical organizations require trained staff personnel to conduct necessary civil affairs/civic action programs in Vietnam.
SECTION IV

MAJOR RECOMMENDATIONS

1. Current doctrine should be expanded to incorporate lessons learned in Vietnam.

2. The assault elements of the rifle company should be foot mobile, the equipment of the assault elements of the maneuver battalion should be mobile by utility helicopter, and the equipment of the brigade force, including combat support and combat service support elements, should be mobile by medium helicopter.

3. The maneuver battalions in Vietnam should consist of a headquarters and headquarters company and four rifle companies. The organizations are shown in Figures II-16 thru II-19, and the implementing MTOE are contained in Annex H, Volume 9.

4. Additional study should be made of the base camp problem to ascertain the best means of providing post, camp, and station type services and equipment, while relieving the combat units of these responsibilities to the extent feasible.

5. In order to bring the 1st Cavalry Division up to its designed lift capability, alternative courses of action should be analyzed using cost effectiveness techniques and production data together with the information contained in this report, to provide the most desirable means of increasing the division's lift.
The five following operations are included as illustrative of the conduct of battalion actions in Vietnam. They are by no means all-inclusive, yet they do represent a cross section of actions and provide a framework within which the reader unfamiliar with combat operations in Vietnam may understand more clearly the final recommendations of this report.

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>LOCATION</th>
<th>TYPE</th>
<th>MAJOR UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Wing</td>
<td>AO</td>
<td>Airmobile Search and Destroy</td>
<td>1st Cavalry Division</td>
</tr>
<tr>
<td>Hump</td>
<td>AO</td>
<td>Air- and Groundmobile Search and Destroy</td>
<td>173d Airborne Brigade</td>
</tr>
<tr>
<td>Cocoa Beach</td>
<td>TAOR</td>
<td>Groundmobile Search and Destroy</td>
<td>1st Infantry Division</td>
</tr>
<tr>
<td>Van Buren II</td>
<td>AO</td>
<td>Area Securing</td>
<td>1st Brigade, 101st Airborne Division</td>
</tr>
<tr>
<td>Happy Valley</td>
<td>TAOR</td>
<td>Area Clearing and Securing</td>
<td>1st Cavalry Division</td>
</tr>
</tbody>
</table>
OPERATION WHITE WING

1. GENERAL.

Operation White Wing, conducted by the 1st Brigade, 1st Cavalry Division, during the period 17 - 27 February 1966 offers a good example of an airmobile infantry battalion, the 1st Battalion, 8th Cavalry, conducting a search and destroy operation in an AO making maximum use of its airmobile capability.

2. LOCATION.

The operation was conducted in an area known as the Eagle's Claw, so-named for the confluence of six streams into the Song Lon Valley. The 1/8th Cavalry operated in the northern half of this area. At the hub of this network of valleys was the brigade forward CP, LZ BIRD. Forty-five kilometers southwest of BIRD was An Khe and Camp Radcliffe, the division's permanent base camp. The division forward CP during the month-long series of operations was at Bong Son, some 20 kilometers northeast of BIRD. (See Figure II-2, sketch map, Section II) Thirty-five kilometers southeast of BIRD, near Phu Cat, was the brigade logistical base composed of the 1st Forward Support Element (FSE) of Support Command, 1st Cavalry Division, and the subordinate battalion trains. These latter elements closed Phu Cat after a five hour road march from An Khe.

3. TERRAIN/AND WEATHER.

The brigade AO, a square roughly 20 kilometers on a side, was predominantly mountainous with jungle and dense undergrowth covering the sharp slopes. Relatively flat land was found in narrow strips along the stream beds, with most of this under some degree of cultivation or habitation. Excellent cover and concealment were provided for any ground force, yet landing zones were relatively easy to locate and easily accessible. These landing zones were frequently along ridge lines and on hill tops, as well as at the usual stream-side clearings.

The weather, generally hot and humid with a temperature range of 55°F to 95°F, was favorable to airmobile operations. The dust and smoke habitually created by hovering helicopters or from fire support elements posed no limitations to operations.

4. ENEMY SITUATION.

Because of recent actions in the areas neighboring Bong Son, the enemy was attempting to avoid contact, and to regroup and reorganize. Elements of the 18th NVA Regiment were reported in the AO, as well as the 2nd VC Regiment and a main force VC battalion, tentatively identi-
fied as the Tay Son Battalion. Any of these units could be expected to use local forces as screening elements. In addition to these units, the area was believed to contain a controlling headquarters and several secret bases. The 1st Brigade occupation of the Eagle's Claw would deny the enemy freedom to move units north or south in the AO in any attempt to concentrate forces.

5. MISSION.

The 1/8th Cavalry, was to execute an airmobile assault into the assigned battalion AO, roughly 25 square kilometers in the northern portion of the brigade AO, six kilometers north and west of BIRD, and conduct search and destroy operations against the VC.

6. ORGANIZATION.

For this operation, like most previous ones, the 1/8th Cavalry was augmented by engineer, pathfinder and reconnaissance support. Each rifle company (A, B, and C) had attached an engineer squad, while a reconnaissance team of two H-13 helicopters from the 1/9th Cavalry and a pathfinder team were attached to the battalion. All assault elements closed into LZ BIRD, in effect the battalion staging area, leaving two other portions of the unit elsewhere: the battalion trains near Phu Cat, and a rear detachment of a dozen men at the An Khe base camp. Each company was organized for combat according to the TOE. All mortars, however, were initially left in the battalion base. The anti-tank platoon of Company D, the combat support company, was equipped with only two of its eight 106mm RR's on ground mounts and two .50 cal MG's for CP defense. The reconnaissance platoon provided a 33-man maneuver element.

The 1st Brigade, in addition to its three normal maneuver battalions of the 1/8th Cavalry, 2/8th Cavalry and 1/12th Cavalry, had the 2/19th Artillery (DS), Battery A, 1/30th Artillery (155), and Company C, 8th Engineers. Smaller unit attachments included an MP platoon, and teams of signal, IPW, civil affairs, psychological warfare, radar, and radio research. Additionally, USAF close air support, both preplanned and immediate, was available.

7. EXECUTION.

The 1/8th Cavalry closed on BIRD by CH-47 and UH-1D at 181700 Feb and occupied the northern sector of the perimeter. The brigade combat support units closed by both air and ground means. Harassing and interdictory (H&I) fires were conducted throughout the night, and no enemy contact was made. Because another battalion was responsible for the security of the brigade forward CP as well as for providing the brigade reserve/reaction force, the 1/8th Cavalry was able to commit its forces totally in its search and destroy operation.
At 190900 Feb, Company C, 1/8th Cavalry, air assaulted by UH-1D into LZ RENEGADE preceded by a 13 minute artillery and a two minute aerial rocket artillery (ARA) preparation. RENEGADE, a football field sized LZ, six kilometers north and two kilometers west of BIRD was nestled between the 15 meter wide Song Nuoc Luong River and sharp ridges running 150 meters above each side of the valley. (See Figure 1-1, sketch map) The company immediately set up a blocking position astride the valley, the only natural north-south route of movement in the vicinity, but no enemy contact was made that day or night. Two hundred pounds of rice were found, and as it burned, numerous explosions occurred presumably from concealed small arms ammunition.

At 191005, Company B, 1/8th Cavalry, air assualted into LZ STALLION, a small clearing in some broken land 1700 meters southwest of RENEGADE. (See Figure 1-2, sketch map) As usual, there had been a half-hour air strike and 15-minute artillery preparation. After Company B had secured the LZ and the pathfinders had established their ground control system, Companies A and D, with battalion headquarters, landed under pathfinder guidance and established a perimeter defense. The entire battalion was able to complete its move in 96 sorties with 18 UH-1D's within 50 minutes. Search and destroy operations on foot in the vicinity were started: Company B patrolled 1000 meters to the east, Company A patrolled 2000 meters south down a shallow valley, and the reconnaissance platoon patrolled 1500 meters to the west. No contact was made during the day.

Prior to darkness, while Company C consolidated its defense and blocking position at RENEGADE the remainder of the battalion closed on STALLION for night defense. Ambush patrols were stationed as usual on the likely avenues of enemy approach to the perimeter and were in position before dark. H&I fires from both mortar and artillery were delivered throughout the night. A VC squad with automatic weapons probed Company B's defenses at 200115 and retreated after return of controlled fire. Company B sustained two seriously WIA's and experienced some difficulty in evacuation. Prolonged requests for "dust off" (medical evacuation helicopter support) could not be met because of fog at both BIRD and Phu Cat, the "dust off" bases. A lift ship was subsequently requested from Company A, 227th Assault Helicopter Battalion (AHB) which, aided by 81mm illuminating mortar rounds, completed the evacuation by 200530. At first light (HMMT) a "mad minute" was conducted. This reconnaissance by fire, standard procedure to induce any VC forces within the vicinity to commit themselves, has proved very successful in many operations by the 1/8th Cavalry. It is of course, tightly controlled. Specific areas of coverage are assigned for each weapon, and the period of fire is limited.

20 February was to see major action for Company C. (See Figure 1-3, sketch map) Meanwhile, Company B, acting as CP security and battalion reserve, conducted local patrols in the vicinity of STALLION. Company A moved by foot to establish a patrol base 2000 meters north-
FIGURE 1-1 (U) SKETCH MAP, OPERATION WHITE WING
FIGURE 1-2 (U) SKETCH MAP, OPERATION WHITE WING
ACTIONS ON 19 FEBRUARY 1966

FIGURE 1-3 (U) SKETCH MAP, OPERATION WHITE WING
ACTIONS ON 20 FEBRUARY 1966

FOR OFFICIAL USE ONLY
west of STALLION, and from it, conducted search and destroy operations some 2000 meters around it both east and west in likely areas of VC activity. No contact was made, and it was airlifted back to STALLION, closing at 201657.

Company C had the mission of conducting a search and destroy operation northwest up the Song Nuoc Luong Valley to OBJ 3, 3500 meters from RENEGADE. To support the sweep, Company C's 81mm mortar platoon was airlifted to a firing position, LZ EAST, 1000 meters northeast of OBJ 3 behind an abrupt round hill 300 meters high.

The reconnaissance platoon was airlifted to a blocking position, LZ WEST, 1000 meters northwest of OBJ 3 to cut off enemy retreat as Company C advanced.

At 200800, Company C captured one VC (VC) who indicated the location of three MG positions 1000 meters up Company C's route of advance. VC were subsequently seen to be withdrawing north and tactical air support was called to conduct strikes on suspected VC platoon positions at and north of OBJ 3, to eliminate most of the resistance. These attacks were supplemented with artillery which fired a total of 901 rounds that day. In its further advance, then, Company C was left to face only a squad sized force.

Total results of the action on that day were one friendly WIA, 11 VC KIA (body count), 23 VC WIA (est), 2 VC (1 wounded), and 1 captured SKS rifle. Company C consolidated west of OBJ 3 for the night, and the reconnaissance platoon was airlifted at 1800 to LZ EAST to secure Company C's mortar platoon. There was no enemy contact throughout the night.

The next morning, at 210730, Company C continued its advance north toward OBJ 4, 1000 meters north of OBJ 3 and the T-junction of two streams. Company B air assaulted at 210800 into a new LZ, STUD, 1500 meters northeast of OBJ 4 to begin working downhill southwest and establish a blocking position at OBJ 4. (See Figure 1-4, sketch map) One platoon was immediately airlifted 1000 meters to the west of STUD because of suspected enemy activity there, but no contact was made. Company B then proceeded on two axes to sweep towards OBJ 4. This it reached at 211215, and then conducted local sweeps through the nearby draws. One thousand pounds of rice were destroyed.

Company A had similarly been airlifted to LZ COLT on the west side of the AO, some 2000 meters northwest of OBJ 4 on some broken high ground. No problem was experienced with the terrain since rappelling and troop ladder techniques were used to exit the helicopters. The Company, however, in working down a steep series of draws toward OBJ 4, found the terrain so broken that it was unable to reach OBJ 4 before nightfall, and set up its own perimeter defense for the night. Just before darkness, supplies were lifted in because of the absence of
FIGURE 1-4 (U) SKETCH MAP, OPERATION WHITE WING
ACTIONS ON 21 FEBRUARY 1966

FIGURE 1-5 (U) SKETCH MAP, OPERATION WHITE WING
ACTIONS ON 22 FEBRUARY 1966

FOR OFFICIAL USE ONLY
suitable LZ's.

Company C, in its advance from OBJ 3 north to OBJ 4, uncovered several significant items. Three VC, who had been pinned in a cave on the east side of the valley by the previous day's activities, were discovered to have escaped through a rear exist, but a rifle and some documents were found. On the other side of the valley, an evacuated 70-bed VC hospital was uncovered, along with medical supplies, various items of individual combat equipment, and an estimated company command post. A VC raider indicated that the hospital was a VC mobile field hospital established by the Lieu Tinh Medical Battalion and defended by the F 106 Battalion. Both the battalions were commanded by the medical battalion commander who was both a medical doctor and a military commander.

For the night of 21 February, Companies A, B, and C each had separate perimeters. The battalion CP moved forward to LZ EAST with the reconnaissance platoon and all mortars in the battalion. Company D continued securing STALLION. An active H&I program was conducted, but no contact was made all night.

Commencing 2200730, all units picked up their missions where they had left them the day before. Company C continued its sweep which uncovered eight tons of rice in a VC cache, several items of clothing and a considerable sum of old coins which were turned in through S2 channels. All units had closed on OBJ 4 by 221430. (See Figure 1-5, sketch map) The engineers cleared a pickup zone (PZ), so all elements were airlifted back to STALLION for the night. They closed by 221600.

The next day was the final day of this portion of Operation White Wing. (See Figure 1-6, sketch map) At 230742, Company B air assaulted back into LZ EAST and began to work northeast and south down from the high ground, but had no contact and was lifted back to STALLION at 231630. Company D, composed of the reconnaissance platoon and the anti-tank platoon less crew served weapons (approximately 75 men), was airlifted into LZ THUNDER on a ridge line, and deployed to conduct search and destroy operations generally south down through the rugged draws and cross compartments of the mountains east of Song Nuoc Luong River. They found one bunker capable of holding 50 people and one cave, large enough for 30 people, which contained several hundred pounds of rice. They were picked up at the river, 2500 meters south of their start point, at 231530 and airlifted back to STALLION.

Company A had the only contact of the day after it was dropped into LZ REBEL in a draw 2000 meters southeast of STALLION. It also worked down a small tributary to the Song Nuoc Luong River. At 230930 five underground shelters with breathing tubes and five bunkers were uncovered and destroyed, and later five VC suspects (VCs) were captured and evacuated. After destroying four more tons of rice, Company A was extracted at 231715 and also returned to STALLION. Company C had re-
FIGURE 1-6 (U) SKETCH MAP, OPERATION WHITE WING
ACTIONS ON 23 FEBRUARY 1966
mained all day at STALLION as security and battalion reserve.

A lst Brigade warning order was received by the 1/8th Cavalry at 231745 to provide one company for a security mission at the brigade forward CP, BIRD, and subsequently all elements of the battalion were ordered to BIRD. A shuttle system was established and two companies closed on BIRD before darkness. The remainder closed the next morning and prepared to assume new missions in the eastern sector of the brigade AO.

8. COMBAT SUPPORT AND COMBAT SERVICE SUPPORT

Six tactical air strikes were conducted during the period 19-23 February in support of the 1/8th Cavalry's operations. Artillery during the same period fired 2509 rounds, and the aerial rocket artillery in support flew twelve sorties and fired 576 2.75" rockets.

No logistics problems were encountered except for the single medical evacuation incident already described, and a continuing shortage of medium sized fatigue uniforms. Supplies were usually delivered by UH-1D from the FSE direct to the using company. The company executive officer at Phu Cat was in constant touch with the S4, who received the company request and supervised the loading of the company's supplies for delivery. These supplies generally consisted of C-rations, water, hot coffee, and other necessary expendables such as ammunition and radio batteries. These were delivered daily just before dark to each company after the night defensive perimeter had been established. Everything that was not required (empty cans) was picked up at first light the next morning.

9. RESULTS.

a. Enemy Losses:

KIA (body count) - 13
KIA (estimated) - 23
WIA (estimated) - 26
VC Captured - 2
VC Suspects Captured - 15
Weapons Captured - 5
Medical Supplies Captured - 60 pounds
Rice Destroyed - 13 tons
Elephants killed - 1

b. Friendly Losses (the 1/8th Cavalry):

KIA - None
WIA - 6
Equipment - None

1-11
OPERATION HUMP

1. GENERAL.

A Task Force (TF) of the 1st Battalion, 503d Infantry, participated in Operation Hump, an air- and groundmobile search and destroy operation, conducted by the 173d Airborne Brigade from 5-9 November 1965. The AO of TF 1/503d Infantry was roughly the shape of a half circle with a radius of 6000 meters, with the Song Be and Dang Nai Rivers as the eastern boundary (See Figure 1-7, sketch map). This AO was within Tan Uyen District of Bien Hoa Province in War Zone "D", and was approximately 23 kilometers north of the brigade base camp.

2. FRIENDLY SITUATION.

173d Airborne Brigade control elements remained at Bien Hoa.

The 1st Battalion, Royal Australian Regiment (TF 1/RAR) was the only other brigade maneuver element employed in this operation. This unit, under the operational control of the 173d Airborne Brigade, also maintained its base camp within the rear base area of the brigade at Bien Hoa. On D-Day, 5 November 1965, TF 1/RAR conducted an airmobile assault from Bien Hoa into LZ JACK, closing by 051021, and moved to secure the east bank of the Dong Nai River opposite LZ KING (LZ used by TF 1/503d Infantry). LZ JACK was used since last minute intelligence indicated that the planned LZ, QUEEN, had been established as an ambush site by two VC battalions. This unit's AO was south of the 1/503d Infantry's AO.

TF 3/319th Artillery, the brigade fire support element, moved by motor convoy from Bien Hoa to Position ACE. The SP was crossed at 050600 and Position ACE was closed by 050650 with negative contact. Security for the move was provided by E/17 Cavalry, D/16 Armor, tactical air and attached armed helicopters. After arrival at ACE, the battalion registered its batteries in preparation for the helicopter assaults. ACE was as near the AO as the existing road network and surrounding terrain would permit. Because of the distance of the artillery position from the northern sector of the AO, one battery of the Royal Australian Artillery, equipped with the lightweight Italian howitzer, was helilifted into the AO of 1/RAR, vicinity LZ JACK, after the area was secured so as to shift the artillery umbrella forward.

Brigade Task Force Rear consisted of the 2/503d Infantry, the 161st Artillery Battery, Royal New Zealand Artillery (RNZA), and the brigade administrative and logistical units. Task Force Rear provided the brigade reaction force and security for the brigade rear base area.

Special Forces units were concurrently conducting search and
FIGURE 1-7 (U) SKETCH MAP, OPERATION HUMP
ACTIONS 5-8 NOVEMBER 1965
destroy operations NE of the brigade AO.

3. TERRAIN AND WEATHER.

Terrain initially encountered in the AO of TF 1/503d Infantry was low paddy land. As the unit moved north and northwest from the LZ, small hill masses were considered critical terrain because they overlooked the avenues of approach into the area. Movement to the west and northwest disclosed streams with banks of thick undergrowth consisting of many low vines and entanglements. Observation within the stream beds was limited to 5-10 meters. After crossing the streams the undergrowth became less dense and observation increased to about 50 meters. Cover and concealment were excellent and fields of fire generally poor. Many trails were found leading from the hill masses to the Dong Nai and Song Be Rivers. There was a thick double canopy overhead that was virtually without openings; the first canopy reached a height of 40 to 50 feet, while the second canopy level reached to 200 hundred feet.

A heavy ground fog which did not lift until 0830 was responsible for a one-and-a-half hour delay in the D-Day assault landings. During the remainder of the operation, light fog formed each morning, and light scattered showers were common in the afternoons. Weather did not affect any phase of the operation after the first day because the fog and showers were not heavy enough to restrict aircraft flights. Since ground observation was already restricted due to the undergrowth in the area, the fog and showers had little or no adverse effect. Daily temperature range was 78°-90°.

4. ENEMY SITUATION.

Prior to the operation it was estimated that up to three VC battalions were in or near the brigade AO, and that the VC had a capability of massing up to three main force regiments and seven separate battalions (total of approximately 8500 men) within 48 hours. The area was important to the VC as a major point on the communications route between war zones "C" and "D". In addition, aerial photographs disclosed several possible locations of bunkers, trenches, and weapons emplacements, as well as road cuts.

5. MISSION.

The mission of TF 1/503d Infantry was to conduct an airborne assault at 051145 Nov into LZ KING and to conduct search and destroy operations in sector thereafter.

6. ORGANIZATION.

The rifle companies were all organized for combat as provided for in the TOE, except that all 90mm recoills rifles, .50 caliber machine guns, and two of each company’s three 81mm mortars were left in
base camp. Each company carried one 81mm mortar and used the remaining men in the mortar section and other riflemen as ammunition bearers. Additionally each company was augmented by an engineer demolitions team, an artillery forward observer team, and one GVN policeman.

The battalion was augmented by an engineer squad, a radio research unit, a USAF forward air controller (FAC) team, and two more GVN policemen. The reconnaissance platoon, reinforced with the men from the anti-tank section, the Davy Crockett section, and the surveillance platoon, a total of about 65 men. These attachments served as riflemen and grenadiers without their primary equipment which was not taken. Hence, the reinforced reconnaissance platoon could be used as a fourth maneuver element, or for battalion CP security or reconnaissance missions.

The battalion rear guard of approximately 150 men under the headquarters company commander remained at Bien Hoa to coordinate rear support activities and to secure the base camp. It was composed largely of the support platoon, maintenance platoon, personnel section, and heavy mortar section as well as miscellaneous support and administrative personnel.

Brigade fire support to the battalions consisted of two 6-howitzer batteries from the 3/319th Artillery and one 4-howitzer battery, the Royal Australian Artillery Battery. The 145th Aviation Battalion, three separate aviation companies, one aviation platoon and a medical detachment furnished the aviation support for this brigade operation. The US Air Force provided medical evacuation assistance by H-43 helicopters in addition to tactical air support. A special demolitions team was available from the support battalion on call.

7. EXECUTION.

Preceded by intense LZ preparation, on 5 November 1965 TF 1/503d Infantry began the heliborne assault on LZ KING with the arrival of Company A. (See Figure 1-7, sketch map). The remainder of TF 1/503d Infantry had closed by 051335 in three lifts with no contact made by troops on the ground. Some of the helicopters, however, did receive ground fire prior to landing. UH-1D helicopters carried six troops each on the first lift (and seven thereafter), while UH-1B helicopters could carry only five troops each per lift. The primary command group landed with the first element of the second lift. Immediately after landing, TF 1/503d Infantry moved north with Companies B and C abreast to OBJ 1 only 1500 meters from KING. Company A was battalion reserve. The reconnaissance platoon on the right flank screened along the western bank of the Song Be river and established contact with Special Forces personnel. After OBJ 1 was secured, TF 1/503d Infantry established a TF CP, and the remainder of the day was spent clearing the immediate area using platoon sized patrols in assigned company areas. Company B to the north, Company C to the west, Company A to the south, and the reinforced reconnaissance platoon still to the east. No contact was made but several
VC camps and positions were discovered. At 051500, Company B located three fortified positions around an area that was suitable for use as a LZ only a short distance northwest of LZ KING.

The search and destroy mission of each company was conducted keeping two rifle platoon patrols out in assigned areas, with one platoon in reserve and the weapons platoon supporting with the one 81mm mortar. A company basic load of 80 rounds of 81mm mortar (7 WP, 8 Illum, and 65 HW) had been carried into each of the company mortar positions initially. Twenty personnel of each rifle platoon had each carried one round as had ten personnel of the weapons platoon. During the first day a battalion total of twenty rounds of 81mm ammunition was expended.

On 6 and 7 November 1965, TF 1/503d Infantry moved the CP to the vicinity of OBJ 2, 3000 meters northwest of OBJ 1, and continued to search in sector using platoon sized patrols operating from three company bases. These bases were established around the TF CP area about 200 meters out, and communications maintained by wire as well as radio. The reinforced reconnaissance platoon provided security for the CP itself. None of the 81mm mortars was displaced from the company bases. Several bunkers, wells, booby trapped huts, and a tunnel system were found and destroyed but no contact was made. Late in the afternoon of 6 November, the brigade S2 informed TF 1/503d Infantry that intelligence indicated a VC force was located less than 2000 meters to the west of the battalion position. Two squad sized patrols were dispatched just before dark. They soon made contact with the enemy and fixed his position before returning to the battalion area.

8 November 1965 was characterized by intensive fighting and the major action of the operation (See Figure 1-8, sketch map). Shortly after dawn Company C with two platoon abreast, followed by Company B, moved west toward the hill where the enemy's position had been fixed late the preceding afternoon. At 080800, the right platoon of Company C made contact with an enemy force that was occupying a fortified area and a heavy volume of small arms and automatic weapons fire was exchanged. After a brief development, the remainder of Company C joined the engaged platoon. Because of the intensity of fire delivered by the enemy and the types of weapons encountered as the fight progressed, it became evident that a battalion sized or larger force had been engaged. At Brigade it was planned to commit the 2/503d Infantry to relieve the pressure, but insufficient lift helicopters were available. The 1/503d continued to fight without further ground support.

The VC unit attempted to envelop Company C's north flank, and at 080930, Company B moved in from the northeast, immediately encountering heavy automatic weapons fire. After intense fighting Company B successfully restored Company C's right flank. A short time later, however, Company B's own north flank became threatened, and Company A, the TF reserve, was committed with instructions to make contact with the enemy's left flank, but not to become decisively engaged. Company B meanwhile was forced to
FIGURE 1-8 (U) SKETCH MAP, OPERATION HUMP
ACTIONS ON 8 NOVEMBER 1965

FOR OFFICIAL USE ONLY
break the VC encirclement twice. Shortly after noon, Company A was ordered to withdraw to the vicinity of the TF CP some 1000 meters to the rear, while Companies B and C consolidated their position and directed intense artillery fire and air strikes against the enemy. The VC continued to make assaults on their combined position but these were futile and costly.

Most of the enemy contact was made at distances between 15 and 30 meters in the extremely dense jungle area. Thus once contact was made it was very difficult to break or pull back to allow heavy fire support to be brought in on the enemy. Similarly, it was extremely difficult to develop the situation fully and for the battalion commander on the ground to know precisely where each of his forces was located. Hence, whenever the situation could not be developed without excessive personnel losses, the usual tactic was to break contact, strike the enemy with air and artillery fires, and follow up immediately with maneuvering forces. Coordination in this type of operation took on acute importance.

The fighting had been so close during the morning that supporting artillery fires had to be employed generally in depth rather than in close support, and even though only six missions were fired, some 900 rounds were expended. The USAF flew 36 close air support sorties during the major battle. The 1/503d Infantry had continued direct pressure on the enemy's front while his rear and his escape routes were being pounded by artillery and tactical air. Even so, most of the enemy casualties were inflicted by rifle, machine gun, and 40mm grenade fire. Between 080800 and 081500 the battalion fired the following numbers and types of rounds: M79, from 250 to 300 rounds; M60 MG, from 3500 to 4000 rounds; and the 60mm mortar, from 550 to 600 rounds. Most of the riflemen fired 250 to 300 rounds each.

Activity gradually slowed to sniper fire and sporadic machine gun fire by late afternoon and early evening around the perimeter of Companies B and C. The battalion perimeter located 1000 meters to the east was brushed several times during the night by VC elements seeking to withdraw from the battle area, but otherwise no significant contact was made.

During the morning of 9 November 1965, the primary concern was to determine enemy locations and to evacuate friendly casualties from the battle area. Through the preceding night and early morning of 9 November, the 1/503d Infantry troops worked to prepare a landing zone for the evacuation of casualties. Seven power saws were lowered by winch into the area by Air Force H-43 helicopters late on 8 November. Also, an H-43 was able to winch out two casualties before dark. Trees up to 200 feet tall and six feet in diameter were cut down. A funnel 200 feet deep and about 80 feet in diameter was cut into the jungle for casualty evacuation. Each casualty and all equipment that was not needed for the remainder of the operation were flown out of this LZ.
Throughout the day small patrols continued to operate in all directions. It was evident that the enemy had retreated from the battlefield leaving his casualties and a great deal of equipment behind. A VC main force regiment had been effectively destroyed. The reinforced reconnaissance platoon which had continued to screen along the Song Be 700 meters SE of TF CP was extracted first at 091300 using an LZ near the river. The artillery as usual fired suppressive fires during and after this extraction. The other units were similarly extracted, and all elements of the battalion were returned to the base camp near Bien Hoa, closing by 091700 November 1965.

8. COMBAT SUPPORT AND COMBAT SERVICE SUPPORT.

All assault elements of the battalion ate "C" rations during the operation, and maximum use was made of local and natural water resources made potable with purification tablets.

Since Operation Hump was primarily a brigade operation with two maneuver elements (TF 1/503d Infantry and TF 1/RAR), the figures which follow apply to the brigade support rather than pure battalion support for TF 1/503d Infantry.

The USAF flew a total of 117 tactical air sorties, delivering 158.5 tons of ordnance. FAC sorties amounted to 33 with a total of 88 hours flying time. Sixty medical evacuation sorties were flown by USAF H-43 helicopters to either the 3d Mobile Army Surgical Hospital (MASH) or to the Brigade Clearing Company depending on the severity of the wound. Army aviation support for the brigade consisted of heliborne assault lift, armed helicopter support, aerial resupply, and medical evacuation. A total of 1747 Army sorties was flown for the brigade with a flying time of 505 hours. Resupply missions accounted for 278 of these sorties.

Artillery support for Operation Hump was continuous: 5352 rounds of 105mm howitzer were fired in 343 missions.

9. RESULTS.

a. Enemy Losses:

KIA (body count) - 403
WIA - unknown

b. Friendly Losses (TF 1/503d Infantry):

KIA -49
WIA -83
MIA -None
Equipment -None
OPERATION COCOA BEACH

1. GENERAL

On 27 February 1966, at the conclusion of Operation Mastiff, the 3d Brigade of the 1st Infantry Division was placed in division reserve and directed to conduct a battalion-sized TAOR search and destroy operation. Operation Cocoa Beach, conducted by the 2d Battalion, 28th Infantry from 3-6 March 1966 was that operation, a purely ground mobile search and destroy action.

2. LOCATION

In contrast to the others under examination, this operation was performed within the battalion’s portion of the brigade TAOR in the vicinity of Lai Khe, rather than in an AO remote from the base camp. (See Figure II-1, sketch map, Section II.) The brigade TAOR was approximately 625 square kilometers around Lai Khe, the brigade base, the latter being some 35 kilometers northwest of the division base at Di An. The battalion was assigned an operational area roughly 8 X 10 kilometers northwest of Lai Khe, which had not been fully searched since the brigade’s arrival at the base. The only previous activity had been combat patrols operating no further than 5000 meters from the Lai Khe battalion perimeter.

3. TERRAIN AND WEATHER

The operation took place entirely within a rubber plantation. The terrain was slightly rolling with variations in height not exceeding 25 meters. The area was bounded by primary jungle with a tree height of 125 feet. This primary jungle had extremely dense undergrowth making penetration difficult except through a network of established trails. The weather was dry, and temperatures reached the 90’s with a relative humidity of 50 to 70 percent.

4. ENEMY SITUATION

On 28 February 1966, the Q-272 Regiment was reported seven kilometers northwest of Lai Khe. The regiment of 2000 men had attached to it two artillery units, and one battalion of the 165th Regiment. The two artillery units were armed with 81mm and 60mm mortars, heavy and light machine guns and individual small arms. The North Ben Cat company, (C-81), consisting of approximately 80 men armed with individual weapons, was also known to be in the area. A dirt road running from SE to NW across the TAOR had been used as a main supply route by the VC. The capture of two Shell gasoline trucks by the VC in February indicated they had been planning to use motor vehicles. The road was heavily traveled and passable to motor vehicles.
5. MISSION

The 2/28th Infantry was to conduct operations in the battalion TAOR from 3-8 March 1966 to destroy VC, their equipment and emplacements, disrupt their activity, gain intelligence, and interdict supply routes.

6. ORGANIZATION

The rifle companies were all understrength, having an average of only 125 men each. Each company took only one of the organic 81mm mortars and 25 rounds of ammunition on the operation because of weight and mobility problems, leaving the other two tubes in base camp. Similarly all 90mm and 106mm RR's were left behind, as well as all vehicles.

The battalion headquarters force strength was 100 men since, aside from the command and control sections, only the reconnaissance platoon and anti-tank sections accompanied the assault elements. Of the latter two, the reconnaissance platoon was fully foot mobile, and the anti-tank section, stripped of its 106mm RR's, was organized into two demolitions teams. The ground surveillance section remained at Lai Khe covering the battalion perimeter, as did the heavy mortar platoon. Because of the 4.2" mortar range from base camp was insufficient to cover the full operation, the platoon was in general support of the battalion only during the move out and return to camp, while during the operation the platoon was charged with perimeter defense. Continuous 105mm howitzer fire support was provided by Battery C, 33d Artillery (DS), emplaced at Lai Khe. Likewise, USAF close air support was always available.

7. EXECUTION

The leading element of the battalion, the reconnaissance platoon with two scout squads abreast to the west of Highway 13, departed on foot north from Lai Khe at 030700 March, screening the remainder of the battalion which departed an hour later. (See Figure 1-9, sketch map.) Company B was on the left, Company C on the right, with Company A in reserve. The reconnaissance platoon reached PSN 66, 6000 meters north of the start point, at 1130 hours, and the main body closed at 1200 hours. No enemy contact was made during this foot march.

At 031230 the battalion commander decided that PSN 66 was not a suitable position from which to conduct a battalion defense, so he directed the S2 who was in an OH-13 to conduct an aerial reconnaissance for an alternate position. An area was located 1200 meters to the northeast of PSN 66, and designated 66A. The battalion closed on
FIGURE 9(U) SKETCH MAP, OPERATION COCOA BEACH
DISPOSITIONS AND ACTIONS 03 MARCH 1966

FOR OFFICIAL USE ONLY
PSN 66A at 031345, after a ground reconnaissance determined it to be suitable for battalion defensive operations. Each company was assigned a sector to defend. For the rest of the afternoon the battalion prepared defensive positions, and by 1700 hours helicopter resupply was completed. Two helicopters delivered 950 "C" Rations, 470 hot meals in insulated containers, 400 gallons of water, 30 picks and 30 shovels.

At 031930 Company A dispatched a 15-man ambush patrol to a position 800 meters to the south of the CP, and Company B similarly dispatched a 15-man ambush patrol the same distance to the north. On the battalion perimeter, each platoon had a minimum of a two-man listening post manned during the hours of darkness. Prior to dusk all defensive fires were registered by an airborne forward observer. The night of 3 March was spent in the defensive perimeter with no enemy contact.

At 040800, platoons from Company A and Company B departed to conduct platoon sized sweeps to the northwest for 2500 meters where VC base camps and resupply points had been reported. Company C, meanwhile, remained in the patrol base as a reaction force. At 040935 Company A located and destroyed two antipersonnel mines and a bicycle 1500 meters from PSN 66A, and 15 minutes later discovered and destroyed defensive covered foxholes in the area. At 041110, approximately 1500 meters from PSN 66A, a fresh grave with two bodies was discovered. A trail with fresh footprints ran beside it and a fire team, moving to investigate, sprang a VA ambush of platoon size 100 meters further north. The fire team leader, though mortally wounded, charged the ambush with such violence that the VC platoon withdrew. When the main body later entered the ambush area, they disarmed a large VC claymore mine of the command detonated variety which had been placed to cover effectively the killing zone selected by the VC. The mine was detonated by Company A, blowing down small trees 100 meters away.

Company C moved forward to hold the ambush site and provide immediate support to Company A in the event the latter made contact as it moved further west. Company C was also charged with waiting for Company A to return from its western objective, letting Company A pass through, and providing rear security as it moved back to PSN 66A. At 041424 Company A located a VC base camp 2700 meters northwest of PSN 66A. The camp was large enough to support 30-60 men with individual positions and tunnels, and contained some documents, a small amount of food, and mining materials. The camp was partially destroyed, and by 041625 all units closed back on PSN 66A. A description of the VC camp and the documents were sent to the brigade. H&I fires were scheduled on the camp location by the 33d Artillery. It was decided at this time that in the event of a VC attack on PSN 66A, the 33 Artillery would cover the south and west sides of the perimeter, and the Air Force would cover the north and east sides. During the afternoon of 4 March plans were made to advance the next morning to PSN 13, some 7000 meters west of PSN 66A.
The battalion defense that night was substantially the same as it had been the previous night, except that four ambush sites were prepared, one in each direction by the three companies and the reconnaissance platoon. At 042210 one of Company B's LP's was assaulted by a VC throwing hand grenades. The two resultant casualties were evacuated by helicopter by 042245. Illumination was furnished by helicopter after the LZ had been marked by flares. At 050030, an intelligence report was received from brigade stating that there was an unidentified VC regiment located 4000 meters to the northwest. All companies and patrols were alerted.

At 050530 the ambush patrol leader from Company B notified the company that he could hear movement on the road to the east and someone running on the road to the north, so he rearranged his two claymores to cover the eastern road. At 050600 about 100 women and children came into sight on this eastern road where a VC company met them. The women and children were carrying weapons and ammunition and appeared to be taking orders reluctantly. The platoon leader waited until the majority of the company was in the claymore kill zone before he detonated them, and a heavy base of fire was laid down decimating the company. The patrol then broke contact and headed back to the patrol base.

On the return route, the Company B patrol, 200 meters from friendly lines, ran into the rear of another VC company deploying to attack the patrol base. This was reported to the company commander, and the patrol mounted a hand grenade attack breaking through the VC company to friendly lines. At 050610 the ambush patrol from Company A was returning north to the perimeter and also found itself in the midst of another VC company. The patrol leader, deciding that the patrol was too small to engage the enemy, ordered his men to infiltrate into the VC company which was moving towards the perimeter. At a point 75 meters from the perimeter, the patrol broke from the VC company and returned to friendly lines without casualties. The Company C patrol and the reconnaissance patrol returned without contact.

The VC, having lost the element of surprise, began an attack on the outnumbered battalion (approximately 5 to 1) at 050645. At 0650 a request was made for air support. At 0705 the FAC arrived over the battle area, and the first fighter was on target at 0712. The first air strike was directed over the west side of the target, the second on the north side and the third on the east side. The VC meanwhile were attacking in such numbers and with such ferocity that they were seen from the center of the defensive position not more than 30 meters from the edges of the perimeter in all directions. After the first three air strikes, there appeared to be definite evidence that the VC had broken contact. The initial assault had apparently been stopped even though it had been accompanied by a high volume of heavy mortar and .30 and .50 caliber machine gun fire from all directions.
FIGURE 1-10 (U) SKETCH MAP, OPERATION COCOA BEACH
DISPOSITION OF FORCES AT 66A, 050830 MAR 66

1-25
The battalion, however, was running low on ammunition, and the rear CP was notified to be prepared to resupply 81mm mortar, grenade launcher and machine gun ammunition on call. At 050800 when it became apparent that fire had diminished to a few sniper rounds, the resupply UH-1B started into the perimeter. A large volume of fire erupted in the southeast corner of the battle area as the helicopter made its approach. Even though an attempt was made to wave it off as it came in, a hail of small arms, automatic weapons, and .50 caliber fire converged on the ship. After the ammunition had been unloaded, the UH-1B took off, but crashed about 2000 meters from the perimeter, killing all aboard.

The VC meanwhile took the opportunity to build up for another attack. (See Figure 1-10, sketch map). By 050900, one VC battalion was attacking from the northeast, two companies from the east, one company from the southeast, one company from the south, two companies from the west and a portion of a company from the northwest. There were six .30 caliber MG's emplaced in a trench outside the eastern perimeter, one .30 caliber MG in the northwest corner, two .50 caliber MG's in the northeast corner, and three .50 caliber MG's on the east. More air strikes were placed on the north and east sides. During these strikes the Air Force dropped cluster bomb units (CBU) and napalm within 35 meters of friendly troops and broke the attack from the east and northeast. These strikes continued until 051030 when the aircraft were diverted to prepare an LZ for the 1/16th Infantry, to be committed as the brigade reaction force.

By 1200 the enemy was withdrawing in small groups and in all directions, and a pursuit was directed. A platoon from Company A located a VC company digging an ambush position facing a southerly direction 300 meters to the south of the perimeter, apparently expecting the approach of a relief force from the south. The Company A platoon took them under fire but was forced back. A two battery volley with VT fuse was subsequently directed at these VC who were forced to disperse and withdraw.

This was the last major action of Operation Cocoa Beach. At 051530, while the elements of the battalion were searching the battlefield, the 1/16th Infantry who had been directed to sweep west and then south in an effort to cut off the retreating enemy, linked up with the 2/26th Infantry. The night of 5 March was spent with both battalions in the same base camp dispatching platoon sized patrols to ranges of 1000 meters around the perimeter. The next morning at 060900, the 2/26th Infantry was directed to search the battlefield until noon at which time they conducted a search and destroy mission to Bau Bang further west and then down the west side of Highway 13 to their base camp. This operation was conducted by the battalion with no enemy contact, and all elements of the battalion were back at Lai Khe by 061610.

1-26
8. COMBAT SUPPORT AND COMBAT SERVICE SUPPORT

Units departed with two "C" ration meals per individual, and one hot meal per day was available. Supplies and water were sent daily to the forward area by helicopter from the battalion trains at Lai Khe. Transportation was by two UH-1's in direct support daily. Medical evacuation was accomplished by "dust-off" helicopters.

9. RESULTS

a. Enemy Losses:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIA (estimated)</td>
<td>450</td>
</tr>
<tr>
<td>WIA</td>
<td>unknown</td>
</tr>
<tr>
<td>VC Captured</td>
<td>7</td>
</tr>
</tbody>
</table>

Equipment destroyed:

- 4.2" mortar
- 2 81mm mortars
- 3 60mm mortars
- 1 57mm RR
- 4 .50 caliber MG's
- 150 hand grenades

Equipment captured:

- 3 .50 caliber MG's
- 1 60mm mortar base plate
- 1 57mm RR mount
- 1 anti-tank weapon
- 20 SKS rifles
- 1 large medical kit
- 750 rounds .50 caliber ammunition
- 2500 rounds .30 caliber ammunition
- 32 rounds 60mm mortar ammunition
- 3 rounds 57mm mortar ammunition
- 8 rounds anti-tank ammunition
- 30 hand grenades

b. Friendly Losses (the 2/28th Infantry):

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIA</td>
<td>11</td>
</tr>
<tr>
<td>WIA</td>
<td>16</td>
</tr>
</tbody>
</table>
OPERATION VAN BUREN II

1. GENERAL

During the period 17 January to 20 February 1966, the 2d Battalion, 327th Airborne Infantry, was employed with other elements of the 1st Brigade, 101st Airborne Division, in Operation Van Buren, an area security operation, to protect the rice harvest in Phu Yen Province. Operation Van Buren II conducted from 27 January to 2 February is discussed in detail as being typical of one of the 13 battalion operations during the month long period and was characterized by small unit patrolling actions.

2. LOCATION

The 2/327th Infantry was deployed in a battalion AO 10 kilometers south of the town of Tuy Hoa. The base camp and brigade rear of the 1st Brigade, 101st Airborne Division, were at Phan Rang, some 160 kilometers to the south, while a forward brigade CP and forward support element (FSE) had been established on the outskirts of Tuy Hoa. Co-located with the FSE were the battalion trains.

To the north of the battalion AO were elements of the Republic of Korea (ROK) Marine Brigade, and to the south, the 47th ARVN Infantry Battalion.

3. TERRAIN AND WEATHER

The AO was a rectangle oriented roughly northeast and southwest with dimensions of six and 10 kilometers. (See Figure 1-1, sketch map.) Running lengthwise through the AO was the Song Banh Lai River emptying into the South China Sea 10 kilometers to the east. This stream was fordable with difficulty. Traversing the northern third of the AO was an east-west levee and cart track. To the south of the area was a cluster of small hills up to 200 meters in height, covered with medium to thick jungle undergrowth (40 foot canopy). The bulk of the terrain was cultivated rice paddies, recently drained and ready for harvest.

The weather was warm and humid, with a temperature range of 65° to 89°. Almost continuous rain fell during the first two days (27, 28 January) of the operation, with up to two inches on the slopes and one inch in the valleys. The next two days were characterized by light showers, but the following two had none. Visibility was generally good even in the rain, never being less than one mile during daylight. Winds were light but occasionally gusted to 15 knots.

1-28
4. **ENEMY SITUATION**

Intelligence estimates indicated that the 95th NVA Regiment was present in the Tuy Hoa area prior to the arrival of the 2/327th Infantry. The 95th NVA Regiment was held to consist of four battalions, and was supplemented with two or three local main force battalions plus local VC guerrilla forces. The total Viet Cong strength in the Province was thought to be approximately 11,000.

Enemy activity in the area was characterized by sniper fire from well camouflaged trench and bunker positions in woodlines bordering villages and dikes. VC units generally refrained from fighting in larger than squad sized units.

IFW reports from VC captured by the unit indicated that several company and battalion size elements had moved into the AO during December and January. These reports also indicated that a diversity of weapons was being used by the VC units in the area. Mausers, US carbines, and Thompson submachine guns were being used by the local forces, while the CHICOM series of weapons were used by the NVA and main force units. Anti-personnel mines were also encountered. Local guerrilla units in the AO seemed to be integrated with the NVN cadre.

5. **MISSION**

The mission of the 2/327th Infantry, employed in concert with the other elements of the brigade in Operation Van Buren, was as follows:

1. Protect the rice harvest.
2. Locate and destroy Viet Cong forces.
3. Develop hard intelligence, including the Viet Cong order of battle.
4. Destroy enemy groupments and their routes of communications, and uncover their supply caches.

During the specific portion of the operation under discussion (Operation Van Buren II) the 2/327th Infantry's mission was to occupy three company patrol bases within the brigade AO to secure the rice harvest.

6. **ORGANIZATION**

The organization for combat of the rifle companies remained basically unchanged from the TOE, except that all mortars were initially grouped into one provisional mortar battery under the command of 1-30.
the battalion heavy mortar platoon leader. This gave the commander
the capability of massing the fires of all 13 mortars of the batta­
lion for any fire mission. After the company patrol bases were es­
established, each 81mm mortar platoon reverted to the location and control
of its parent company to support it from the patrol base. No 3.5"
rocket launchers were taken.

At the battalion level, the primary change from basic TOE
was the creation of the provisional Hawk Platoon, a 49-man force
composed of the reconnaissance platoon and anti-tank platoon and
commanded by the senior of the two platoon leaders. At times it
was augmented by personnel from the heavy mortar platoon when a larger
force was required. The Hawk Platoon's missions were battalion reserve,
CP security, and collection of information. To accomplish these
missions it was organized into nine 5-man teams, each capable of inde­
pendent patrolling action, with a four man platoon control element
usually located in the CP. These teams could act in concert, as when five
teams (基本上 the anti-tank platoon) secured an LZ for Company C
to establish a patrol base, or they could work independently in satura­
tion patrolling actions in the vicinity of the CP and beyond.

Two command groups were habitually used by the battalions. The
primary group of the battalion commander, the S2, the S3, the sergeant
major, and an RTO usually went into any assault with the lead company.
The secondary or alternate group of the assistant S3 and the operations
sergeant under the battalion executive officer usually followed the
last elements into the forward area prepared to assume command of nec­
essary. The battalion executive officer also directed the employment
of the battalion reserve, the Hawk Platoon, as required.

Two battalions of artillery were in support of all units through­
out Operation Van Buren, but their fires were primarily H&I in nature
or directed at operations other than those conducted by the 2/327th
Infantry. USAF air support was also on call.

7. EXECUTION

As previously mentioned, Operation Van Buren II was primarily
characterized by small unit (squad size) patrolling actions designed to
prevent VC interference with the collection of the rice harvest. Each
rifle company kept two platoons constantly employed in patrolling
actions during daylight hours, with ambush and reconnaissance patrols
at night. Control by the battalion and company commanders was minimal
after patrols left their company bases; the action and counteraction
decisions fell to the patrol leader who was either a lieutenant or a
sergeant. Squad size patrols normally had with them an observer capable
of adjusting mortar (81mm and 4.2") fire, while platoon sized patrols
normally took with them an artillery forward observer. Communication
was predominantly by radio. To reduce individual loads, it became a
normal procedure for each man to carry two "C" ration meals a day with
a supplement of rice for the third meal.

As indicated in the sketch map, the battalion headquarters was located at the eastern end of the AO and secured by the Hawk Platoon. Companies A and B had already established patrol bases by 24 January, and these were located some 3000 meters west and 4000 meters southwest of the battalion CP. Company B's only significant action that day was to secure a C-130 crash site and allow graves registration personnel to extract the remains of the crew.

Company C, just having finished another operation, had to establish a patrol base, and it did this at the western side of the AO, 6000 meters from the battalion CP. The anti-tank platoon was helilifted in to secure the LZ, and by 270810, Company C had begun its movement in two lifts of 10 helicopters per lift to the new base. Minor small arms fire was encountered, but the company closed by 270842.

During the next two days, all companies continued active small unit patrols, the only significant event being the capture of five VC by Company A 2500 meters west of their base near the levee. These were evacuated by the resupply helicopter to the battalion trains area, and then forwarded to the brigade S2 by vehicle.

At 291900, all companies set up night ambush sites along likely avenues of VC movement (See Figure 1-11, Sketch map). Company C established one on the south side of the levee, Company A had one overwatching the Song Banh Lai River, and Company B's bordered the foothills covering the rice fields to the southwest. No enemy contact was made.

While returning to their base the next morning, the Company C ambush patrol was fired on by a VC squad resulting in one friendly KIA and two WIA. The balance of Company C, two platoons, deployed against the VC and killed an estimated three of the enemy. Later that morning, Company C was again involved in a fire fight with 10 to 20 enemy on the western edge of the AO north of the levee. Again two platoons were deployed in the sweep, and one wounded VC was captured. He was subsequently evacuated to the Medical Clearing Company north of Tuy Hoa by resupply helicopter. Three mines uncovered by the sweep were set off by an engineer demolition team.

Company A became involved in three incidents on 30 January. In the morning, reacting to a message that civilians were prevented from securing their rice 1000 meters south of the company base, one platoon found the harvest progressing smoothly. At noon, a similar report from the district chief resulted in no enemy contact. The VC squad had apparently withdrawn at the approach of the Company A platoon. At 1500 hours, solid contact was made in the same area, with a company patrol receiving automatic weapons fire. After a brief fire fight in which mortars were employed, the VC broke contact leaving a
bloody trail.

At 301300 brigade headquarters directed the movement of a rifle company to the extreme southwest corner of the battalion AO for the protection of the rice harvesters. Company C was selected, and after recalling all patrols, it moved out on foot at 301500. Enroute a VC suspect was taken from a tree, and he subsequently confessed to being a VC whose mission was to snipe at allied units. The new patrol base was closed by 301835, and squad sized saturation patrols were again initiated in the area. Sightings were made at 301900 of 26 hostile personnel 500 meters south of the new base, and although artillery was called in, no positive results could be obtained because of the gathering darkness.

On battalion order, Company B similarly moved its patrol base 1000 meters further to the southwest at 1600. This made for maximum coverage of the southwestern portion of the battalion AO with Company C north of the river and Company B to the south. Company A secured the center and northern sectors. (See Figure 1-12, sketch map.)

Early the next morning, at 310330, a herd of cattle unobtrusively moved close to the perimeter of Company C's base, and suddenly three of four hand grenades exploded within the camp. Two friendly casualties were suffered before fire could be returned and 4.2 mortar rounds placed on the VC who had used the cattle to screen their advance. This same tactic was used the next night against Company C, but the cattle were dispersed with mortar fire before they approached to within hand grenade range.

At 310715 January, Company C dispatched a four-man patrol five kilometers southwest of the base to an area purported by a prisoner to be a weapons cache. No weapons were found at that location but the patrol did capture a total of eight VC suspects and several rifles and grenades along the route. All were evacuated by resupply helicopter. Later that evening at 311825, 10 or 12 VC were sighted by a patrol 700 meters east of their base. Artillery fire caused one confirmed VC dead.

The increased action in the far southwest portion of the AO had degraded the ability of the 4.2 mortars to support battalion activities, so at 311120, the entire platoon was helicopted 7400 meters west of the CP to a position just inside the AO along the levee. From here it was well able to support any battalion action by fire. The location was secured by elements of the Hawk Platoon.

Two more engagements took place on 31 January. At 310800, a Hawk Team, while patrolling 200 meters south of the battalion CP,
Figure 1-12(U) Sketch Map, Operation Van Buren II
Unit Locations on 29 January 1966 Showing Ambush Sites
received sniper fire which it returned. The VC broke contact almost immediately, and no casualties were suffered by either side. Just before midnight, an ambush patrol from Company B took under fire a sampan that was moving down the Song Banh Lai River. The fire was returned briefly, but the sampan was sunk, and the three VC in it were judged killed.

All the next day, 1 February, was spent in active patrolling from all company bases. The only incident was the discovery of a buried Mauser Model 98 rifle. Patrolling continued until 020700 when the battalion prepared to assume a new mission, that of relieving elements of the ROK Marine Brigade effective 020800 February.

8. COMBAT SUPPORT AND COMBAT SERVICE SUPPORT

No supply problems were encountered during Operation Van Bureq, and a measure of the success of the supply system was the expeditious movement of over 200 tons of cargo for this battalion. The key to the system was the S4 who established a resupply section directly responsible for obtaining required supplies, moving them to the loading area, and loading them aboard the resupply helicopter.

A typical support action was processed in the following manner. A company commander sent his request for resupply of ammunition to the battalion executive officer over the battalion administrative/logistics radio net indicating his LZ was secure. The executive officer relayed this request to the S4 in the battalion trains area. As the S4 requested aircraft support and assigned a loading dock number (three or four missions could be run concurrently), the supply sergeant rounded up the required supplies. Using 1/2 ton Mules to expedite short haul of the cargo, the ammunition was gathered at the loading dock, as the S4 talked the pilot in to the correct dock. The resupply NCO then supervised the loading of the cargo and handed a written message to the pilot giving the exact requirements of the delivery. After take-off, the pilot established direct contact with the requesting company commander who guided him in to the final LZ.

The battalion trains area was also the location where all second echelon maintenance of vehicles was performed. The maintenance and support platoon of headquarters company functioned in their normal role under the operational control of the S4 as trains area commander. The battalion S1 was located with the trains as well, performing all services to include the processing of some 31 decorations. He also supervised the continuous R&R and leave programs.
9. RESULTS

a. Enemy Losses:
   
   KIA (body count) - 1
   KIA (estimated) - 7
   WIA (estimated) - 1
   VC Suspects - 18
   Rifles captured - 4
   Grenades captured - 2
   Mines destroyed - 3
   Sampan destroyed - 1

b. Friendly Losses (The 2/327th Infantry)

   KIA - 2
   WIA - 5

   Enemy casualties and equipment damaged, however, reflect only a partial summary of the results achieved by the 2/327th Infantry during the operational increment (Van Buren II). More worthy of note is the fact that during preceding years, the GVN had realized a maximum of only 9000 tons from the rice harvest, but because of brigade actions on Operation Van Buren, the rice harvest available to the GVN from this area amounted to 30,316 tons.
1. GENERAL

Operation Happy Valley, conducted from 13-31 October 1965, was typical of extended area clearing and securing operations in a TAOR, those conducted with an intention to remain in and pacify an area. The action involved two brigades of the 1st Cavalry Division in the first phase, domination, but the second two phases, reconstruction and consolidation, were accomplished with only one brigade. The 1st Battalion, 5th Cavalry was involved in all phases including follow up civic actions.

2. LOCATION

The operation took place in the Vinh Thanh Valley just inside the northeast edge of the 1st Cavalry Division's TAOR roughly 20 kilometers from the An Khe division base. (See Figure II-2, sketch map, Section II.) Because of its proximity to the base, and because the valley was controlled by the VC, it was a serious threat to the division's security, requiring not only the destruction of VC, but permanent pacification as well.

3. TERRAIN AND WEATHER

The Vinh Thanh Valley runs north and south, two to five kilometers wide and 20 kilometers long. The Song Can River, flowing south through the valley then east to the South China Sea, has many small streams emptying into it from the sharp ravines extending deep into the rugged surrounding hills. Hence, movement through the thick undergrowth on the slopes was made doubly difficult. The bottom of the valley floor, however, is relatively flat, having patches of grazing land interspersed among and on the edges of the paddies. Heavy rainfall often causes flash flooding, and temperatures as well as humidity are consistently high.

4. ENEMY SITUATION

In March, 1965, an influx of VC to the valley started, and with them came a large increase in frequency of acts of terrorism. Forts, schools, churches, bridges, and other buildings were methodically burned. By May, VC domination was complete; the former village and hamlet leadership had been destroyed or discredited, and the population reorganized. Propaganda, recruiting, and food assessment teams were created and active. Because of the lack of SVN or US Army influence in the area, intelligence was minimal, and the battalion was required to develop the majority of its own information.
The mission of the 1/5th Cavalry was to provide security for Batteries A and C, 77th Artillery, and Company B, 8th Engineers, during the construction and establishment of a US Special Forces camp to pacify the valley through offensive military operations, and to establish and conduct psychological and civic action programs.

6. ORGANIZATION

All assault elements of the battalion travelled as lightly as possible so as to increase mobility in the rugged terrain. Even so, the only major change from TOE in rifle company organization for combat was that each company carried only one of its 81mm mortars. The others were left at the battalion base.

The combat support company was used as an additional maneuver element. Composed of the reconnaissance platoon, the anti-tank platoon, and elements of the heavy mortar platoon and company headquarters, it was frequently given missions as a blocking force into which other rifle companies maneuvered the enemy. It was also used in other roles, such as security for the CP and adjacent units, and for eagle flights and as a battalion quick reaction force. When the company fragmented for smaller unit missions during the latter phases of the operation, the reconnaissance platoon, with some national police attached, was used in patrolling and LZ reconnaissance. The anti-tank platoon was employed by section, with two .50 caliber MG's per section, for perimeter defense. The 106mm rocket launchers were roadbound and hence not employed extensively except for limited H&I fires. The mortar platoon usually remained at the battalion base in general support of the battalion. It did, however, displace four times to support company sized operations.

Attachments at the battalion level consisted of IFW personnel, a psychological warfare team, an AN/PPS-4 radar team, and several national policemen who were often further attached to the companies. Additionally, a scout team with two H-13 helicopters from the 1/9th Cavalry, and a tactical air control party augmented the battalion.

Artillery support was provided by Batteries A and C, 77th Artillery, and aerial rocket artillery (ARA) from the 2/20th Artillery was on call. Company B, 8th Engineers, responsible for building the Special Forces camp, was often able to provide support for civic action programs.

7. EXECUTION

Operation Happy Valley was divided into three distinct phases:

(1) Domination, from 13-19 October.
(2) Resettlement and Reconstruction, from 20-25 October.

(3) Consolidation, from 26-31 October.

a. DOMINATION (13-19 OCTOBER)

This phase was characterized by a massive show of force in the more heavily populated (southern) sections of the valley (two brigades participated) and air assaults of one and two company size conducted daily against known or suspected VC locations. Companies rotated as battalion reserve. These operations were generally carried out in the same fashion as the company assaults during Operation White Wing, previously examined. As the VC withdrew, emphasis shifted from the southern end of the valley to the north.

A battalion perimeter was established from which company operations were conducted at increasing distances from the base. Each operation usually lasted from one to three days covering an area from 3000 to 5000 meters in length and 1000 meters in width. Most of the movement was over rice paddies, through hamlets, and up the fingers of surrounding land. Where extensive operation in the hills was involved, however, a maneuver element would be helilifted to the high ground, then would work down towards a prepositioned blocking force in the valley covering the natural and expected routes of VC withdrawal. Many camps and several battalion VC training camps were discovered and destroyed.

Because of the extended and flexible nature of the operations, control was usually maintained solely by radio, sometimes employing long wire and half-rhombic antennas. The battalion commander usually directed operations from an airborne command post, having at his disposal in the UH-1D an AN/PRC-25 and an AN/ARC-122 (console).

Preparatory fires on each LZ were considered responsible for the extremely light resistance found. Only two incidents of minor and sporadic sniper fire were reported by assault elements on landing. Such thorough preparation required a high degree of coordination. Precise timing was also necessitated by the short flight time between the pick-up zones (PZ's) and LZ's. Air strikes normally lasting 20 minutes were followed by intensive 105mm howitzer fire for two or three minutes. After the tube artillery, ARA was on target within seconds, followed by the "slicks," the troop ships. Gunships swept the surrounding area with fire as the troops landed, and then covered their deployment. No orbit areas for the slicks were used because the narrowness of the valley would have made them more vulnerable to small arms fire from the surrounding hills.

Only for certain eagle flights was the artillery preparation dispensed with. An eagle flight, as the name implies, is a rapid reaction force whose employment is characterized by lack of pre-
planned LZ's and the acceptance of limited fire support. Normally
the battalion reserve or an element of it is used in this role. The
team of air scouts from the 1/9th Cavalry or the airborne unit com-
manders themselves were often able to spot VC suspects fleeing areas
where air assaults and operations were taking place. Information
obtained in this manner was immediately transmitted to the eagle
flight commander who was able to apprehend the suspects. On 25
October, the reconnaissance platoon made a typical eagle flight
operation by landing two small forces, a sweeping and a blocking force,
to successfully seal off and clear a hamlet into which VC suspects
were seen moving.

Several problems were encountered during operations. One
was caused by a heavy rainfall which led to a rapid rise of streams
and the river to the flash flood stage. Units attempting to cross
the previously fordable streams found the route closed on their re-
turn. Several weapons and other equipment were lost in crossing
operations; thereafter all unit crossings and extractions upon com-
pletion of missions were made by helicopter.

A further problem was the logistics of evacuating rice
caches and captured VC and VC suspects. A standby force was created
consisting of two UH-1D helicopters and one squad equipped with sacks
and shovels kept on alert at the battalion CP. By using this team to
sack and evacuate rice, and guard and evacuate VC, ground units were
permitted to continue their operations at a faster pace.

b. RESETTLEMENT AND RECONSTRUCTION (20-25 OCTOBER)

During this phase, active operations continued, though on a
smaller scale. Emphasis was laid on psychological measures designed
to increase the confidence of the population and encourage the former
inhabitants to return, resettle, and reconstruct the hamlet and village
complexes.

The engineer company opened up 15 kilometers of valley road
which had been cut with road blocks and trenches by the VC. The
company then moved heavy equipment up the road to start building the
new Special Forces sponsored Civilian Irregular Defense Group (CIDG)
camp. As the construction of the camp progressed, it became evident
to the people that a permanent stabilizing force would remain in the
valley, that security would not vanish bringing on return of the VC
as soon as the American troops left. Gradually the people's confidence
was gained, and some of them began returning to the upper reaches
of the valley.

Gaining the confidence of the people was no easy task.
Initially, at the first sight of a helicopter or of US troops.
Large numbers were seen at the start of the operation coming down
from the hills early in the morning, gathering possessions and rice,
and departing the area by mid-afternoon. With the opening of the road, the arrival of two CDIG companies at the camp, and the waning VC influence, the mid-afternoon exodus stopped, and large groups of people (several in excess of 250) came north up the road with their possessions to resettle.

Helicopters equipped with loudspeakers were used to broadcast messages to the people, to encourage their return to the hamlets, to explain the newly imposed curfew, and to disseminate other items of local interest. Apart from the obvious success which these helicopters had in influencing the populace, it is interesting to note the VC reaction to them. The VC tried to drown out the broadcasts by banging on pots and pans. They also shot at the helicopters, something they did not normally do since the VC had learned that shooting at helicopters generally brought return fire of far greater intensity. Shooting at the helicopters did have the effect of making them fly higher, thus degrading somewhat their effectiveness.

The control of movement of personnel in the valley was an essential element to reconstruction. During daylight hours, aerial observation and saturation patrolling effectively monitored all movement. During the curfew hours (from 1930 to 0630 hours daily) and periods of reduced visibility, the AN/PPS-4 radar teams were able to pinpoint movement. At night the searchlight helicopter from the 2/20th Artillery (ARA) was called in to illuminate the sighting, and 105mm rounds illuminated the surrounding area. Further, HE rounds were placed on the hill masses nearby. This so impressed curfew violators that all movement virtually ceased.

Meanwhile daily air assaults of platoon and company size were continued, and small unit saturation patrolling and night ambushes were increased. Overnight company patrol bases were established. After units were prepositioned in blocking or intercept positions prior to daylight, feint assaults with empty helicopters were used to force small VC elements to withdraw from the hamlets and move toward prepositioned ambushes. HE fires were moved off the valley floor and into the hills and stream beds where known VC camps and ambush sites were located. Maximum measures were taken to preclude unnecessary damage and injury to personnel and livestock.

Coordination with the district and former village chiefs was maintained, and national police who were former residents of the valley were used to the maximum to reestablish a civil police structure and point out VC suspects.

c. CONSOLIDATION (26-31 OCTOBER)

Daily saturation patrols continued with squads. In general, platoon patrol bases were established. Psychological warfare
and civic action programs took on momentum. These were primarily planned and supervised by its S2 and the S3.

The nonavailability of a ground loudspeaker system and maintenance difficulties with the loudspeaker helicopter hampered the psywar operations somewhat, but the program nevertheless was very effective. Explanations of curfew and the American presence in Vietnam, announcements of the sick call program and Operation Friendship, and urgings for the VC to surrender were all missions undertaken by this aircraft. In addition, over 5000 leaflets were distributed.

A medical program was initiated that proved most effective. Only seven patients were treated the first day, but by the end of the period 40 to 60 patients a day were being treated by the battalion surgeon for a variety of wounds and illnesses. A total of 891 civilians were treated at the battalion dispensary, not including the many treated by company aidmen during operations.

Local construction and rebuilding of a church, some public and private buildings, and several sections of road in the hamlets all served to increase the goodwill of the people.

The culmination of Operation Happy Valley was a ceremony known as Operation Friendship in which the district chief, several local Vietnamese dignitaries, and the battalion commander all made speeches. The ceremony was opened with a concert by the division band, and closed with the distribution of 550 pounds of CARE clothing, large quantities of milk, orange juice, salt, candy, sewing kits, and "C" ration accessory packs.

A measure of success of the program was the marked increases towards the end of the operation in the number of village informants and policemen who came forward to give information concerning VC locations, key VC leaders and tax agents, and rice caches.

8. COMBAT SUPPORT AND COMBAT SERVICE SUPPORT

No significant logistical problems were encountered except for a shortage of soap and medical supplies to support fully the civic action program. A total of 900 hours was flown on troop lift and resupply missions.

Ammunition expenditure in support of the 1/5th Cavalry's operations was as follows:
### 9. RESULTS

e. Enemy Losses:

<table>
<thead>
<tr>
<th>KIA</th>
<th>- unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIA</td>
<td>- unknown</td>
</tr>
<tr>
<td>VC Captured</td>
<td>- 15</td>
</tr>
<tr>
<td>VC Suspects Captured</td>
<td>- 74</td>
</tr>
</tbody>
</table>

**Equipment destroyed or captured:**
- Several tons of rice
- Several camps, training sites and tunnels
- Medical supplies
- Individual and crew served weapons

b. Friendly Losses:

<table>
<thead>
<tr>
<th>KIA</th>
<th>- 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIA</td>
<td>- 0</td>
</tr>
</tbody>
</table>

---

1-43
NEW REQUIREMENTS FOR NON-STANDARD
AND DEVELOPMENTAL ITEMS FOR
THE 1ST CAVALRY DIVISION (AIRMOBILE) (U)

1. (U) Department of the Army letter AGAM-P(K) (30 Dec 65) ACSFOR, dated 3 January 1966, subject: Procedures for Expediting Non-Standard, Urgent Requirements for Equipment (ENSURE), gives authority and establishes procedures for forwarding direct to the Department of the Army (ACSFOR) new materiel requirements to support US Army Vietnam forces.

2. (C) The following materiel requirements have been submitted by 1st Cavalry Division. The status of action taken is as of 16 March 1966. (*Items approved by ACSFOR.)

- *Auxiliary Power Unit for UH-1B
  Requirement stated to ACSFOR on 21 Dec 65. Five generators delivered to 1st Cav Div on 19 Jan 66 for evaluation. 1st Cav Div accepted the five generators as an interim solution on 13 Mar 66.

- *Personnel/Cargo Lowering System for Helicopters
  Equipment due in Apr 66.

- Treetop Canopy Platform
  Six systems to be evaluated as soon as available. Estimated completion date 1 Jun 66.

- *Site Marker Balloon
  Equipment due in Apr 66.

- *Dust Palliation
  Team arrived from DA on 23 Feb 66 to study problem and recommend solution.

- *Remote Area Mobility System, M-116
  Requirement stated to ACSFOR 4 Feb 66.

- *Airborne Searchlight
  Xenon light systems to be used.

- *Barbed Tape
  Equipment due about 1 May 66.

- Image Intensification Devices (Starlight Scopes)
  Items presently undergoing combat evaluation.
Image Intensification System for Helicopter Night Operations

*Position Marker, PM

*Cartridge, 40mm Multiple Projectile, XM576

*Cartridge, 40mm, White Star Parachute, XM583

*Cartridge, 40mm, White Star Cluster, XM585

*40mm Launcher Attachment XM148 for the XM16E1 Rifle

40mm Manually Operated Grenade Launcher

40mm High Velocity Automatic Grenade Launcher

40mm Low Velocity Automatic Grenade Launcher

*Cartridge, 105mm, Antipersonnel (BEEHIVE), XM546

Flame Projector, Hand Held, One-Shot, Expendable (LWL #02-C-63)

*Electroluminescent Runway Marker System (LWL #05-C-65)

*Grain Study (LWL #02-C-64)

*Smoke Screen, Troop Landing (LWL #04-F-64)

Requirement stated to ACSFOR on Feb 66 for five systems to be evaluated. Systems will arrive in VN in Apr 66.

Estimate evaluation quantities to arrive by 31 Dec 66. (See XM583 and XM585 Below.)

Equipment due in by May 66.

Rounds are presently arriving. This round is interim solution to requirement for Position Marker, PM, above.

Rounds are presently arriving. This round is interim solution to requirement for Position Marker, PM, above.

First delivery expected in Jun 66.

Test quantity requested for evaluation.

Test quantity requested for evaluation.

Test quantity requested for evaluation.

Requirement stated in Sep 65. Cav Div completed evaluation of 188 rounds in Jan 66.

ARPA test scheduled in Jul 66 to be expedited.

AMC directed procurement of 14 on 15 Feb 66.

Awaiting DA decision on use.

ACSFOR approved requirement on 10 Jan 66.
*Battlefield Illumination (LWL #03-F-64)

Tentative delivery date is 1 Aug 66.

*Free-Drop Water Container (LWL #05-S-64)

AMC directed procurement ASAP.

*50 Gallon Collapsible Water Bag

On 4 Mar 66 ACSFOR directed AMC to procure bags.

*Individual Water Filtration Device (LWL #11-B-63)

ACSFOR approved request on 27 Dec 65.

*CAR-15 Submachine Gun

ACSFOR approved request on 11 Feb 66. Delivery begins in Jul 66.

*Hand Held Strobe Lights

ACSFOR approved request on 3 Jan 66.

Sniperscope

Requirement stated to ACSFOR on 12 Mar 66.

Long Range Survey System

Requirement stated to ACSFOR on 14 Mar 66 for one system to be evaluated.
LIST OF ESSENTIAL ELEMENTS OF ANALYSIS

INTELLIGENCE

EEA 1. Are sufficient staff personnel provided to accomplish, on a continuing basis, the required planning, directing, processing, and dissemination functions for the production of intelligence?

EEA 2. Can lighter, less bulky equipment, including non-standard and reconfigured items, be substituted to increase efficiency or capabilities of intelligence means?

EEA 3. Are communications means sufficient to support the requirement for directing the collection effort and reporting and disseminating intelligence?

EEA 4. Are the passive and active counterintelligence measures sufficient to enable the combat unit(s) to deceive or deny the enemy information about their activities?

EEA 5. Are the aerial surveillance means effective in acquiring, identifying, and reporting enemy activities within each organization's operational area?

EEA 6. Are ground surveillance devices and personnel sufficient to fulfill the combat unit(s) ground surveillance requirement?

EEA 7. Are personnel and equipment sufficient to perform the target acquisition function for the combat unit(s)?

EEA 8. Is sufficient weather information available to the combat unit(s) for support of continuous operations?

EEA 9. Are the organic capabilities for battlefield illumination sufficient to meet the requirements for night operations?

EEA 10. Are personnel and equipment sufficient to conduct reconnaissance for the combat units(s)?

EEA 11. Is the military intelligence detachment, as organized, capable of providing the specialized intelligence support required?

EEA 12. Have the attached USASA units effectively provided USASA type support (signal intelligence and signal security)?
EEA 13. Not used.

MOBILITY

EEA 14. Are the organic mobility means (aircraft, ground vehicles, and foot) provided for the maneuver/movement requirements of combat, combat support, and service support elements suitable to the operational environment and sufficient for the type units in Vietnam?

EEA 15. Are the organic and supporting mobility means (aircraft, ground vehicles, and foot) of the units involved in this evaluation responsive to the maneuver/movement requirements of combat, combat support, and service support?

EEA 16. Is the mobility of a maneuver battalion of a division/separate brigade having an organic air movement capability superior to the mobility of a maneuver battalion of a division/separate brigade which must depend upon supporting/attached aircraft?

EEA 17. Do Army aircraft have sufficient night and all-weather capability to support airmobile operations when required?

EEA 18. Is the survivability of aircraft a serious limiting factor in airmobile operations?

EEA 19. Is it desirable to substitute armored personnel carriers for wheeled vehicles as general purpose vehicles, prime movers, or weapons carriers?

EEA 20. Has the requirement for ground mobility after delivery of the airmobile force into the objective area generated any new requirements for specialized tactical vehicles or other equipment?

EEA 21. Can the number of ground vehicles currently authorized the division/brigade be decreased without degrading tactical mobil

EEA 22. Do the organizations' combat support and service support units have the organic mobility capability to fragment their operation and provide the required support to battalions/brigades?

EEA 23. Does the present individual equipment required for extended dismounted and airmobile operations affect the soldier's ability to maintain the required degree of foot mobility?

EEA 24. Can lighter, less bulky equipment, including non-standard and reconfigured items, be substituted to increase efficiency or capabilities of mobility means?