October 4, 1993

Dear Mike

This is a complete Final Report-Airmobile Operationsin support of LAM SON 719 from the 101st Airborne Division. It was classifed Confidential for 12 years and declassified in 1983

Some of the items sent yesterday, First class, in a box are clearer in the final report.

More to follow.

Mike

VOL II
missing pages
I-11 thru I-44
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FINAL REPORT

AIRMOBILE OPERATIONS IN SUPPORT OF OPERATION LAMSON 719
8 February - 6 April 1971

REFERENCE DATA

15 May 1971
Republic of Vietnam

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REFERENCE DATA

SECTION I
INTRODUCTION

A. (U) BACKGROUND

The reference data compiled herein are derived in part from seminars conducted at Khe Sanh under the chairmanship of the Aviation Group Commander immediately following selected combat assaults. The objective of these seminars was to methodically review each one of the major combat assaults to reconstruct and record in narrative fashion what actually happened and to derive the lessons learned. Also included in the compilation are selected interviews and resumés of activities to include pertinent statistical summaries not included in the basic volumes of the Final Report.

B. (U) LIMITATIONS

This volume is not an integral part of the Final Report itself. It includes personal observations and deductions attributed to identified individual members of the seminar or to selected interviewees. These observations are not necessarily subscribed to by all participants nor do they represent any official view. The data herein does represent, in many instances, eyewitness accounts and first hand source material not available anywhere else. It is felt that this material may be valuable to the researcher of airmobile operations in the hostile environment encountered for the first time in support of LAM-SON 719.

SECTION II
COMBAT ASSAULT
LZ LOLO
3 MARCH 1971

A. (C) GENERAL

1. CONCEPT

The original LAMSON 719 plan called for an armored thrust with its axis of advance along Route 9 to link up with an airmobile assault which would be placed close to Tchepone, the final objective. The stiff resistance encountered by the armored column to the west and north of A LUOI coupled with the decision to fully search cache sites uncovered by the ground troops north and south of Route 9, dictated a change in the overall plan. The line of progress at the end of Februar was along a north south line running from LZ 31 (XD 5145) on the north to A LUOI (XD 5239) on Route 9, south of LZ BROWN (XD 5035) on the southern escarpment. In order to regain the momentum of the attack toward Tchepone, the I Corps Commander directed the 1st ARVN Infantry Division to conduct a series of airmobile assaults along the east-west escarpment south of Route 9. A series of fire bases and staging areas were to be established leading to a thrust into the Tchepo area from the south on March 6. The 1st ARVN Inf Div plan called for a series of four airmobile assaults with accompanying artillery along the escarpment into LZ's LOLO (XD 4337), LIZ (XD 3739), SOPHIA 2 (XD 3440), and HOPE (XD 3545).

2. MISSION

The first step in the revised plan was LZ LOLO (XD 431372) on 3 March. The mission was assigned to the 1st Regiment, 1st ARVN Inf Div to secure LOLO and establish a Forward Operational Base to support future operations to the west and south. The plan included a combat assault of the 3rd Battalion, 1st Regiment, to be followed by the regimental headquarters, the regimental reconnaissance company and an engineer company with two bulldozers. The engineers were to spend two hours preparing artillery positions prior to the insertion of the 1st Battalion, 1st Regiment, six 105mm howitzers, and four 155mm howitzers. There were no other troop moves scheduled in the 1st ARVN Inf Div or the I Corps area of operation on 3 March. Resu

lifts were scheduled and flown to other locations in the Corps area during the day.

3. WEATHER

Visibility on 3 March was a significant factor for the combat assault on LOLO. The original flight route was to be along the escarpment at about 5500 feet. The poor visibility along the excarpment was one of the factors which required the flight route to be moved into the valley to the north so that bends in the river could be used as navigational aids.

B. (C) EXECUTION

1. ENEMY SITUATION

The air cavalry worked the general area of LOLO about a week prior to the assault and located three 12.7mm positions about one kilometer south of the intended LZ. An aircraft was shot down about two kilometers south of the area during the previous day and numerous hootches and recently used trails were observed. The general area was influenced by elements of the 33d Binh Tram, the 27th Company of the 14th NVA Antiaircraft Battalion, and the 35th NVA Engineer Battalion. Ground fire consisted of small arms, 12.7mm machine guns, and 37mm antiaircraft fire. There was at least one 37mm position one kilometer north of the LZ and numerous 12.7mm positions strung along the escarpment covering the river. Fire was reported by aircraft from all directions around the LZ.

2. COMMAND AND CONTROL

The chain of command for the combat assault on LOLO was from I Corps and 1st ARVN Inf Div located at Military Post near Khe Sanh to the 1st Regiment located at FB DELTA (XD 647300) and then to the battalions that were being inserted. The 3d Battalion was scheduled for the initial assault, to be followed by the 1st Battalion. The Ground Commander (GC) was the commanding officer of the 1st Regt, 1st ARVN Inf Div. The Air Mission Commander (AMC) was the CO, 223d CAB. The PZ was controlled by the S-3, 223d CAB

who was also the alternate AMC. The AMC proceeded to the LZ area at first light to observe the reconnaissance by elements of the Cav and to observe the airstrikes, which were scheduled to go into the area prior to LZ time.

The primary radio net for command and control of the lift ships by the AMC was the UHF net. All aircraft were to moniter the command UHF frequency for information regarding the coordination between the AMC and flight leaders. The VHF net was used as a link between the AMC and all airborne fire support elements (air cav, ARA, escort gunships, and the FAC). The FM radio net was also used as a communications link with the FAC. The individual companies maintained internal control of their flight on their own assigned VHF and FM frequencies.

The GC had one UHF radio and two FM radios at his disposal in the console of the C&C aircraft. The UHF radio was available to moniter the progress of the flight. One of the two FM radios was used by the GC's Artillery Liaison Officer. The other FM radio was used by GC to communicate with his ground elements.

3. RECONNAISSANCE

B Troop, 7th Sqdn, 1st Cav, OPCON to the 2d Sqdn, 17th Cav received the mission for visual reconnaissance and preparation of LZ LOLO. B Troop reconnaissance teams consisted of two AH-1G Cobras for reconnaissance effort and one UH-1H Command and Control helicopter for coordinating the reconnaissance effort and the LZ preparation. The Cav troop commander elected not to use the LOH observation helicopter because of the intensity of antiaircraft activity known to be in the area. Previous experience from earlier operations in LAMSON 719 demonstrated the vulnerability of the LOH to fire from heavy caliber weapons. B Troop relieved their reconnaissance teams on station to provide continuous support. Cav reconnaissance teams had worked the length of the ridge line from east to west one week prior to the insertion on LOLO. The reconnaissance teams did not concentrate on any specific area. The Cav detected recent activity with continuous movement into the area south and west of LOLO. The Cav estimated a possible NVA company or battalion size unit operating in the area. On 2 March, one day prior to the insertion, B Troop performed a visual reconnaissance mission to select the LZ at LOLO

and gave a written report to the 1st ARVN Inf Div. The report included coordinates and descriptions of the primary and alternate LZ sites. Diagrams depicted the LZ and obstacles that were present. An approach route was recommended from the north or northeast and the departure route was recommended to the northeast or the east. B Troop had not reported any fire in the vicinity of LOLO; however 12.7mm fire was received farther south. B Troop was briefed by the AMC and was given control of TAC air to coordinate the preparation of the LZ. Once the airstrikes were being employed, B Troop screened to the south and west of the LZ. Just prior to and during the insertion, B Troop was directed by the AMC to provide security three to five kilometers to the south and west. B Troop was directed to move to several different areas throughout the insertion. The insertion was not completed until the following day.

4. STAGING

The staging of aircraft for the assault on LOLO took place at the Lagger Pad, Khe Sanh combat base. The aircraft involved were to report to the Lagger Pad between 0800 and 0830 hours on 3 March 1971 and shut down for a crew briefing by the S-3, 101st Avn Gp. At 0930 hours the aircraft under the control of the flight leaders departed the Lagger Pad as a flight and proceeded to the PZ.

5. PICKUP ZONE

The PZ to be used for the assault on LZ LOLO was FB DELTA. Thrity minutes prior to PZ time, the regimental commander sent word that the PZ had been changed. The PZ was changed from FB DELTA (XD 646300) to a field location described as being 2000 meters from DELTA on an azimuth of 300 degrees. The actual location of the PZ was 1500 meters from DELTA on a 290 degree heading.

The PZ was under the control of the S-3, 223d CAB in a C&C aircraft. The C&C preceded the flight to the new PZ to establish the exact location. Although the flight leader was assisted by the C&C, he experienced some difficulty in locating the PZ. This delay and the fact that the troops took longer to load than was anticipated caused the flight to bunch up. To avoid becoming too close together, the flight began to swing further to the south and west in an attempt to lengthen the flight path and maintain their separation. This path took the flight over previously unknown enemy positions.

Approximately fifteen aircraft landed on the PZ without taking fire. The remaining aircraft in the flight received fire from southwest of DELTA. One aircraft was shot down and destroyed as a result of this fire. There were three crew members picked up by a chase aircraft and one by a dustoff aircraft. No enemy fire was encountered in the PZ itself but had it not been necessary to change the flight route, the pickup of the troops might possibly have been accomplished without incident. Once the aircraft were able to return to the planned flight route, the enemy fire ceased. The additional pickup of the elements of the 3d Bn, 1st Regt from this field location was completed without incident.

6. FIRE SUPPORT

Planned preparatory fires for LZ LOLO consisted of a general LZ prep by heavy artillery from the 108th Artillery Group late on the night of 2 March. Additional preparatory fires were planned including ARC LIGHTS during the early morning of 3 March; tactical air strikes from 0715 to 0930 hours; and an artillery preparation consisting of ARVN 155mm fire from DELTA 1, US 175mm fire from the 108th Artillery Group from TABAT commencing at 0930 hours, and an ARA prep from 0956 to 1000 hours.

The 108th Arty Group fired a general LZ prep from 2214 to 2304 hours on 2 March consisting of fifty-six 175mm rounds. Thirteen ARC LIGHTS were planned for 3 March, eight requested by XXIV Corps and five by I Corps, none of which were planned in the vicinity of LZ LOLO. I Corps later diverted ten of the orginal thirteen, but only one was diverted to the vicinity of the LZ. That ARC LIGHT was executed at 0455 hours. At approximately 0700 hours, B Troop, 7/1 Cav arrived on station to identify targets for FAC controlled tactical air strikes. At 0800 hours the AMC arrived at the LZ and found that no TAC air had been employed. The AMC attempted to contact the FAC without success. The AMC contacted HILLSBORO, the airborne USAF command and control center, requesting information on the absence of TAC air and was informed that the air had been diverted. Immediately following this notification, contact was established with the FAC and the first airstrikes began at 0838 hours. From 0838 to 0944 hours, four sets of TAC air with Daisy Cutter and conventional bombs were employed for LZ construction and neutralization of enemy positions. Numerous air strikes were employed for troops in contact throughout the day. At approximately 0930 hours, ARVN 155mm howitzers from DELTA 1 prepared the LZ with 489 rounds until 0956 hours. No heavy artillery from the 108th

Arty Group was used during the actual prep of the LZ, but 175mm artillery from the 108th was employed on planned targets three kilometers south of the LZ commencing at 1040 hours. The final phase of the preparation for the combat assault was carried out by the ARA from 0956 to 1000 hours working in conjunction with the Cav teams on station.

The 4/77th provided two sections of ARA (station time 0945) to provide fire support for the combat assault. The ARA fired a preparation directly on the LZ and also fired a preparation on the approach axis into the LZ. Once the preparations were fired, the ARA went into a CAP of the area to answer calls for fire from the ground elements or to engage enemy antiaircraft positions. When the enemy gunners engaged the lift aircraft, the fire of ARA was not called for since the source of the enemy fire could not be determined.

7. PICKUP ZONE TO LANDING ZONE

The flight of 35 UH-1H lift ships departed the PZ under the control of the AMC, CO 223d CAB. The flight route was from the PZ to DELTA 1 to BROWN with a straight-in approach along the escarpment to the LZ, landing to the west. This flight route was chosen to avoid the northern face of the escarpment, which was suspected to contain dug-in antiaircraft positions. This route was used for the first two lifts into the LZ. For the third, fourth, and fifth lifts, the flight route was changed to north of the LZ. From the release point the flight flew due south to the LZ with a right break landing to the west. This change was made because of the high intensity of enemy fire along the original final approach path and the reduced visibility caused by the smoke from fires surrounding the LZ. These fires were started by airstrikes which were preparing the LZ.

The enroute altitude was between 5500 and 7000 feet. Gunship coverage of the lift aircraft during the flight route was provided by ARA and Cav aircraft to and from the rearm/refuel point. The prescribed separation between lift aircraft was thirty seconds.

8. ASSAULT

The assault on LZ LOLO on 3 March 1971 consisted of three separate attempts to insert the 3d Bn, 1st Regt. The first and second attempts were aborted as a result of intensive direct and indirect fire. The LZ area received additional preparation by TAC air and armed helicopter gunships after each of these attempts.

The initial assault began at 1000 hours and met heavy resistance from small arms and automatic weapons. One of the 35 lift aircraft had been shot down in the vicinity of the PZ and only the first eighteen remaining aircraft were able to get into the LZ before the AMC aborted the remaining aircraft. During the insertion of the first eighteen aircraft, four lift aircraft were shot down, twelve others hit, and three UH-1C gunships were damaged from enemy fire. Fire was received from the entire area around the LZ, with the heaviest fire coming from the southwest and southeast. The insertion was aborted at 1030 hours and the thirty remaining lift aircraft and their escort gunships returned to Khe Sanh, refueled and awaited further suppression of the enemy fire in the vicinity of the LZ.

After additional airstrikes had been placed in the LOLO area, the second attempt to insert troops was made at 1312 hours. This attempt was made at a touchdown point on the high ground approximately 75 meters north of the initial touchdown point. Only five aircraft were able to place troops on the ground as the second aircraft in the lift received a hit from a mortar round, crashing near the LZ. The second attempt was aborted at 1320 hours, with three lift aircraft damaged in addition to the one destroyed and one escort AH-1G damaged. The flight again returned to Khe Sanh while the thrid group of airstrikes was employed around the LZ.

During the first two attempts to get into LOLO, the lift package had been reduced from 35 to 19 flyable aircraft. Twenty-three additional lift aircraft were added to the flight for a total of 42 aircraft for the third attempt to complete the assault.

Prior to the third attempt, a decision was also made to alter the flight route, approach path and touchdown point. The new flight routewas from the PZ north to the river, then west along the river to the release point (RP), which was a bend in the river due north of the LZ. The approach path was flown directly south from the RP to the LZ with a right descending turn which terminated landing to the west. The touchdown point was moved to a lower slope of the high ground on the northern tip of the ridge. This gave the aircraft cover from artillery hitting on the hilltop.

The third attempt, commencing at 1545, completed the insertion of the 3d Bn, 1st Regt, 12 sorties for the regimental CP and 12 sorties of engineers. The final attempt met with much less resistance as only small arms fire was encountered. This accounted for 13 additional lift aircraft and two UH-1C gunships damaged but

none shot down. The 1st Bn, 1st Regt, was scheduled to be inserted after the 3d Bn on 3 March. But since the insertion took longer than expected, the 1st Bn, a reconnaissance company, artillerymen, and the remainder of the engineer company were inserted the following day.

The insertion of LOLO was completed on 4 March 1971. PZ's for the 1st Bn, 1st Regt, the reconnaissance company, artillerymen, and the remainder of the engineer company were on HOTEL and DELTA. The move was completed at 1512 hours on 4 March.

9. HEAVY LIFT

The mission in support of the insertion of LZ LOLO was assigned to the 159th Aslt Spt Hel Bn with the assistance of the 132d Aslt Spt Hel Co, OPCON to the 159th, and the III MAF Sqdn HMH 463. The support requirement included 70 sorties of 65 tons.

The AMC for the troop-lift was the S-3, 223d CAB and the heavy lift was under the control of the CO, 159th Aslt Hel Bn. The planned sequence of movement included completion of the troop lift prior to the first medium and heavy lift aircraft. This would avoid the mixing of UH-1H aircraft with the medium and heavy lift aircraft. The flight route was north of Route 9 and the Xe Pon River proceeding on a westerly heading until abreast of the LZ at which time a left modified high overhead approach would be initiated ending in an upwind landing.

Gunship cover in the vicinity of the LZ was under the control of the troop lift AMC, giving him as much flexibility as possible with his fire support. Three sets of guns were given the role of Direct Support to the 159th elements under mission control of the C&C for that element. The 159th mission commander planned on using the three sets of guns by maintaining two sets on station over the LZ throughout the heavy and medium lift portion of the insertion. The remaining set of guns would be used to relieve, alternately, the other sets of guns on station. The relief set of guns would be on call at the rearm pad at Khe Sanh, and directly responsible to the C&C.

It was decided that one flight would consist of ten aircraft for this operation. The flight of ten aircraft was further broken down into six CH-47's and four CH-53's. Placing the Marines under the control of the Army element facilitated both control and coordination between these units. The use of one flight combining both the heavy

and medium lift aircraft further allowed greater flexibility and mission responsiveness than had been experienced by the 159th in previous operations with the Marine aircraft.

Two minute separation between aircraft was considered to be the best separation time. This time was arrived at with due consideration for aircraft separation in the LZ and PZ while still permitting maximum flight control by the C&C. Heavy emphasis was placed on maintaining proper separation by observing the posted enroute flight airspeed of eighty knots and a return air speed of one hundred and ten knots. The formation most logically chosen for the flight was trail, again maximizing control and coordination while allowing maximum maneuverability and flexibility.

The aircraft were to remain overnight at their home stations and depart not later than 0700 hours on the morning of 4 March to proceed to an assembly area designated as PZ AIRBORNE (XD 8238). This assembly area was chosen for both its size and close proximity to the PZ's. A closing time of 0930 hours was established for the arrival of all the aircraft at assembly area. At the assembly area it was planned that the C&C would give the mission lead and aircraft crews any last minute mission changes and the latest enemy and friendly situation reports. A check of the aircraft would be made by the crews and the flight would be ready for the expected PZ time of 1100 hours, or could respond to an "on call" order to proceed with the insertion. The exact PZ time at this phase was only speculative, and depended on how well the troops insertion progressed. The remainder of the mission would be accomplished as rapidly as possible. With an estimated turn around time of 45 minutes, the mission would be completed in three lifts and a closing time of 1630 hours was estimated.

On the morning of 4 March 1971, all aircraft were enroute to the assembly area by 0700 hours. While enroute to the assembly area, four direct support missions were completed by aircraft assigned to the LOLO operation. All aircraft closed in the assembly area by 0930 hours and the crews received their up-dated mission briefing from the C&C. All aircraft were ready to launch by 1030 hours. The C&C then launched to make an aerial reconnaissance of LZ LOLO. While enroute he contacted the AMC and received an air briefing on the latest enemy situation, suggested flight route, approach direction into the LZ, flight altitudes, winds, an artillery advisory and the current mission status.

After the C&C received the air briefing by the AMC, it was evi
that the insertion was not progressing as rapidly as planned. The de
in getting the ground elements inserted made it necessary to begin th
heavy and medium lift portion of the insertion prior to the last groun
closing in the LZ. A warning order was passed to the C&C to prepar
the first lift for delivery by 1400 hours. This warning order was foll
up by an order to execute the heavy and medium lift phase at 1308 hou
The first flight was launched at 1311 hours and proceeded to the LZ.

The LZ was fairly small and had evidently been prepared by a
Daisy Cutter as there were many stumps and some rather large obsta
left within the perimeter of the LZ. The troop-lift aircraft were maki
their approach from the north to the south with a short left turn and
landing in the LZ from the west to the east. They were departing to th
east and breaking to the left as they were climbing out. It was evident
that there would be problems, first getting in and out of the LZ with all
the lift aircraft traffic, and once in the LZ, finding a suitable area to
release the loads. As for the first problem, the aircraft commanders h
to adjust their approaches to integrate them with the troop-lift traffic.
In addressing the second problem, the only solution was to try to keep
the loads out of the troop-lift landing area and to avoid blade strikes.
Once in the LZ, the CH-47 with its sixty-foot diameter rotor was greatly
restricted by obstacles while maneuvering to position its load. The
CH-53 was even more restricted.

The first aircraft arrived and began its descent into the LZ, which
was completed successfully with no major incident. The first loads to
arrive were the 105mm and 155mm howitzers. The last aircraft on the
first lift closed on the LZ at 1400 hours. This procedure was followed
until the last sortie was inserted and the PZ was clean at 1615 hours,
finishing the mission at 1645 hours.

Early in the assault phase while enroute on the first lift, a CH-47
tail # 820, took two hits at three thousand feet from a 12.7mm antiaircra
weapon. One round entered the cockpit area through the aircraft
commander's window, pierced the bulkhead just above and behind the
aircraft commander's head and continued to pierce the #2 upper dual
boost accuator and eventually lodged in the spar of the green rotor
blade. The second round lodged in the aft red rotor blade spar. The
aircraft lost its #2 hydraulics which forced the aircraft commander to
drop his load and make an emergency landing at ALUOI. The aircraft
commander received minor injuries to the left side of his face and left
shoulder caused by flying windshield glass. Later in the operation, the
aircraft and crew were evacuated to Khe Sanh.

C. (C) SUBSEQUENT ACTIONS

1. AIRCRAFT DAMAGE

The assault on LZ LOLO included 92 aircraft. Sixty-eight of these aircraft took part in the initial phase of the assault. The remaining 24 aircraft were replacements for aircraft damaged and lost to the operation. Of the 92 aircraft used, six were destroyed and 34 others received combat damage. All six of the aircraft destroyed were UH-1H's. Of these six aircraft, four were destroyed in the LZ during the initial attempt, one was destroyed before making pick-up in the PZ area, and one was destroyed while landing on the LZ during the second attempt. Twenty-eight lift aircraft received combat damage during the assault on LZ LOLO. All but one of the damaged lift aircraft received their hits while landing, on take-off, or actually in the LZ. The other lift aircraft received damage enroute to the LZ. One of the five damaged AH-1G gunships was hit while covering this damaged UH-1H. The other four were damaged while providing escort to lift aircraft in the LZ area. Twenty-six aircraft were hit by small arms fire, three by 12.7mm machineguns, four by mortar fire, one by antiaircraft fire, five by both 12.7mm and antiaircraft fire, and one by both small arms fire and 12.7mm fire. The 92 aircraft, 61 UH-1H, 17 AH-1G, and 14 UH-1C, flew a total of 342 hours and 844 sorties.

2. CASUALTIES

The forty aircraft which were hit included 16 personnel casualties. Of the 16 casualties two were KIA, two were WIA evacuated to CONUS, six were WIA hospitalized in RVN, and six were WIA treated and released for duty. The 16 casualties were made up of two aircraft commanders, four pilots, six crewchiefs, and four doorgunners.

3. DOWNED AIRCRAFT RECOVERY

Seven aircraft were shot down during the assault of LZ LOLO. On 4 March, one of these seven aircraft was recovered. One of the seven aircraft was shot down, inspected, and found to be flyable. The remaining five aircraft were destroyed and could not be recovered.

SECTION III
AIRMOBILE STUDY GROUP
COMBAT ASSAULT LZ LOLO
3 MARCH 1971

9 MARCH 1971

BG SIDNEY BERRY, ASSISTANT DIVISION COMMANDER (OPERATIC

Starting today, we are going to methodically review each one of ou combat assaults. The combat assault is the ultimate objective of all airmobile operations, and the most difficult phase to achieve successfully. Daily, starting at 1000 hrs and lasting until we are through, we will assemble the key personnel involved in each combat assault. We will start with the combat assault on LOLO. Tomorrow LIZ, the next day SOPHIA and the next day HOPE. We are beginning with these since they are the freshest in our collective memories. During the first discussion we will develop our methodology and our technique and hopefully gain in efficiency and effectiveness as we reconstruct what actuall happened. We will take these things from the planning phase, staging and the combat assault, focusing on the preparation of the LZ and then the continuation of the assault. Participants will be the senior adviso of the most interested Vietnamese unit and a representative of the Air Force, who we hope will be able to provide us with the airstrikes that went in and the ordnance they delivered. Of course all of the people involved here in the Army aviation aspect will participate. This being our first session, we are going to have to work our way through to find the most effective technique for doing this. Let me conclude. Our purp is to reconstruct and record what actually happened in a narrative fashi We want to get the facts on the table before us, from the planning stages through the execution, and then make the determinations. Then, having put our facts on the table, we can go back and develop the lessons learn We must know what it is that we did well, that we should do again in futu combat or airmobile operations. We must also know what it is that we did poorly, that we need to strengthen in our next combat assault.

COL EDWARD DAVIS, CO 101ST AVN GP

One general point I'd like to mention is that in an exercise of this typ there are going to be some things that appear critical of the things that were done. I think Gen Berry has well pointed out what the purpose is, so let's not take anything personal.

MAJ JOHN KLOSE, S-3, 223D CAB

The first 17 days set the scene for this one. There were circumstances that we ought to cover before we go into LOLO. Initially, we put the 3d Regiment into HOTEL and BLUE, the 1st Regiment into DELTA and DON, and two battalions down at DON. We were oriented south and west. In a subsequent operation we established Fire Base HOTEL 2 and later put three battalions in the field in the vicinity of LZ GRASS. They did not have too much success there and the division changed their order of combat. We had the responsibility of carrying out this change. In essence, we extracted, after a bitter fight, the two battalions that had been around the HOTEL area and took them to Fire Base DELTA 1, which became the CP of the 3d Regiment. In essence we moved the 3d Brigade to the area occupied by the 1st Brigade. We were going to take the 1st Brigade to LOLO and leapfrog them out. What we had done was move everybody in the division prior to LOLO. Once this was accomplished we had one meeting to cover LOLO, LIZ, SOPHIA, HOPE, and at that time VICTOR. The itinerary of events is almost the identical script we used coming out of HOTEL, DELTA 1 and the fire bases. To put in a fire base a whole sequence of events must happen. We must get the first battalion in on the ground; then the next order of priority is to get a bulldozer in there. To prepare the gunpits we must insert engineers and bulldozers. Once we bring the 155mm howitzers out they have to be put into prepared pits because ARVN cannot manhandle these guns. So, always on the day we established a fire base it was a very busy day. We had to start very early in the morning. LOLO is an example of the requirement. One hundred ninety-eight UH-1H sorties for personnel and 70 CH-53 sorties were scheduled. That was what was planned to be accomplished on LOLO. We had similar itineraries at HOTEL, HOTEL 2, DELTA, and DELTA 1. We had been successful at accomplishing the mission. The times were computed by me to accomplish the mission as assigned by the 1st ARVN Inf Div. I spent two days with it. Let's go back and pick up the mission. The mission was to move to LOLO in one day, the 3d Battalion, 1st Regiment, Hqs 1st Regt, a recon co, two bulldozers and an engineer company. Then there was going to be a two-hour lapse. In the two hours we were going to put in the 1st Battalion, 1st Regiment, a six-gun 105mm howitzer battery, a four-gun 155mm battery, and 66 sorties of ammunition, engineers, and engineer material. The LZ time was to be 1000 hours.

prior to the LZ time we were to start with airstrikes at 0715 to run to 0930. From 0930-0956 there was to be an artillery prep. From 0956 to 1000 we would have an ARA prep and the insertion of the first sortie. There were requests for Commando Vaults to prepare both the primary and the alternate LZ. From 0930-0956, an artillery prep was to be fired from DELTA 1. In addition, it was planned that the troops would all depart a PZ at DELTA, which is slightly different than what actually developed. Thirty minutes before PZ time we were told by the regimental commander that the PZ would be a field site. Instead of an insertion, we were running a simultaneous extraction and insertion.

CPT JOHN GOERTEMILLER, 1ST ARVN INF DIV LIAISON OFFICER

The 1st ARVN Infantry Division had been given the mission by I Corps to proceed west, south of the ridge line, eventually to the vicinity of Tchepone, destroying the enemy supplies in that area. The 1st Regt had the responsibility of securing an LZ designated LZ LOLO. This LZ was to support further operations to the west, and subsequent operations of the 1st Regt to the southwest into objective areas which have not been identified.

MAJ JACK CLARK, CO, A/2/17TH CAV

This particular reconnaissance was not done by my troop, it was done by B/7/1st. I did handle the three other LZ's we will talk about the following days. I'll try to give you basically what I remember from the briefings I had. B/7/1st worked the LZ the day prior to the insertion. They screened around it and took no fire. We sent them back out the following morning, to employ the airstrikes, verify the approach routes, and confirm the written brief given the night before to the 1st ARVN Inf Div as to the description of the LZ and the alternate LZ they had picked. They even went so far as to draw diagrams of the ground showing them what it looked like and what obstacles they had noted. As I recall they had not reported any enemy fire around LOLO. They had picked up fire farther to the south and farther to the west from 12.7mm weapons. The reconnaissance was accomplished in conjunction with the Air Force and artillery preparation.

MAJ KLOSE:

One thing on fire support. There were ARC LIGHTS scheduled on LOLO. I do not know the number but I believe it was two. Before the airstrikes went in at 0715 there would be two. There was one to the north, but the one on the LZ was not flown.

GEN BERRY:

I remember the morning of the landing on LOLO talking with Gen Phu about this. He had desired that the ARC LIGHT be placed on the LZ itself. I believe that on the evening prior to LOLO he had requested nine ARC LIGHTS. One of those nine had been diverted. It happened to be the most critical ARC LIGHT to the combat assault, that is, the ARC LIGHT scheduled to go right on the LZ. That is a critical point. Can you give us the number of airstrikes that went into that area?

MAJ EDWARD MAHONEY, USAF ALO:

No sir, I cannot. I only have the notes on LOLO itself.

COL DAVIS:

Were there any specific landing instructions issued by the 1st ARVN Inf Div?

CPT GOERTEMILLER:

No sir, not that I know of. Just that the 3d Bn would be assaulted and would secure the area before they put in the regimental CP and reconnaissance company. There was no alternative for LOLO. The LZ had to be secured to make the rest work. As for all other LZ's, the earlier LZ was the alternate. For example, if we could not get into LIZ we would put the troops into LOLO and walk to LIZ. If we could not get into SOPHIA we'd go into LIZ and they would walk. As far as an alternate it was within two hundred meters of the top of the hill. It was just another place to put one helicopter.

MAJ KLOSE:

I think there is another point here concerning all the LZ's we are going to discuss. We had been given the mission of picking an alternate

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LZ within a 200-meter radius of the primary. I don't think this is really acceptable, because if the primary is going to be hot, and you have got 12.7mm and 37mm, 200 meters or 300 meters is not going to be enough distance to pick an alternate LZ. As I recall the first one we tried after the initial assault was within about 75 meters of the first one. They were just extensions of the original LZ and not an alternate. The 200-meter radius was requested by ARVN. Every request we get is to pick an alternate within a given distance of the primary. Normally it's 200 to 300 meters which is just too close to accomplish the mission. The same weapons covered the second area where we landed. This has been true throughout.

GEN BERRY

At LOLO, by changing your touchdown point 200 meters you got ships in successfully indefilade from mortars and indirect fire hitting on top of the hill. One alternate LZ was on a steep slope, and to have planned that as a primary would not have been too prudent initially. Again we are distinguishing between, in the planning phase, a true alternate to the primary zone, which is certainly farther away than 200 meters, so you get away from the primary weapon's coverage. We are talking of the techniques once you have committed yourself to change the touchdown point to get out of the incoming fire. These are different subjects. Do you think our recon tipped off the enemy to our coming in on a landing there?

MAJ CLARK

No sir, I don't because we were working the whole ridge line from east-west, not concentrating on that particular point. In subsequent days I did the same thing on the next three LZ's.

MAJ SHEFFIELD, G-2

We've noted that one of the enemy tactics is to hold fire against ships that they know carry weapons, and wait for the ships coming in with personnel on them. They are directing their troops to wait until they recognize ships with troops in them. When these troops start to deploy on the LZ, the enemy engages them. This could explain some of this.

MAJ CLARK:

I disagree. I don't think that is true at all, because I'm taking hits in Cobras at 3000 feet. They are shooting more at my gunships and me in the C&C than they are at the slicks coming in.

COL DAVIS:

In this particular operation, of all the aircraft hit, only two were gunships.

MAJ KLOSE:

With the exception of HOTEL, HOPE and SOPHIA, Col Kirklighter (CO, 223d CAB) and I marked every LZ, and we have yet to draw fire. There wasn't a round fired at us at any time. They would almost have to know that we were on a marking run. It may well have looked like an auto-rotation. Of the places we have been, they're always on the high ground in the immediate area. The initial LZ selection is made at division headquarters by maps. Regimental commanders are then given this goose egg and this is their objective. They are the ones that actually determine where we are going to put the lead slick. This might be worthy of review. We always go for the high ground in a given area.

COL DAVIS:

The school statement is, "The AMC in conjunction with the Ground Commander (Air Mission Task Force Commander in U.S. unilateral operations) selects the LZ".

MAJ KLOSE:

They take the range of a 105mm howitzer and a 155mm howitzer, go to a map and inscribe an arc. It is within this arc that they will search for another fire base. Given the goose egg, it varies from regiment to regiment where the final touchdown point will be. With the 3rd Regt, the decision is always made by the AMC. With the 1st Regt it is the exact opposite. The final determination is always made by Col Diem.

There has been no room for compromise until LOLO, when it became essential to do something other than what we were doing. With the 2d Regt, on both occasion, the final touchdown point was a compromise between the Air Mission Commander and the Ground Commander. As an example, in SOPHIA and HOPE, we recommended the low ground and both times the regimental commander held out for the high ground. It was just fruitless to attempt the high ground in SOPHIA, and he bought the compromise which was the valley immediately to the north of the high ground.

COL DAVIS

Were there other LZ's available that would have been better, and still fulfilled the regimental commander's mission or objective?

MAJ KLOSE

At LOLO, the closest suitable alternative was the high ground to the southwest of the high ground to the east. Both would have caused the troops to fight through a depression of approximately one kilometer and attack uphill to seize the final objective. On the high ground there was no alternative; but to take the high ground you had only a limited number of places you could put one aircraft, since the Commando Vau were not put in. They were diverted and there were no ARC LIGHTS. Had the LZ been adequately prepped, and some of the trees knocked down, I think we would have more flexibility in determining where we were going to put the aircraft.

CPT GOERTEMILLER

Sir, if I may interject one thing, about the reference to the artille in support of the LZ. They wanted to make as large a leap as possib to the west on each LZ. However, the artillery was unable to suppor as far as they wanted to go. The artillery on DELTA 1 that was able to support the landing into LOLO was a 155 battery consisting of four guns. That leaves them a little less leeway as far as what LZ you to choose. They had a certain direction they had to move in, and the had to move as far as possible to the west. LOLO was in 155 range but not in 105 range.

COL DAVIS

Let's look at selection of flight routes and altitude.

MAJ KLOSE

LTC Phillips (S-3, 101st Avn Gp) and I talked about routes expecting to use DELTA as the PZ and go right over DELTA 1, BROWN and LOLO on the escarpment. Because of the visibility restrictions after the battle began, it became essential to move into the valley because that's the only way we could navigate. We used bends in the river as release points. Normal enroute altitude had been 5500 feet. I remember that day we were up to 7000 or 8000 feet coming down into LOLO because of the visibility problem.

COL DAVIS

I think it might be a good point to digress here for a moment on flight routes, specifically altitudes.

MAJ KLOSE

I would say 5500-7000. I cannot recall losing an aircraft enroute except a chase aircraft that was in the valley going into SOPHIA. We did not have any slicks hit enroute.

MAJ CLARK

I concur. I think 5500 in this mid-intensity environment. Facing the weapons we are, 5500 is a compromise. If you get above 5500 you are going to take air bursts from 37mm's. If you go below 5500 your chances of taking .51 caliber hits are increased. There is one other consideration. After friendlies have been on the ground more than two days out there on an LZ or a fire base, if you plan flight routes within one kilometer or two from that fire base, you are going to take ground fire because the NVA have moved to within 1500-2000 meters of that base. You are going to take hits if you plan the flight routes over the friendlies. We succeeded in LIZ, SOPHIA, and HOPE in flying over friendlies because the NVA did not have time to react. They did not have time to set up around those positions. The flight routes over the worked beautifully.

MAJ KLOSE

There is one other consideration, and that's the terrain you're going into. The LZ's that we were going into here were all on the high ground or the escarpment. When we went in to get the seven survivor the other day, we did go in at low level. We came by the escarpment and dropped down on the trees right on the deck. We had ARA and gunships flying on both sides and fire on both sides of us, and we took four hits on the insertion and zero hits on the extraction. Both of ther were conducted in the valley and it was flat. If we would have gone in high at 5500 we would never have made it. We would have been shot down by 12.7's. I think that you have got to evaluate the terrain at the time. On the high ground you can go in high. On the low, flat ground I don't think you can do it high.

GEN BERRY

In our preparation of the high ground, how do we deal with those weapons in the low ground surrounding the high ground?

MAJ KLOSE

We not only prepare the LZ, we prepare the approaches to and departures from it. We found, as an economy measure, an empty slick is a versatile thing. You bring them out the same way you bring them because you cut down your exposure area by 50 per cent. That way you can concentrate the available firepower on one alley to get in and We've found that long final approaches are suicide. All of our approa are buttonhooked. Minimum downwind, minimum base leg, minimum final approach, and out the same way. After we've looked at their 12. machine guns they have to lead you to hit you. If you give him three different velocities, he's less likely to hit you. So that's why we ha used the rapid descent and the turn-descent. Get as many direction velocities working for you as possible. I think given the proper fire power and the proper time we can sanitize that area and operate effe

MAJ CLARK

You have got to prep the approach and departure routes just as

[redacted]

as you do the LZ itself. Otherwise you have got to lose aircraft on short final or departing the LZ.

MAJ KLOSE

Every simultaneous insertion/extraction that we've run, the PZ's have been carved out where the troops were. They are all less than satisifactory, but we press on with it.

COL DAVIS

How about communication, command and control?

MAJ KLOSE

I'd like to address first the control around the LZ. We use VHF control of all aviation fire support. The AMC controls the lift aircra on UHF. All aircraft monitor the UHF for last minute instructions or changes in instructions. The only people who talk on UHF are the AMC and the flight leads. On FM we put other back channel traffic wouldn't fit on the other two nets. Unfortunately, during all these l all the radios are going all the time. On the VHF we use the Cav T VHF. The FAC, because he cannot monitor the VHF all the time, stay on the FM. It would be ideal to have the FAC, the Cav, and the guns all on a common VHF, under one common control. In the assau company all ships are on UHF. Some control VHF, some on FM. committed set is a UHF that is committed on air lift UHF. To contr the radios on the console in the back of a C&C aircraft we have a UH and two FM's. In ours those FM's belong to the Ground Command e One is for his artilleryman and the other is for his use.

COL DAVIS

Should the ALO be in the C&C aircraft?

MAJ KLOSE

If he was there he might cloud the air. There is very little he do since the FAC puts the smoke on the ground and communicates

the fighters. The ALO in the C&C ship is not a wise idea.

GEN BERRY:

Let me state an opposition view here from the standpoint of cont circumstances. The brigade CO riding in the back of the C&C ship i with me and the air liaison officer. With the Air Mission Commande sitting in the front seat I, as the Ground Commander, had everybody I wanted to communicate with. I could work out the same path as the FAC, and I could say to the FAC or to the ALO, "There is where I want the airstrikes or here is where we want the artillery" and then I was free after that. I realized that this is a control situation, that it's unilateral, and I as the Ground Commander was running it, to a greater unilateral degree than is the case where you have one natio ity as Ground Commander and another as the Air Mission Commande

MAJ KLOSE:

I think he would be ineffective because he wouldn't be communica too well with the regimental CO and his staff. He would be communic with us, but then all he would have is UHF to communicate with. Whe he is now, at DTOC, he has UHF, VHF, and FM plus Americans to get the ever changing situation. He has people he can deal with to get something for us and they have been very responsive throughout.

COL DAVIS:

The airstrikes which were going in around the LZ's in support of the assault, are they not unilateral from your standpoint?

MAJ KLOSE:

The Cav put them in.

COL DAVIS:

You are selecting the target areas?

MAJ KLOSE:

Yes sir.

COL DAVIS:

Whether or not an ALO, and I'm not saying in lieu of the one at division, whether there should be an ALO on board the C&C?

MAJ KLOSE:

I would like to try one. He could contribute if he could talk to the fighter elements in their language and explain the situation to the fighters. This is the reason in point. Because of the amount of traffi that is on that FM, you are saying "OK, it's a ridge line to the south of the swamp", and this and that. With an ALO inside of the aircraft he could pick it up and put the strike in. We still have to go through the FAC, another communications gatekeeper. He could increase the confusion factor inside the aircraft if he gets in the communications link.

GEN BERRY:

The VHF is what you use to run the guns and talk with the FAC whenever you can?

MAJ CLARK:

If I can't get him on VHF, then I get him on FM. He is on one of those two nets normally. He is talking to the fighters and then we have a little problem getting back to him.

MAJ KLOSE:

The absolutely critical time is right at the LZ time. Now this w well once we have six or eight loads on the ground and have a man on ground. Once they say, "Receiving fire from the east!", the minute hear that I tell the Cav the threat is from the east and the response good. I believe we could handle up to three different directional thr at the same time.

COL DAVIS:

Please continue on the use and control of fire support.

CPT JOE ALTMAN, 4/77 ARA

I feel they (ARA) are not being used effectively because of com

tions breakdowns, particularly when aircraft start taking hits near the LZ. The Air Mission Commander goes through his UHF to his individual lead and back through the Cav and then there is no one to adjust ARA.

MAJ KLOSE

The Daisy Chain was not an escort. It is a 360 degree security, greater reaction force that can give us immediate fire power in the vicinity of the threat. We don't have time to adjust. If we know the threat is in the east, we can keep them honest in the east. In Daisy Chain control everybody listens to Cav commanders. If a threat develops we can hit them. You have your Daisy Chain for immediate reaction and suppression of the threat wherever it may be.

MAJ RICHARD MILLS, CO Btry A, 4/77 ARA

The Daisy Chain, due to its construction, has to keep moving. Once you have suppressed that fire we pick it up immediately and we kill it. So in essence, when we are in that Daisy Chain we move on with it and we don't stay there and kill him. Once you suppress and mark it for us we can go in and kill it.

COL DAVIS

We have used the quadrant system wherein the artillery continues to fire in one, airstrikes in another quadrant, escort guns in another segment, Cav, etc. You retain the ability to strike the targets you identify or are identified for you. We used this on RANGER PZ.

GEN BERRY

It was used by us in the 1st Division. Were you at RANGER?

COL DAVIS

I was. It worked fine. There was no control problem at all. Was it a circle or area suppression at LOLO? What was planned for fire support?

MAJ KLOSE

A few ARC LIGHTS. Air prep started at 0715. There were Commando Vaults before the LZ and alternate LZ, two to four minutes of artillery and four minutes of ARA were planned. Artillery came from DELTA 1. That caused us to go off the escarpment to the north on the initial flight run because we would not be directly on gun target lines if we tried to use safe haven routes. Because we were exposed to the face of the escarpment, we had to shift even further north. We didn't want to expose slicks for the length of time so close to the face of the escarpment.

MAJ MAHONEY

Most of the time we had two FAC's in the air. We only have one UHF and can listen to only one FAC giving his reports. If there are any gaps in the timing sequence there is a very good chance of getting it back from DASC VICTOR back at Quang Tri.

MAJ KLOSE

The Cav was to be on station at first light and to observe the airstrike going in. We picked up Col Diem at DELTA 1 at 0800. We got on the scene and determined that no airstrikes had been delivered yet. In the meantime, we were told that we did not get the ARC LIGHTS because the air had been diverted. Immediately thereafter we started to get the FAC, and the first bombs fell at 0840. However, from 0715, the time scheduled for the air prep to start, to 0840, no airstrikes had been delivered.

MAJ MAHONEY

The best bomb load after a Commando Vault is a Daisy Cutter, which is a fuse extender on a 1000 pound bomb. Daisy Cutters went in. They asked for four sets of air, Daisy Cutters and hard bombs. They got it. The first air that went in was the Daisy Cutter - hard bombs, which went in at 0840-46. At 0855 another LZ construction went in until 090[illegible] and another from 0910-0923. The fourth planned LZ construction went in from 0930-0944. Again, I want to give LOLO first, then other str[illegible] went into the area. Next was troops in contact (TIC) from 1020-1030 on XD435475, which was LOLO. Next, 1020-1030, 1115-1130.

Again troops in contact; 1130-1140 troops, 1140-1150 same. Then 1200-1210 same, 1217-1225 TIC, 1244-47 TIC, 1347-1350 TIC, 1350-1400 TIC, 1402-1405 TIC. This was on the LO LO area. There were 5-9 additional sets of air.

MAJ KLOSE:

Later in the day we had HAMMER 48 up who has become an outstanding FAC.

MAJ MAHONEY:

One thing I was going to bring up, there was a very good possibility, at the time, of a search and rescue mission (SAR). Now the FAC's were briefed that TIC for the first time in this war had priority over SAR.

GEN BERRY:

About 2200 hours 3 March at XXIV Corps HQ at Quang Tri, in conversation with XXIV Corps G-3 and XXIV Corps Air Liaison Officers, I requested that henceforth for the duration of this operation first priority air go to combat assaults and LZ prepping and the continuation of insertions. Second, I requested that no air be diverted from combat assaults without the permission of Air Mission Commanders.

COL DAVIS:

Let's discuss fire delivered in close proximity to friendly troops.

MAJ CLARK:

In the Cav, we don't fire anywhere close to friendlies unless we know for certain where that friendly element is or have contact with the ground. Unless you can positively identify weapons you cannot return fire when close to friendlies.

MAJ KLOSE:

We did use people who talked to ground commanders and then told the FAC's where the friendlies were. This works ideally on small operations like SAR. On at least two occasions airstrikes were not put in.

GEN BERRY:

Another point is the number of guns available. It was a limiting factor that day and some of the other days in our combat assaults. Th number of guns limits the number of resources available to us.

MAJ KLOSE:

About 12 February, the fourth day of the operation, we committed our reserves. This leaves us no surge capability. I believe that we might have to look at what resources we have and determine our optim commitment level, and still have some guns. We haven't said no to a lift, to my knowledge.

SECTION IV
COMBAT ASSAULT
LZ LIZ
4 MARCH 1971

A. (C) GENERAL

1. CONCEPT

LIZ (XD 3739) was the second of three fire bases that were established along the escarpment leading to Tchepone. LIZ would provide a link between Fire Base LOLO and SOPHIA 2 which would be established on 5 March.

2. MISSION

On 4 March 1971, the 1st ARVN Infantry Regiment had two priorities. It was decided that the first priority would be to complete the artillery lift and troop insertion to LOLO which was not completed on 3 March. As soon as the lifts were complete and the 105mm howitzers were registered, the 1st Regiment would initiate the assault to LZ LIZ. The regimental plan called for the 4th Battalion to combat assault from DELTA 1 to LZ LIZ. The purpose of LIZ was to secure a link between Forward Operational Base LOLO and FOB SOPHIA 2 which was scheduled for 5 March. LIZ was also to provide a staging area for movement to the south once the Tchepone objective was achieved. The Corps plan gave priority of the air cavalry, ARA, airstrike assets, and ARC LIGHTS to the 1st ARVN Inf Div for the move to LIZ. It was planned to use 105mm artillery from LOLO and 155mm artillery from ALUOI to prepare the LZ prior to troop insertion. Because the heavy lift to LOLO of artillery was not completed on 3 March, there was some question as to whether the 105mm howitzers would be laid and ready to fire for support of the assault. It was decided that should the 105mm howitzers not be ready, the insertion would go without the 105mm artillery support.

In other air activity in the LAMSON 719 area of operation on 4 March, the VNMC conducted air moves to the FB DELTA area. The 1st Battalion, 1st Regiment, 1st ARVN Inf Div remained north of FB DELTA

to screen for the VNMC. The VNMC moved the CP of the 147th VNMC Bde; the 4th Bn, 147th VNMC Bde; three infantry battalions; and personnel from the 4th Artillery Battalion from PZ KILO to FB DELTA closing at 1830 hours. The move involved a total of 2785 personnel.

3. WEATHER

Weather contributed to the difficulty of the operation. The cloud cover continued to be scattered and broken during the day with heavy fog in the morning hours. In the area there was a continuous haze that grew more dense as the afternoon progressed. Visibility was extremely limited to the front but visual contact with the ground for navigational purposes was reasonable. As the sorties flew to the west the sun combined with the haze to limit the visibility. Pilots reported that returning to the east they could see with the sun at their back. The environment was such that the antiaircraft positions could see aircraft coming into the area. The same condition coupled with smoke created during the LZ preparation resulted in the diversion of planned smoke missions by the Air Force.

B. (C) EXECUTION

1. ENEMY SITUATION

On 3 March a combat assault was conducted on LZ LOLO (XD 431 373), which was interrupted after 18 sorties because of intense enemy fire. The assault was completed later in the day but with a total of 35 helicopters damaged and five destroyed. Approximately four kilometers to the southwest of LZ LIZ was the center of the suspected 33rd Binh Tram, identified by XXIV Corps prior to the beginning of LAMSON 719. Elements of the 2nd NVA Division containing the 1st VC Regiment and the 141st NVA Regiment were believed to be in the general area as well as elements of the 591st Antiaircraft Regiment. On 3 March one gunship was hit by 37mm antiaircraft fire to the southwest of LZ LIZ. This was the only indication that weapons larger than 12.7mm and small arms could be expected on LIZ.

2. COMMAND AND CONTROL

The chain of command for the ARVN troop units was from I Corps and 1st ARVN Inf Div located at Military Post in the vicinity of Khe Sanh

to the 1st Regiment located at FB LOLO (XD 431373) to the 4th Battalion which was in a field location (XD 625309) just north of FB DELTA (XD 648300). The 223rd CAB, OPCON to the 101st Aviation Group had habitually been working with the 1st ARVN Inf Div and was assigned the mission to combat assault the 4th Battalion into LZ LIZ. During the early part of the day, the AMC was preparing the LZ with B Troop, 7th Sqdn, 1st Cav, and an Air Force FAC. The S-3, 223rd CAB, picked up the 1st Regt Commander at FB DELTA 1 (XD 552345) at 0800. The 1st Regt commander was the Ground Commander for all moves of the day. In the 1st ARVN Inf Div, if there is a battalion move, the regimental commander controls the move.

The 223rd CAB used its UHF radio to control the air move. VHF radio was used for control of the gunships and the Cav, and the FM radio was used for AMC routine traffic and the Air Force FAC. The 223rd CAB used three C&C ships, one for the AMC preparing the LZ, one for the S-3 conducting the earlier moves of the day, and the third controlling the PZ. The 101st Avn Gp Co and the ADC (O) of the 101st Abn Div (Ambl) were above the operation and provided a means to the AMC for additional support when and if needed and a communications link between the 1st ARVN Inf Div, through the advisors, and the US XXIV Corps G-3.

3. ECONNAISSANCE

The 2nd Squadron, 17th Cavalry placed three air cavalry troops in direct support of the 1st ARVN Inf Div on 4 March 1971. C Troop, 7/17 Cavalry, OPCON to the 2/17 Cav, received the mission of screening to the north and west along Route 9. B Troop 7/1 Cav received the mission of providing security to the south and west of LZ LIZ during the insertion. A Troop, 2/17 Cav had the mission of conducting reconnaissance of the LZ, and preparing LZ LIZ for the insertion. Each of the Cav troops used teams of two AH-1G Cobras for reconnaissance and one UH-1H, command and control, for coordinating the reconnaissance effort and the LZ preparation. The Cav troop commanders elected not to use the LOH's because of known high density of antiaircraft fire in the area. The Cav troops, to insure continuous coverage during the operation, relieved their reconnaissance teams on station throughout the day.

B Troop, 7/1 Cav was briefed on the morning of 4 March by the AMC and diverted to LZ LIZ with control of TAC air to prepare the LZ.

A Troop, 2/17 Cav was diverted to LZ LOLO during the morning by the AMC to provide security for the continuation of that move. A Troop provided security to the south of LZ LOLO and was prepared to direct suppressive fire against any mortars or small arms fire that the troop-lift or heavy-lift might receive during the move.

At 1345 hours A Troop moved to the vicinity of LIZ for visual reconnaissance of the LZ and to prepare the LZ for the insertion. B Troop, 7/1 Cav reverted to a screening mission to the south and west of LIZ. A Troop received fire in the vicinity of the intended LZ (XD 374395). The troop's organic gunships were employed in destroying the weapon. A Troop received control of TAC air and employed them on selected targets: heavy vegetation in and around the intended LZ, high ground on the flanks, and the approach and departure routes. While airstrikes were being employed in and around the intended LZ, A Troop made a visual reconnaissance of the high ground to the west in the vicinity of the intended LZ for 5 March. This reconnaissance revealed trenches with bunkers and antiaircraft weapons. The AMC directed the Cav to work with the FAC and employ the close air support on that area during the insertion on LZ LIZ.

A Troop's visual reconnaissance following the airstrikes on LZ LIZ revealed a 300-meter trench line, L-shaped, near the intended LZ. There were fifteen 12.7mm positions located throughout the trench line and in the surrounding tree line. A Troop marked and directed airstrikes on these locations destroying seven 12.7mm positions and 200 meters of the trench line. A Troop continued reconnaissance of the intended LZ area but could find no acceptable touchdown point. A Troop began reconnaissance of the intermediate ground to the north, between the escarpment and the intended LZ, searching for an acceptable touchdown point. A Troop received 12.7mm fire from the vicinity of XD 367396, and engaged these targets with organic gunships, destroying one 12.7mm. A Troop located three additional 12.7mm weapons active in the vicinity of XD 366396. These were engaged with organic gunships and airstrikes and were subsequently destroyed. During this period A Troop, though receiving 12.7mm fire, had not received any small arms fire. The intermediate ground was recommended for the touchdown point because of the heavy vegetation and enemy positions on the intended LZ. Even though twelve to fifteen 12.7mm's had been destroyed, the possibility existed that additional 12.7mm's could be positioned in the heavy vegetation. The recommended touchdown point was in an open area that had been cleared by an Air Force Daisy Cutter bomb. It was a large,

dark-brown area, surrounded by a burned-out area, which could be easily identified by the pilots approaching the LZ. This touchdown point departed from the high ground concept in that it was in a shallow draw with high ground on both sides. The only dangers seen were huts and buildings to the west of the LZ and north of the escarpment, vicinity XD 366403. This information was passed to the AMC along with the recommended approach and departure routes. The recommended approach route was from north to south, slightly west of the LZ, with a short descending left turn to the east into the LZ. The recommended departure route was straight out of the LZ to the east along the escarpment. A Troop had been flying over the area for three hours and had not received any fire. The approach and departure routes had been prepared by airstrikes.

The recommended LZ was passed to the AMC and ultimately approved. A Troop was given control of TAC air and two sections of ARA to provide adequate security around the LZ. TAC air was shifted to targets on the planned LZ for 5 March. The two sections of ARA were assigned to make runs on the west side of the LZ from north to south in a high CAP. A Troop covered the east side in a low CAP, making runs from the north to the south. After this coordination was made A Troop made one final reconnaissance of the LZ, and did not receive any fire. By now the first flight of aircraft was on final approach. A Troop remained in a low CAP to the east. Early in the second flight small arms fire was received from the huts in the vicinity of XD 366403, resulting in two aircraft receiving hits, forcing them to land in the vicinity of the LZ. A Troop shifted to the west in a low CAP to locate the targets. The Cav and ARA worked together as a team in suppressing the enemy fire.

4. STAGING

The aircraft which conducted the combat assault on LZ LIZ also took part in the completion of the move into LOLO on the morning of 4 March. The AMC for the insertion of LZ LIZ controlled airstrikes around LIZ while the completion of LOLO took place, under the control of the S-3, 223rd CAB. The final briefing for LZ LIZ was given to the flight leaders by the S-3, 101st Avn Gp and the S-3, 223rd CAB. This briefing was conducted at Khe Sanh combat base with the aircraft staged on the Lagger Pad. The flight was formed and arrived at the PZ under the control of the S-3, 223rd CAB.

5. PICKUP ZONE

The aircraft for the combat assault on LZ LIZ arrived at the PZ, a field location (XD 641321) north of LZ DELTA, at approximately 1655 hours. The PZ was under the control of an additional C&C aircraft with two sets of UH-1C gunships for fire support if needed. However, no enemy fire was encountered at the PZ.

The planned ACL for the first flight was six. Since nine aircraft had been lost earlier in the day because of maintenance difficulties and combat damage, a request to increase the ACL was submitted and approved. An ACL of seven was employed which reduced the number of aircraft required. This meant the entire mission could be accomplished with two flights of 31 UH-1H aircraft.

6. FIRE SUPPORT

Planned preparatory fires on LZ LIZ were announced by the I Corps Commander during the 1730 briefing on 3 March. These fires consisted of five ARC LIGHTS from 040001 to 040635, 105mm howitzers firing from LOLO, 155mm howitzers firing from ALUOI, airstrikes from 040710 to 040935, two Air Force smoke sorties, and continuous air cover to include ARA on station. Priority of fires and airstrikes would be for the combat assaults.

At 2300 hours on 3 March one ARC LIGHT was employed approximately three kilometers southwest of the LZ with the center of mass at grid XD 355365. A total of seven ARC LIGHTS were employed prior to the assault. One of the ARC LIGHTS was dropped at 0140 hours approximately two kilometers south of the LZ on a suspected enemy strongpoint. Two were overlapping on the LZ at 0313 hours and 0635 with centers of mass at XD 365395 and XD 365385 respectively. The remaining ARC LIGHTS were employed north of the flight route into LZ LIZ with centers of mass located at grids XD 475430, XD 485435, XD 520445, and XD 537455.

At 0635 hours the FAC on station began coordinating airstrikes with the AMC. The FAC coordinated with B Troop 7/1 Cav at 0710 hours. Between 0710 and 1040 hours, 13 close air support LZ construction missions were employed, four of the first six being Daisy Cutters. From 1040-1115 hours there existed an unplanned gap in the TAC air. The ADC (O) of the 101st Abn Div (Ambl) called the XXIV Corps G-3 and requested that TAC air be on station every 15 minutes. Between 1115 and 1700 hours 18 sets of TAC air were employed in the vicinity of LZ LIZ. From 1620-1650 hours no TAC air was employed because the FAC

was not on station. The 155mm artillery from ALUOI fired 390 rounds on the LZ; however, the time is uncertain. The 105mm artillery from LOLO was not employed because it was not laid and ready to fire in time for the assault. Between 1700 and 1843 hours three sets of TAC air were diverted to the west in the vicinity of the planned LZ on 5 March. The two planned smoke sorties were not used because of poor weather and visibility. The final phase of fire support for the combat assault was conducted by the ARA working in conjunction with the Cav teams on station.

To support the combat assault into LZ LIZ the 4/77th ARA used two sections (4 aircraft) to sustain a continuous ARA CAP of the area. One section was used to provide relief on station for the other section when it became low on fuel and ordnance.

The ARA sections working in the LIZ area were controlled by the Cav troop commander. Consequently the Cav directed that the ARA prep the LZ and approach axis for the LZ in conjunction with a Cav gun team. This was to be accomplished just as the flight of aircraft were making their approach into the LZ. Subsequently the ARA was directed to provide a high CAP to the west of the LZ.

The first flight went in without incident. However, the second flight was taken under fire by enemy antiaircraft weapons to the west of LIZ. Thereupon the ARA came out of the CAP and engaged the anti-aircraft positions. The Cav fire teams moved from their orbit east of LIZ to develop the situation on the western side of the LZ. By working together the Cav fire teams were able to mark the enemy positions and then have the ARA attack the enemy weapons from a higher altitude.

7. PICKUP ZONE TO LANDING ZONE

As the flight was departing the PZ, the AMC was enroute to Khe Sanh to refuel after having completed the airstrikes on the LZ. Thus the first flight of 31 sorties was moved to the LZ and inserted without incident under the control of the S-3, 223rd CAB. After refueling, the AMC picked up the second flight as it was leaving the PZ and supervised the assault until its completion.

The first aircraft departed the PZ at 1700 hours. The flight route to the LZ was from the PZ north to the river and west to the release point, along the river. The RP was a bend in the river, north of the LZ. From the RP a heading of 190 degrees was flown to the LZ. The approach into the LZ was a descending left turn which was terminated into the wind on an easterly heading.

The departure was a climbing turn to an approximate heading of 020 degrees, until abreast of the RP. A flight route slightly to the south of the approach route was then flown back to the PZ.

The recommended enroute altitude was 5500 feet indicated. All aircraft were reported to have flown at least that high, some higher. The point at which to begin the descent into the LZ was left to the discretion of the flight leader.

Enroute gun coverage of the lift aircraft was provided by the gunships, ARA and Cav that were flying the flight route back and forth to rearm/refuel. There was no enroute enemy fire experienced during conduct of the combat assault on LZ LIZ.

8. ASSAULT

The Cav recommendation to shift the touchdown point was received by the S-3, 223rd CAB, who discussed the actual location with the 1st Regimental Commander. The regimental commander did not like the recommended touchdown point but wanted an alternative between LIZ and LOLO. The AMC informed the regimental commander that if the Cav recommended touchdown point was not used, the troops would have to be inserted at LOLO and move overland to the LIZ area.

In view of the decreasing visibility resulting from haze, heavy 12.7mm fire, and the lateness of the afternoon, the ADC(O) of the 101st Abn Div (Ambl) suggested to the 1st ARVN Inf Div Commander, through the XXIV Corps representative, that the troops be inserted at LOLO and move to the LIZ area on foot. The 1st ARVN Inf Div Commander did not agree and stated the assault must go into the LIZ area since it was essential to operations which would follow to the west. The regimental commander gave his approval to the touchdown point recommended by the Cav in the lower portion of the high ground between the

escarpment and the original intended touchdown point.

The combat assault on LZ LIZ began with the first aircraft touching down at 1715 hours. The first flight of 31 sorties inserted elements of the 4th Bn, 1st Regiment, 1st ARVN Inf Div. The first flight was completed at 1731 hours without incident.

The first aircraft that went into the LZ was escorted by ARA and Cav Cobras firing a prep of the LZ and approach path. ARA under the control of the Cav then went into a CAP and the Cav team remained in a low CAP to the east. During the first flight both ARA and the Cav provided 360 degree security. The UH-1C's were given the mission to cover the valley floor north of the escarpment.

Approximately 15 minutes elapsed between the flights, with the first aircraft in the second lift touching down in the LZ at 1745 hours. The decreasing visibility encountered during the second lift caused the aircraft to close on each other to maintain visual contact. This tightening of the formation caused a slower approach into the LZ and the aircraft had a tendency to shift to the west after leaving the RP. As the aircraft shifted to the west they began to receive fire from the area containing the huts identified earlier by the Cav.

When the second flight started receiving fire from the west of LIZ, ARA and the Cav shifted into assigned sectors of fire. The Cav shifted to the west in a low CAP to locate targets. ARA began engaging targets and worked with the Cav as a team. Two UH-1H aircraft in the second flight were hit by enemy fire and forced to land in the LZ. Both of these aircraft were reported down in the LZ at 1758 hours. By 1801 hours all crewmen from both aircraft had been extracted.

The last sortie of the second lift and the insertion touched down in the LZ at 1805 hours. The entire insertion of 62 sorties (over 400 troops) was completed in 70 minutes.

C. (C) SUBSEQUENT ACTIONS

1. AIRCRAFT DAMAGE

The assault on LZ LIZ included 72 aircraft with only 12 aircraft hit, two of which were shot down, and one forced to land from an unknown hit on the return flight. The aircraft were hit between 250 feet and 80 knots leading into the LZ, and 200 feet and 60 knots leaving the LZ. Seven of the aircraft hits were from small arms fire, three from 12.7mm machine gun fire, and one from both small arms and 12.7mm machine gun fire. The eleven aircraft hit in the vicinity of the LZ were UH-1H lift ships, the unknown hit causing the precautionary landing was on an ARA AH-1G. The 72 aircraft (40 UH-1H, 18 AH-1G, 10 UH-1C, and four ARA AH-1G) flew a total of 338 hours, and a total of 627 sorties.

2. CASUALTIES

The twelve aircraft which were hit included only three personnel casualties. One was an aircraft commander hit in the leg by small arms fire on his approach into the LZ at an altitude of 100 feet. The aircraft commander remained in Vietnam. The crew chief and door gunner of one of the aircraft shot down at an altitude of 20 feet on take-off from the LZ were hit by small arms fire and mortar fragments in the arms and chest after they were on the ground. The crew chief was evacuated to CONUS but the door gunner remained in Vietnam.

3. DOWNED AIRCRAFT RECOVERY

The two UH-1H's shot down in the LZ were destroyed. The ARA AH-1G which made a forced landing on ALUOI was later extracted on 7 March. The aircraft was damaged by mortar fire while on ALUOI and had to be evacuated to CONUS.

SECTION V
AIRMOBILE STUDY GROUP
COMBAT ASSAULT LZ LIZ
4 MARCH 1971

10 MARCH 1971

COL DAVIS:

We will discuss the combat assault made on the 4th of March at LZ LIZ. Concurrent with this was the completion of the insertion into LZ LOLO of both troops and heavy lift. The Air Mission Commander for LIZ was also involved with the continuing requirement to LOLO. These two operations are necessarily going to overlap. The same aircraft that were used on LOLO were also used for the LIZ insertion.

BG BERRY:

At the 1730 briefing on 3 March at I Corps Headquarters, the ARVN I Corps Commander, Lt Gen Lam set the following priorities:

1. Complete the move to LZ LOLO.

2. Combat assault the 2d Bn, 1st ARVN Inf Div from DELTA 1 to LZ LIZ.

3. Combat assault two Vietnamese Marine battalions from the Khe Sanh area to an LZ in the vicinity of XD 5929.

4. As a matter of urgency, arrive at objective HOPE in the Tchepone area on 6 March. Gen Lam stated that we should try to assault four combat battalions into the Tchepone area, but even if we got one rifle company or one rifle platoon into Tchepone on 6 March it was absolutely necessary that we make it with that size force.

5. Accord the 1st ARVN Inf Div priority of the air cav assets and ARC LIGHTS.

6. Before the combat assault on LIZ, position 105mm howitzers on LOLO, sufficiently in advance to have them registered on LIZ to fire an artillery preparation. If the sequence of events was such that the artillery did not get on LOLO, we should go to LIZ without the artillery preparation.

7. The following preparatory fires would be employed on the combat assault on 4 March: five ARC LIGHTS from 0001-0635 hours; preparatory fire by 155's from ALUOI; airstrikes from 0710-0935 hours; two smoke sorties; and continuous air cover and priority of fires and airstrikes to troop insertions over troops in contact, tanks, etc.

On the morning of 4 March at his 0815 briefing, Gen Lam stated emphatically that by the 6th of March his forces must combat assault into the Tchepone area. (Referring this time to objective HAIPHONG, he cited Gen Abrams and Gen Vien as having given to Gen Lam the directive to take Tchepone not later than 6 March). At this time he stated we should plan for three infantry battalions into objective HAIDONG and one infantry battalion into objective HAIPHONG. At the same briefing Gen Phu requested medical evacuation of 87 seriously wounded ARVN soldiers from LZ LOLO.

MAJ KLOSE:

We returned to the 1st ARVN Inf Div TOC after dark and determined that there were 101 slick sorties that had to go into LOLO before we could go into LIZ. In addition, there were 64 heavy-lift sorties. We decided, at that time, to split our forces. Col Kirklighter would brief the flight crews and borrow a C&C from one of the reinforcing elements, which he did. He departed at first light to go to LIZ and start the artillery and air preparation. To the best of my knowledge, 33 sets (66 sorties) of air were to be available. He started using these around 0815 in the morning and continued until LZ time. Maj Lloyd and I C&C'd 101 sorties into LOLO. However, the ARVN changed the battalions. We did it in this order: The 2d of the 1st was located in two positions. They had 34 sorties at DELTA 1, 34 sorties at HOTEL, and then 33 sorties of engineers and artillery at a PZ north of DELTA. Because there were 80 wounded that had to be extracted I recommended, and the recommendation was accepted, that we take the first 34 sorties from DELTA 1, which was the shortest leg into LOLO. We would then backhaul the wounded to KILO, and immediate start the second leg from HOTEL. We got in the 68 sorties from DELTA 1, HOTEL, and backhauled the wounded in one refueling. Then we refueled and started from DELTA with 33 sorties. I don't know how many it developed into because as the pressure to insert the heavy

lift increased, we kept asking, "How many were left?" It was still seven. At this time I determined that we could no longer follow this course of action. We would go ahead with LIZ, and I would police up those last seven lifts, which turned out to be four, after LIZ. Meanwhile, Col Kirklighter continued to put in airstrikes at LIZ. We picked up 31 sorties north of DELTA 1. I moved out to the vicinity of LIZ and assumed the responsibility for the LZ as Col Kirklighter went to refuel. We inserted 31 sorties without incident. It's notable here that we did not go to the high ground LZ. This time we went to a low ground LZ because the high ground was unacceptable. There was just too much antiaircraft fire. About this time Col Kirklighter came back on the scene and I left. Thirty-one more sorties were inserted, but during that insertion two aircraft were shot down in the LZ, and the crews were subsequently extracted. I then took four aircraft back to DELTA, and cleaned up the PZ into LOLO, and that was the day's activity.

CPT GOERTEMILLER:

Our objective as stated by BG Phu, was to provide a security link between LZ LOLO and another fire base which was to be Fire Support Base SOPHIA II. This would also be a staging area for the 1st Regiment operations to the south once the area of Tchepone had been taken. We talked for many hours about what had to be done, and what the best way to do it would be. We decided to follow this sequence of events: Continue LOLO in that order, and then go to LIZ when it was ready. We had no time estimate of when LIZ would be ready or when LOLO would be finished. Things were a lot slower than we had hoped.

MAJ CLARK:

This is the first time we departed from the high ground concept. This one was actually in a little draw. There was high ground on both sides of it. The high ground to the south was the first intended LZ. It was actually the lowest ground anywhere in the area. We placed the three Air Cav troops supporting the 1st ARVN Infantry Division as follows: C Troop, 7/17th along Route 9 to the west; A/2/17th reconning the LZ; and B/7/1st screening south of the LZ. When they got into the area, about 0800, B/7/1st joined up with the C&C and started coordinating and controlling the airstrikes for LIZ.--My troop, A Troop

joined up with the C&C and we started screening south of LOLO. I was given the ARA sections to screen around the LZ, and a section of ARA east of the LZ. We continued this throughout the day until the insertion was completed, and the heavy lift was completed. Our primary mission here was to try to detect mortars and stop any ground fire that the slicks might be taking or the heavy lift might be taking coming into the LZ. After this was completed, which was around 1345, A Troop moved to LZ LIZ and we started to recon LIZ. As soon as we got into the area we detected a 12.7 position. The weapon started firing at us, and we engaged this target and destroyed it with the gunships. Then we started selecting targets for the TAC air, targets we thought were important on the ridge line where the LZ was preplanned. We placed airstrikes on this area throughout the afternoon. About 1530 one airstrike opened up trees and found a 300-meter trench line on the intended LZ, which had 15 12.7mm positions located throughout the trench line and tree line. We placed airstrikes on these positions. Airstrikes destroyed seven positions and 200 meters of the trench line. We continued to VR the area. We could not find an acceptable LZ in the high ground, and we started to work the intermediate ground between the escarpment and the high ground where the intended LZ was. Again we picked up 12.7mm fire. We destroyed one weapon with Cav fire and a second with airstrikes. At about 1615, continuing with the VR, we located three more 12.7's, all of them active. These were engaged with cavalry and airstrikes, and they were subsequently destroyed. At this time we thought we had all the 12.7's destroyed. We had not taken any small arms fire. The only danger we saw were some huts and buildings out to the west. This was passed on to the Air Mission Commander and as the assault started we shifted to start hitting targets to the west. The reason that we picked the intermediate ground for the LZ was because the highest ground was heavily vegetated. We had not destroyed all the vegetation, and we thought there still could be some 12.7's in the heavy vegetation even though we had knocked out 12 to 15 weapons. The LZ that we did pick was in an open area that had been blown out by a Daisy Cutter. It was a large, dark brown area surrounded by a burned out area which could be easily identified by the pilots coming into the LZ. The haze again was getting pretty bad that afternoon. We recommended an approach that we had flown over for about three hours and had not taken any fire. We had prepared the area with airstrikes and ARA. The decision for the LZ was reached through the cavalry commander and Col Kirklighter.

We had to go with the brown area surrounded by the black area. I got up there and identified this area for the Ground Commander from the air. He did not like it. I told him that the Air Mission Commander said this would have to be the LZ. He did not offer any opinion after that. This just had to be it if we were going to get into LIZ. It had to be there. He wanted an alternative between LIZ and LOLO. Then we told him if he wanted an LZ between LIZ and LOLO we would have to repeat the preparation process. The choice was really between LIZ and putting a battalion into LOLO and having them walk to LIZ. He said, "OK, go ahead."

GEN BERRY:

While you are discussing alternate LZ's, I should point out that at 1614 while you were observing the preparation of LZ LIZ, I talked by radio with BG Meyer who was at Gen Lam's headquarters and BG Phu's headquarters. I requested Gen Meyer to get from Gen Phu an alternate LZ to the LIZ area. I recommended landing of the troops at LOLO. What I had in mind was the poor and decreasing visibility and the heavy antiaircraft fire in the LIZ area. I believed it might be more sound to go ahead and land those troops designated for LIZ on LOLO that evening, and then the following day, make a combat assault into the LIZ area. The word came back from Gen Phu that he would select no alternate LZ's. We had to go into the LIZ area. Let's review the fire support thing if you want to. At 1225 hours, 4 March, at 1st ARVN Inf Div headquarters, LTC Byers, then the senior advisor, related to me by radio that Gen Phu wanted the combat assault on LIZ without waiting for the artillery preparation from LOLO itself.

MAJ KLOSE:

The troops that went into LIZ came from the north side of Fire Base DELTA. We had three separate C&C's. Col Kirklighter had one slick from KILO as his. I borrowed one from AUCTION, and AUCTION came up with another ship to be the alternate C&C. One was working LIZ, one LOLO, and one was on the PZ. Col Kirklighter would cover LOLO while I was refueling. It's a case of staggering all the key people on refueling, so any one of them can mind the store while the other is gone. These things could be planned in the future, but there is no guarantee things would work out that way. It seems to work out pretty well as long as you can figure out the fuel state everyone has and decide

who has to leave and when.

BG JOHN HILL, CG, 1ST BDE, 5th INF DIV (MECH):

What happens when the C&C ship is shot down or has mechanical failure? That is one situation, but I am talking of when the battle has changed and then we have to do something different with the troops. If C&C is shot down the cavalry commander can go ahead. If you have to change the battle plan then you get a different deal.

GEN BERRY:

If Gen Phu had been in the ship with me at the time, you would have had a situation which could have dealt with a change in battle plans. Under the circumstances under which all of these have been flown, a drastic change in the battle plan would have required my flying back and landing to talk with Gen Phu.

MAJ KLOSE:

As to the vulnerability of a primary C&C ship with the key staff aboard, I have serious doubts, on the ARVN side of the house, that they would have a second team ready to take over.

GEN BERRY:

Discussing the command decisions during LIZ, there was a series of consultations by radio going on between me, over LIZ in an aircraft, and BG Phu on the ground at his headquarters. That discussion was conducted through the intermediary, Gen Meyer and LTC Valz. I was relaying back the situation to these two individuals who were in turn relaying them to Gen Lam and Gen Phu. This was their combat assault. The leading example is that of my recommendation of an alternate LZ. At the same time, from the air over the operation, I was talking by radio to the XXIV Corps G-3 and keeping him informed. This, gentlemen, is in no way an alternative for an alternative command party and command ship, but at least there was some continuous consultation going on. Fortunately, we did not have a situation that required a drastic change in the battle plan.

COL DAVIS:

Was Gen Phu so located so as to direct the operation?

GEN BERRY:

I think the answer is probably yes. He had two regiments and was in his CP. At the same time his senior advisor was monitoring the FM radio over which both LIZ and LOLO were being conducted. His Air Liaison Officer was, I guess, monitoring both FM and UHF and telling him about the airstrikes going on. His advisor, LTC Valz, was doing a very good job of keeping abreast of what was critical, LOLO completion and the preparation of LIZ. I venture to guess he probably was at the most critical spot until, perhaps, the landing on LIZ. I think he was in the right place, and I think the key decision makers were there at the LZ.

COL DAVIS:

We have not completed the discussion of TAC air.

MAJ MAHONEY: (speaking of LIZ preparation)

We did have 34 sets of air. From 0707-1015 we used 13 sets of air that were LZ construction. Four of the first six had Daisy Cutters for LZ construction. From 1015-1723 we put in an additional 15 sets of air. From 1723-1814 we put in three other sets.

MAJ KLOSE:

It is our opinion now that the actual LZ used for LOLO was a misplaced Daisy Cutter and it worked in our favor. In the future, when we prepare an LZ we are going to have to prepare several places to touch down. I would say it would be ideal to have aerial photography so that we could see the actual condition of the high ground. Then we could sit down with the FAC's, tell them where we want the Daisy Cutter, where we want the Commando Vault, both on high ground and an alternative. We could take a Leica, put it in the front seat of a Gobra and come back and develop it this afternoon and have it.

GEN BERRY:

You can also have an alternative touch down point on the same That's really what we ended up doing on LIZ. We had three different touch down points within the same objective area. Also, I want to ma this point: anyone flying C&C ships should restrict himself to that jo At 1815 there came word that there were wounded on the LZ. The Battalion S-3, with one other ship, very courageously and admirably came in to pick up wounded and got two ships hit and did not get the wounded out. From a professional standpoint there were several thing wrong with that action. One - that was not his mission. His mission was to run the operation. Two - he did not coordinate with the people on the ground and insure that the wounded were ready for extraction prior to going in. Therefore, a very brave act could have been disastrous to two ships and crews and resulted in the elimination of a key command and control ship.

MAJ KLOSE:

I dropped two parties at LOLO. The regimental commander asked me to get the wounded. That's when I made the decision to take the one remaining ship with me.

COL DAVIS:

Please summarize the key points.

MAJ CLARK:

The visibility those two days was limited to the west. Anyone from the west looking east could see us and take us under fire, but we gave up the ability to identify the source of the fire. On the weapons in the LIZ area, we had 12.7's and small arms fire. We were taking hits with small arms right around the LZ. We are probably not prepping the LZ's as well as we should. Hereafter, we have got to prep them better. LIZ was almost blown away, yet there were nine aircraft hit. We had four accurate 12.7mm positions working on us within 100 meters of the LZ. Those four survived the ARA, and they didn't open up until the slicks started going in. Also, this is the first incident I've seen of a double 37mm mounted on the back of a truck.

MAJ KLOSE:

Khe Sanh is the main logistic center for this operation. It we had to go any further west than SOPHIA or HOPE, we would have to have a resupply base at DELTA 1. Our rearm and refuel stations almost have to be as mobile as the forces they support. It might mean dedicating heavy lift to this purpose alone. Can an airmobile division support itself by air?

GEN BERRY:

Non-divisional infantry and mechanized units have been supporting our airmobile division, so you cannot be talking about the airmobile division operating in a vacuum. If we had to secure our own rearm/refuel points we would have eaten up a major portion of this division simply in securing logistic installations for aircraft.

COL DAVIS:

We have about two airmobile divisions worth of aircraft working the area - some 781, I believe. Not all of us work out of here. We have a sanctuary here, a relatively secure base from which we operate.

MAJ KLOSE:

There was debris aloft at LIZ. In addition to the particles in the air, there were things larger than we normally encounter in the air. Also, the ARVN requested five ARC LIGHTS, three of which were to the south of the LZ. We moved 175 sorties of people from field locations to LOLO and LIZ, as a group, starting with 40 slicks and ultimately getting down to 31. Once we got this thing in motion we kept it in motion all day, and were able at the end of the day to conduct a successful combat assault. If you lose the inertia you have got to build it again. In essence, we kept these people occupied working LOLO and then put them right into LIZ with very little lost motion. If we have an all-day job working our way into an LZ, and the crews are doing other things, we have to put them together to capitalize on the insertion. It's not as efficient as using them as a unit.

COL DAVIS:

So, in essence, what you are saying is that you have a primary mission to combat assault. The AMC must have time to adequately prepare and brief his aircrews and they cannot be fragmented and then be expected to form an instant combat assault in a complicated environment and expect it to come off successfully. We've proven this time and time again. If you put something together bad, that is how the operation is going to turn out. This is something we want to make sure we don't violate in the future.

MAJ KLOSE:

Another very inportant factor that we have learned is the importance of the lead aircraft. If that first bird cannot find the LZ then the whole mission falls apart, and you have a hard time getting the whole thing straightened out. You may never get it straightened out. Another lesson learned: regardless of the direction and type of fire, at the last minute you have got to make your landing into the wind. We've tried to solve the problem by using a short buttonhook - come in with the wind, cut a sharp 90 degrees in the last 35 seconds.

SECTION VI
COMBAT ASSAULT
LZ SOPHIA
5 MARCH 1971

A. (C) GENERAL

1. CONCEPT

SOPHIA (XD 3440) was the final fire base that was to be established prior to the assault into the Tchepone area. From SOPHIA, the assault into Tchepone could be supported by the 105mm battery that was to be inserted.

2. MISSION

Even while the assault of LZ LIZ was in progress, preparations were in progress for step three of the push along the escarpment to LZ SOPHIA. During the LIZ insertion, the 2d Sqdn, 17th Cav continued to screen to the west and south. This provided early reconnaissance of the SOPHIA area. Because of poor visibility in the LIZ area, it became dangerous for helicopters and Air Force fighters to operate in close proximity to each other competing for air space. The FAC's were directed to drop their ordnance in the SOPHIA area as preparation for the following day. The 2d Regt, 1st ARVN Inf Div was given the mission to air assault and secure LZ SOPHIA. They were then to establish a fire base for the receipt of 105mm howitzers to provide artillery support for the final move to Tchepone. The plan called for the heavy use of air assets to deliver fire power to the SOPHIA area and to conduct reconnaissance to the northwest toward Tchepone. Six 105 mm howitzers were to be moved to SOPHIA to provide tube artillery support for the final assault. Two battalions were to land on the escarpment, secure SOPHIA and then proceed northeast to the Xe Pon River to secure a river crossing for a possible ground withdrawal route after the assault on Tchepone. The plan included inserting 1134 personnel with 164 UH-1H lift sorties into the SOPHIA area. In addition to the 1st ARVN Inf Div air assault to SOPHIA, the VNMC Div conducted a troop insertion involving 60 UH-1H sorties to a field location south of DELTA on the afternoon of 5 March.

3. WEATHER

On the morning of 5 March the cloud cover was scattered and broken with early morning ground fog that dissipated around noon. By

[redacted]

1300 hours the weather had improved to such a degree that it was of no tactical significance. As the day progressed, the possibility of conducting operations into the evening was considered should the insertion take longer than expected. This was the first day of desirable weather since the direction of the attack was diverted and directed along the escarpment to the south of the river.

B. (C) EXECUTION

1. ENEMY SITUATION

Aircraft in the SOPHIA area on 5 March were engaged primarily by 12.7mm and small arms fire. Elements of the 14th Antiaircraft Battalion and the 17th Antiaircraft Battalion were reported in the vicinity of the LZ. It is believed that artillery fire on SOPHIA was delivered by Volunteer Company 34 which was reported in the vicinity of XD 3338. Two weapons companies from the 35th Engineer Battalion were also believed to be in the area. It was logical for the enemy to suspect an assault in the vicinity of SOPHIA following the previous two days' assaults along the escarpment and the preparation of the area during the insertion of LIZ on 4 March.

2. COMMAND AND CONTROL

The chain of command for the ARVN ground unit was from I Corps to the 1st ARVN Inf Div to the 2d Regt, all at Military Post near Khe Sanh. The CO of the 2d Regt, 1st ARVN Inf Div, was the Ground Commander for the insertion on LZ SOPHIA. The AMC was the CO, 223d CAB. The alternate AMC was the XO, 223d CAB. The AMC picked up the GC at 0800 hours on 5 March at Military Post and proceeded to the LZ area to observe the air cavalry reconnaissance and direct the preparation of the LZ by airstrikes. The preparation began at 0830 hours. Because of bad weather the assault was delayed until early afternoon and the preparation continued throughout the morning. The UHF radio net was used to control the aircraft during the assault. The VHF radio net was used to control all attack helicopter assets. The FM radio net was used for routine traffic and for coordination with the Air Force FAC. The downed crew recovery was controlled by the alternate AMC.

3. RECONNAISSANCE

A Troop, 2d Squadron, 17th Cav received the mission of reconnaissance, LZ preparation, and provision of security in direct support of an airmobile assault on LZ SOPHIA. A Troop's reconnaissance teams consisted of two AH-1G attack helicopters and one UH-1H command and control helicopter for coordinating the reconnaissance effort and LZ preparation. A Troop's commander elected not to use the OH-6A in anticipation of a heavy volume of antiaircraft fire. A Troop, during a visual reconnaissance of the high ground to the west of the LZ received 12.7mm fire in the vicinity of XD 322419. The reconnaissance team marked the position for the FAC, and airstrikes silenced the weapon. Further reconnaissance of this area revealed a 200-meter V-shaped trench line with the open end of the "V" oriented toward the south. Numerous bunkers and 12.7mm positions were located throughout the area. A Troop continued to direct airstrikes in this area. With airstrikes being employed to the west, A Troop made a visual reconnaissance of the LZ and the approach route from the east over the escarpment with a tight right turn to the north just prior to reaching the LZ and a left descending turn back south into the LZ. This pattern would prevent the lift aircraft from stacking up on final approach to the LZ. Antiaircraft weapons would have difficulty in accurately adjusting fire with the lift ships flying in three directions, one of which was a descending turn into the LZ. The other aircraft could easily observe any problems in the LZ and adjust their pattern accordingly. The departure route recommended was east and back along the escarpment. The AMC concurred with the Cav recommendations and A Troop directed airstrikes in preparing the LZ and the routes. Airstrikes were also employed on numerous huts and trails to the northwest in the vicinity of XD 341416. This location was passed to the AMC as representing a possible danger area during the insertion. Recommendations were made for the smoke screen drop between coordinates XD 355402 and XD 341392 and, during the insertion, for airstrikes on the high ground to the west. The AMC concurred with the recommendations and A Troop was given control of the TAC air and three sections of ARA to coordinate and provide adequate security during the insertion. A Troop marked the coordinates for the smoke drop and directed the FAC to shift the airstrikes on the high ground to the west. A Troop made one final reconnaissance of the LZ and did not receive any fire. The LZ was

marked for the AMC who marked it again for the UH-1H aircraft approaching the LZ. A Troop then employed the three ARA sections a CAP over the LZ and provided security in a low CAP near the huts The first lift into the LZ received small arms fire in the vicinity of the huts. A Troop detected the enemy positions and immediately suppressed the fire. ARA was not employed because of the aircraft congestion in that area and the fact that the fire had been immediately suppressed. A Troop was diverted to the east of the LZ by the AMC search for two aircraft that had reported receiving fire and having to make emergency landings. ARA remained in a CAP over the LZ and A Troop continued to search for the downed aircraft, with negative results. A Troop returned to the LZ to provide security to the south against possible antiaircraft positions until the insertion and heavy lift were completed.

4. STAGING

The staging of aircraft for the assault on LZ SOPHIA on 5 March 1971 took place at the Lagger Pad, Khe Sanh combat base. The aircraft reported from their home stations in company flights between 0800 and 0830 hours. The crew briefing was given by the S-3, 223d CAB at 0900 hours.

5. PICKUP ZONE

The flight arrived at PZ OSCAR (XD 860384) at 1250 hours under the control of the alternate AMC, the XO, 223d CAB. Some confusion arose from the fact that the pilots were briefed that the PZ would be KILO. The PZ was actually OSCAR Pad, which is approximately 300 meters west of KILO. There were no C&C aircraft or gunships assigned to the PZ since it was in close proximity to Khe Sanh combat base.

6. FIRE SUPPORT

The planned preparation of LZ SOPHIA consisted entirely of ARC LIGHTS and TAC air strikes. ARVN artillery was not planned for the preparation, although one battery of 155mm howitzers located on LZ LOLO was within range. LZ SOPHIA was not within range of 175mm artillery from the 108th Artillery Group located along the Laos/

Vietnam border. Preparation of LZ SOPHIA began on 3 March with three ARC LIGHTS being employed in the vicinity of the LZ. Two of these ARC LIGHTS were employed directly on the LZ with the center of mass at grids XD 345415 (1400 hours) and XD 345405 (2126 hours). The third was employed two and a half km to the west of the LZ with the center of mass located at XD 315470. On 4 March at 2300 hours one ARC LIGHT was employed two kilometers southwest of the LZ with the center of mass at XD 335395. Seven ARC LIGHTS were employed from 0115 to 1205 hours on 5 March on suspected enemy strongpoints along the flight path, and two directly on the LZ. These ARC LIGHTS were employed at grids XD 330415, XD 330405, XD 345415, XD 345405, XD 314415, XD 305420, and 377442. From 0805 to 1330 hours, 5 March, 23 sets of TAC air were employed in preparation of the LZ with the Cav identifying specific targets to the FAC. A total of six Daisy Cutters were employed from 0805 to 1231 hours. Other ordnance consisted of 500 pound bombs, napalm, cluster bomb units (CBU), 20mm fire, and smoke. Prior to the insertion time of 1321 hours, the regular FAC working the LZ area returned to Quang Tri with mechanical problems. At 1321 hours a replacement FAC arrived on station and stated that a set of air with smoke was on station. The Cav marked the area east of the LZ for smoke with WP, and the area was identified and marked correctly by the FAC. The FAC was instructed to employ the smoke along a north-south line. However, the first smoke was employed along an east-west line. The second smoke was directly on the LZ. This misplaced smoke hindered and added confusion to the insertion. ARA provided three sections for a CAP of the area. Throughout the insertion the fires of ARA were not called for even though there were active enemy antiaircraft positions. Of significant interest is the fact that the distance from the nearest rearm/refuel point necessitated the use of three sections (seven aircraft) to provide continuous ARA coverage. Unlike previous combat assaults, the ARA aircraft were not used by the Cav teams on station to engage targets they had detected by low altitude VR.

7. PICKUP ZONE TO LANDING ZONE

The flight departed the PZ at 1300 hours. The flight route was from the PZ to HOTEL to DELTA 1, then north to the river, west along the river to the RP which was a bend in the river at grid XD 3643. The flight initiated a descent at the RP on a 210 degree heading. The descent continued on this heading until, at approximately 50 feet above the ground, a left pedal turn was made into the LZ, terminating in a landing to the east. The aircraft departed the LZ on a 030 degree

heading. The flight then followed the river back to Khe Sanh. Enroute altitudes were 6000 feet from the PZ to LZ and 5500 feet from the LZ to Khe Sanh. All aircraft refueled at Khe Sanh prior to each pickup at the PZ. Enroute armed escort was provided by AH-1G and UH-1C gunships which were flying to and from rearm/refuel at Khe Sanh combat base. While enroute the first lift received both 12.7mm and small arms fire from an area west of ALUOI. Four aircraft were forced down on or around ALUOI as a result of this fire. UH-1C gunships engaged this area but were not able to neutralize these enemy positions. The first lift also received 12.7mm fire from the low ground along the river, vicinity XD 3842. This area was silenced by UH-1C gunships. In spite of heavy engagement by gunships all subsequent lifts received fire from the area west of ALUOI.

8. ASSAULT

The assault of the 5th Bn, 2d Regt, 1st ARVN Inf Div on LZ SOPHIA began at 1321 hours when the first lift aircraft touched down on the LZ. The first lift aircraft that departed the LZ received fire from the escarpment northeast of the LZ. Other aircraft of the first lift later received small arms fire from huts to the northwest while approaching the LZ. Escort Cobra gunships engaged the targets on the escarpment while A Troop, 2d Sqdn, 17th Cav Cobras silenced the fire from the huts. The second lift encountered enemy small arms fire in the LZ from a trench line to the west. Cav Cobra gunships were used to engage and silence the area. The continued small arms fire from the escarpment could not be suppressed due to the close proximity of friendly troops, who were moving toward these enemy positions. The third and fourth lifts received no enemy fire near the LZ. The enemy positions on the escarpment which were engaging the lift aircraft departing the LZ had been neutralized by friendly ground forces. Close fire support during the assault consisted of two teams of escort Cobra gunships, two teams of UH-1C gunships, one ARA team and one Cav team. Two escort Cobra teams provided coverage for the lift aircraft approaching and departing the LZ. The ARA team provided a CAP over the LZ. The Cav team engaged targets first to the west and then to the south of the LZ. The UH-1C gunships were used north of the escarpment along the river on the valley floor. Only one of the eight aircraft hit near the LZ was shot down. This UH-1H received numerous hits on the approach to the LZ but did not go down until after it departed the LZ area while the aircraft was in the process of

attempting to return to Khe Sanh. During the third and fourth lifts UH-1H aircraft were used to extract injured ground personnel. The loading of wounded required more time and this caused the flights to swing to the west for spacing. This took the flight over additional enemy positions north of the escarpment and the river. This area was engaged by UH-1C gunships. To avoid this enemy fire the flight stopped swinging to the west, kept its reduced spacing and landed two and three aircraft in the LZ at one time. The assault of the 5th Bn, 2d Regt was completed at 1517 hours. The insertion of the 4th Bn, 2d Regt, 1st ARVN Inf Div immediately followed. At 1535 hours the medium/heavy lift aircraft created both spacing and timing problems in the LZ. The insertion of the 4th Bn, 2d Regt was completed at 1646 hours. The medium/heavy lift movement was terminated at 1830 hours as a result of poor weather.

C. (C) SUBSEQUENT ACTIONS

1. AIRCRAFT DAMAGE

Ninety-one aircraft participated in the assault on LZ SOPHIA. Sixteen aircraft were hit, 12 UH-1H and four UH-1C. Nine aircraft were hit by small arms fire, five were hit by weapons 12.7mm or larger and two aircraft were hit by an unknown type of fire. Six of the 16 aircraft hit were classified as combat losses. Five of the other ten aircraft hit returned to Khe Sanh and were determined to be in a non-flyable condition. Eight aircraft received damage on take off, landing and in the LZ. Two UH-1H's were damaged while on a recovery mission and the remaining UH-1H was damaged while enroute from the LZ. The 91 aircraft (63 UH-1H's, eight UH-1C's, and 20 AH-1G's) flew a total of 303 hours and a total of 979 sorties.

2. CASUALTIES

Of the 16 aircraft hit only three of the crews sustained injuries. One UH-1H aircraft was hit while approaching the LZ. The aircraft commander reported that the aircraft was hit and he was attempting to return to Khe Sanh. Shortly after this transmission a FAC reported seeing a helicopter going down in flames. The aircraft and crew that reported returning to Khe Sanh never arrived. Neither the aircraft nor the crew have been located. The four crew

members have been classified as missing in action. The aircraft commander and pilot of another UH-1H were hit by small arms fire. The aircraft commander received minor facial cuts and a foot wound. The pilot sustained a minor wound in the left ankle. The aircraft commander was evacuated to CONUS; the pilot was hospitalized in Vietnam. A door gunner on another UH-1H was hit in the left leg by small arms fire. He was treated in a hospital in Vietnam.

3. DOWNED AIRCRAFT RECOVERY

Seven aircraft were shot down during the assault, six of which were destroyed. The remaining aircraft was recovered on 6 March.

SECTION VII
AIRMOBILE STUDY GROUP
COMBAT ASSAULT ON LZ SOPHIA
5 MARCH 1971

12 MARCH 1971

GEN BERRY:

At Gen Lam's evening and morning briefings on 5 March, the day of the combat assault on SOPHIA, he emphasized the necessity of combat assaults against the HAIDONG, HAIPHONG, HOPE area in the vicinity of Tchepone on 6 March. He emphasized once again that, for the assault on the Tchepone area on 6 March, it would be a political as well as a military objective. He hoped to put four battalions into the Tchepone area. He had to put in at least one company, and would do whatever was necessary to put that one company into the Tchepone area. He said we must be in the Tchepone area by 6 March. There was no alternative. At Gen Lam's regular morning briefing on 4 March and at 1740 he focused on the SOPHIA assault for the next morning. He directed that there be a FAC for the Cav. He would be carrying out reconnaissance both in the SOPHIA area and the Tchepone area. Both at the 1740 hours, 4 March briefing and the 5 March morning briefing, there was discussion on SOPHIA. The emphasis was that SOPHIA must be captured in order to move on and take Tchepone. SOPHIA would be a firebase on which there would be six 105's, essential to the assault of Tchepone on 6 March. The mission of the two battalions that would go into SOPHIA was to secure the high ground along the escarpment and build fire bases for operations in the Tchepone area. The two battalions would move west and northwest along the escarpment to conduct search operations. They also were to secure a river crossing northwest of the SOPHIA area for the two battalions, which would give them a secure river crossing to fall back on.

LTC KIRKLIGHTER CO, 223d COMBAT ASSAULT BATTALION:

On the morning of 4 March, at the 1st ARVN Inf Div briefing, Col Chung, the 2d Regiment commander, pulled me aside and said that on the 5th he would be going into SOPHIA, ultimately to go into Tchepone the following day. He said the combat assault into Tchepone would be given

top priority, (and on the 6th he would attack Tchepone with a squad, a platoon, a company, or whatever else he had left.) At 0830 once we had ourselves oriented in the area in which we wish to put air-strikes on, I was notified by the FAC they had already put four to five sets of air on SOPHIA. We discussed various areas with the Cav Squadron and came to the common agreement on what targets and areas should be struck. A list of these areas was made and the preparation was initiated at 0830. The air was stopped (leaving the area high and dry) and the Cav went in. On two different occasions they went in and drew 12.7mm fire. We pulled them back out and started the preparation again, hitting specific targets the Cav troops had located, and concentrating heavily on gun emplacements. This went on at least another hour. At this time the Cav went in again and made another detailed examination of the area. I was told by the Cav lead that particular day that the LZ would be adequate, and that there were small stumps in the LZ. This recon was complete. That will take up through the preparation phase.

COL DAVIS:

I would again like to point out the extensive use of the Cav troop. It has been essential to have a Cav troop in direct support of the combat assault. This really represents a much more extensive use during a combat assault. The LZ time was more of a planning factor than a fixed point. This was demonstrated by the Cav recon, and the additional airstrikes. It was accomplished only after the determination that a satisfactory prep had been made. I believe it was understood the night before that with the bad weather we had been having the 0900 LZ time would not be made. The major importance of the 0900 LZ time was that the slicks would be ready at that time.

GEN BERRY:

On the previous day, 4 March, as I talked with XXIV Corps representatives about the LZ time of 0900, I said that I would think 1100 hours would be a more likely time. I told the XXIV Corps G-3 that we had to go with the Vietnamese planning time, but considering the likelihood of bad weather and the need to recon the area and put in additional fire power, that an 1100 hours LZ time would be more likely. After looking over my notes I took in the helicopter over the

LZ, I now recall that on the early morning of the 5th there was bad weather. I was over the LZ and was bothered because no one else was there. I recall now that there was a 2400-foot ceiling in South Vietnam and unlimited ceiling in Laos with broken cloud cover 2400-3000 feet over the LZ. I recall now that the Cav had tried to get out right after I was lucky enough to get out.

LTC KIRKLIGHTER:

The first set of flights went in at 0933. They could not get through until that time.

MAJ KLOSE:

The ridge line was covered by rather tall trees. These trees were on both sides of the pencil-thin ridge line. I estimated the ridge line to be no more than 30-40 meters across.

LTC KIRKLIGHTER:

In 1966-67 in the III Corps area, we didn't have the benefit of a Cav troop for recon, that being normally done by the AMC. Making low passes at the LZ was the mission of the gunships. I think for the first time we see airmobility working as a team. It's impressive that we have massive TAC air when we are going up against this type of environment. We have to have priorities, realizing that sometimes you are going to have to go with fewer sets of TAC air if there is a higher priority mission. An early recon of the LZ and then several recons in the LZ prior to the troops arriving is just essential. Otherwise you have the question in your mind, "Is the LZ adequately prepared to receive assault troops?" I don't think I have been disappointed one time with the Cav troop's recon. The CAP cover we have been getting from ARA is another vital aspect of that teamwork. I would say again that the only disappointment I have had here is artillery. We just don't seem to get the artillery fire. It used to be that the artillery would hit the LZ and then be shifted to one flank or another, to provide some cover and to prevent the enemy from exiting the area. Air, ARA and Dustoff have been just absolutely outstanding. Once again we are going to discuss the organization for combat and formations required of the ground forces. This has never been a consideration that has affected our flight formations and landing formations other than the requirement to retain a battalion integrity.

COL DAVIS:

On SOPHIA itself how many ships could touch down at one time?

LTC KIRKLIGHTER:

One, but you might see two ships at a time. Two ships get on the ground when there is a mix-up and one of the ships gets too close. The spacing is bad, but you can get two ships in. I was always afraid of blade strikes. There were stumps in the LZ eighteen inches to two feet high, also the tall trees.

GEN BERRY:

You know, a surprising thing to me is that back in 1967-68 anything smaller than a five-ship LZ was considered peanuts. Another amazing thing to me is the large number of troops we are putting in these one-ship LZ's. I don't believe it was envisioned by the early creators of airmobility. I think it is something that has developed through necessity. It is an extension of the capability of airmobility.

MAJ KLOSE:

This also explains why we are not taking more hits enroute. If we had a staggered trail left or right it would help. I think we are going to do this more often. I consider this being a mid-intensity air-defense system. Large formations flying overhead force the enemy to fire all of his antiaircraft weapons. I have two points to make on the formations. One, in a mid-intensity environment, we have good information on how many aircraft were hit, but we have no idea how many rounds were actually fired at our aircraft. If we increased the density of our aircraft the number of hits would increase. If we increase the number of ships in a given area or air space we would also increase the number of hits. There is alot to be said for formation flying in other than this type of environment. Behaviorally, a man flying in a formation is concentrating on his place in the formation and his relation to the other aircraft. He is interested in maintaining his place, and in nothing else. In the single trail-type formation the importance of the aircraft commander increases, for he is responsible for everything his aircraft does or fails to do. He must make many decisions in the single-ship thing. The 30 second separation has 60 flight leads

versus six. In these 60 leads, anyone of these 60 has it in his power to upset the whole operation.

LTC KIRKLIGHTER:

When we were working down around HOTEL 2 we were PZ-ing out of KILO and we had four aircraft join in on the trail of another flight. They went to the RANGER LZ where we had to police them up. They say th the lead aircraft knew where his LZ was but he just caught on to the back of another flight. I think that in many respects the single-ship is tougher. Briefing is absolutely necessary. There was a drastic change in the case of flight routes. We flew from DELTA 1 over BROWN and LOLO to LIZ then to SOPHIA. We kept out of the river west of LOLO. There was a tremendous amount of antiaircraft. Another idea is that flying over the fire bases provides certain safe havens for the aircraft in case they experience some mechanical failure enroute.

MAJ KLOSE:

At 1400 hours there were two ARC LIGHTS to go in northeast of LOLO, and this is another reason we tried to stay close to the high ground.

GEN BERRY:

As I review this from some messages received from the CO and S-3, 223d CAB, they were telling people to get out of the valley and get up on the high ground. Whenever people got in the valley they were shot up, and I think we lost some people because they flew in the valley.

MAJ KLOSE:

None of my lift went into the valley, and everyone was told to stay on the high ground. My XO experienced engine failure and had to sit down in ALUOI. That was because he was coming out of DELTA 1, and trying to get to BROWN. That was the closest place he could get to. It's a natural tendency for everyone to try to follow rivers, roads and valleys because these are easy navigations. Flight discipline is very necessary for safe flight. One problem we ran into in this type of environment is that members of the same organization tend to follow one another. This is a survival instinct. The people

were briefed and knew what they were supposed to do, but at the time it happened one reacts instinctively and his emotions take over.

GEN BERRY:

That is in the organization and the briefing. Everyone knows that a chase ship will take care of downed pilots and that everybody must stay on the mission regardless of what happens.

LTC KIRKLIGHTER:

There is nothing in the doctrine about chase function.

GEN BERRY:

As we seek to eliminate losses, we find it more and more necessary to make provisions for downed aircraft. We pulled this chase ship idea out of our pockets. Do advantages of changing air call signs for security reasons outweigh the disadvantages of the added confusion?

MAJ KLOSE:

Right now everyone knows the call signs as people and it would be a little difficult to change. For example, as long as the FAC is in the AO he knows who DRAGON 20 is and who DRAGON 09 is, also OXHORN 20.

GEN BERRY:

It would take two or three days for us to get used to the new call signs. The same confusion would exist for the people on the ground, because the present call signs are what the people on the ground know the people in the air by. I recommend a delay in the SOI change.

COL DAVIS:

Please discuss LZ reconnaissance and preparation.

CPT CURRY, 2/17 CAV:

We arrived at the LZ the same time as the AMC. We first did a high recon. We worked outside to inside. After working the LZ we turned to working the flight route. After we had worked the LZ and surrounding area, to include the flight routes in and out, we took a final look at everything before the first lift came in.

GEN BERRY:

What is the principal weapon used against antiaircraft fire?

CPT CURRY:

Well, the cannon I guess, but really airstrikes are the best thing to put on antiaircraft positions.

GEN BERRY:

I think that airstrikes are the best thing to use on antiaircraft guns or bunkers. Let the low level recon find the enemy and then call in airstrikes to kill the enemy.

LT LEIGHTON ALO, USAF:

From 0805-1330 we had a total of 23 sets of air. The first two sets of air were Daisy Cutters. From then on they were Daisy Cutters, CBU, snake and napalm. At the planned LZ time, of 1000, we had three sets of 500-pound bombs (snake), napalm and 20mm. At 1315, LZ time, we had a set of snake and napalm on station, and we had another set of CBU. From that time on, when we started to go in, the targets around the LZ were hit and helicopters reconned up to the HOPE area. After this there were three sets: 1515-1536 snake and napalm; 1700-1725 snake and napalm; 1805-1927 snake, napalm and CBU.

GEN BERRY:

According to my figures the touchdown time was 1321 hours. Then almost at the same time, HAMMER 40 checked in and said he had smoke. He had just arrived in the area and he asked for a brief target plan.

The point is there was no smoke and no FAC in the air. At 1326 they were in the midst of telling where the smoke was to go. There were three WP markers set down indicating the line of the smoke and it was generally to the east of the target. The AMC reported the smoke should go in on the target on a north to south line.

The following was taken from the notes of a member of the Airmobile Study Group:

LT LEIGHTON:

The regular FAC for the area was diverted back to Quang Tri because of mechanical failure. That FAC that took over did not have the charts for his area. FAC's work certain areas all the time, so they are the only ones with all the information.

GEN BERRY:

How can we keep a FAC in the AO at all times?

LT LEIGHTON:

There are six FAC's for each mission with six more as backup. If one FAC has mechanical trouble 30 minutes out of Quang Tri and only a ten minute overlap is planned there will be a time over the AO when there is no FAC.

LTC KIRKLIGHTER:

The Cav marked the spot for smoke with WP. This spot was identified by the FAC, and he marked it. The smoke went east to west on the south side of the LZ when it should have gone north to south. The second smoke was right on the LZ. The Cav reported numerous 12.7 mm pits in the tree line. At both HOPE and LIZ the ARVN wanted high ground, but high ground gets hits from 360 degrees.

GEN BERRY:

On 3, 4, 5, and 6 March the high ground was the most dangerous; and

on down the slopes was safer. HOPE was a good LZ because it was selected at random so the enemy could not defend: LIZ was good because it was down in a bowl, and the enemy could not adjust.

MAJ KLOSE:

If the lead slick fires one hundred rounds it is a good day. There is too much restriction on the door gunners. What we need are definable limits so gunners can fire enroute and at the LZ.

COL DAVIS:

The gunners can fire up to three hundred meters of the LZ, but then must stop. The ARVN set limits for firing. The friendlies move out fast, and give no positions, so gunners cannot safely fire.

LTC KIRKLIGHTER:

After an LZ has been prepared with air and ARA, an M-60 is not much good. I don't like secured LZ's. I'd rather go into an unoccupied LZ. When the ARVN secure an LZ we get fire from the LZ. The 23mm, 37mm and 12.7mm antiaircraft weapons can all reach out further than the ARVN can secure. The NVA follow any force of ARVN moving so they can fire at the aircraft.

MAJ KLOSE:

We have a very pragmatic approach. Anything that we do that is unpredictable is good, for it throws the NVA off. Deception is important; any variation makes for a safer LZ.

GEN BERRY:

On the evening of the 5th we tried to get Gen Lam to go for a low ground LZ, but he insisted on going to the highest possible ground. The actual LZ was not, however, on the highest ground. Actually the AMC picks the LZ when he works the area. The AMC can pick the best spot. One thing we could do is brief the ARVN division commander on our findings. This might build his confidence and understanding. Then possibly the Ground Commanders would accept our recommendations.

The Cav commander plays a part in selecting an LZ. Does he speak with the AMC and the Ground Commander?

LTC KIRKLIGHTER:

The Cav commander does get with the AMC the evening before, and at the extensive radio briefing in the morning. The Cav commander does not meet with the AMC and the Ground Commander.

GEN BERRY:

How much flexibility does the regimental commander have?

LTC KIRKLIGHTER:

He is very flexible.

SECTION VIII
COMBAT ASSAULT
LZ HOPE
6 MARCH 1971

A. (C) GENERAL

1. CONCEPT

LZ HOPE was to be the final objective in the western drive into Laos. The assault of HOPE in the Tchepone area was the result of the progression of moves along the escarpment from LOLO to LIZ to SOPHIA; then across the Xe Pon River and the final objective, LZ HOPE.

2. MISSION

The plan called for two battalions to air assault into HOPE with one battalion in reserve should it be needed to lend support to the thrust. Wide reconnaissance by the air cavalry squadron and dispersion during airstrikes were planned to deceive the enemy as to the actual location of the LZ. It was decided that there would be no other air move attempted in the LAMSON 719 area of operations during the HOPE air assault. This would release all assets to support this last vital objective should they be required. It was planned to use 120 UH-1H aircraft to move troops to LZ HOPE. The aircraft were first to move one battalion, and then the other without a break in the insertion.

3. WEATHER

The weather on 6 March was the best encountered during the entire thrust along the escarpment. Relatively little ground fog that morning enabled the cavalry to conduct early morning reconnaissance of the area by 0830 hours. Clear skies and excellent visibility existed most of the day. The weather did not dictate any tactical considerations. The operation got off to an early start and was completed in excellent time during favorable weather conditions.

B. (C) EXECUTION

1. ENEMY SITUATION

The enemy fire in the LZ HOPE area (XD 3347) was characterized by 12.7mm machine gun fire with small arms, 23mm and 37mm antiaircraft fire was also reported. Reports indicated that there were elements of the 16th Antiaircraft Battalion, Binh Tram 32, the 69th Engineer Battalion (4 guns), and the 94th Engineer Battalion (platoon of 12.7mm) in the Tchepone area near LZ HOPE. A great number of 82mm mortars were also reported in the area. The 12.7mm machine guns were strategically placed to cover suspected landing zones. Antiaircraft coverage of airways was provided by larger caliber weapons in the surrounding area. There had been previous indications of radar equipped antiaircraft positions in the Tchepone area.

2. COMMAND AND CONTROL

The chain of command for the ground troops which assaulted LZ HOPE was from I Corps to the 1st ARVN Infantry Division to the 2d Regiment. The 3d Battalion, 2d Regiment, 1st ARVN Infantry Division was inserted first, followed by the 2d Bn, 2d Regt, 1st ARVN Inf Div. The commanding officer of the 2d Regt was the Ground Commander for combat assault of these battalions. Because of distance and heavy enemy concentrations in the area, the insertion of these two battalions required the use of over 120 UH-1H aircraft to assault both battalions simultaneously. These aircraft were broken down into two flights of 60 UH-1H aircraft. The AMC for both flights was the CO, 223d CAB. The AMC coordinated reconnaissance and airstrikes in the LZ area. The CO, 158th Avn Bn was to control the insertion of the second flight. Each of the above aviation battalions had an alternate C&C aircraft to replace the primary C&C when necessary.

The Ground Commander (CO, 2d Regt. 1st ARVN Inf Div) was in the AMC's aircraft directing the assault. Members of the regimental staff were present in the other three C&C aircraft. There were four C&C aircraft, any one of which could have assumed complete control of the operation at any time. Each aviation company sized element was further under the control of the company commander who led the flight.

The aircraft at the PZ were under the control of a C&C aircraft

which orbited the PZ. The only problem encountered at the PZ was when two companies of aircraft did not arrive at the PZ in time for the planned sequence in the first lift of 60 sorties. These aircraft headed for Quang Tri when Khe Sanh received a rocket attack. They were placed at the end of the second 60 sortie flight when they finally arrived at the PZ.

The recovery of downed aircraft crews was controlled by the CO, 101st Avn Bn from his C&C aircraft. Four recovery aircraft were assigned sectors of the flight route; and one standby recovery aircraft was stationed at Khe Sanh. As aircraft were forced down, the closest of the four recovery aircraft would proceed to the location for the pickup. The C&C and the recovery aircraft were to monitor the flights' primary frequencies for notification of the downed aircraft.

The ADC (O), 101st Abn Div (Ambl) was the senior commander in the air over the LZ observing the assault. As senior commander, he could make a "go" "no go" decision. Having such a commander available during the assault relieves the AMC and the cavalry commander of the burden of making that decision. This allowed each of them to concentrate on his particular responsibilities. This third person (the senior commander) was also in a better position to make an objective decision since he was relatively detached from any one phase of the operation and could evaluate the situation from all aspects.

3. RECONNAISSANCE

A and C Troops, 2d Squadron, 17th Cavalry received the mission of visual reconnaissance and selection of an LZ in direct support of an airmobile assault of LZ HOPE. Each troop's reconnaissance teams consisted of two AH-1G attack helicopters and one UH-1H, command and control helicopter for coordinating the reconnaissance effort. The troop commanders elected once again not to use the OH-6A light observation helicopter because of the high density of antiaircraft activity known to be in the area. The troop commanders relieved their reconnaissance teams on station to provide continuous support. A Troop recommended to the Air Mission Commander that the insertion go into the vicinity of XD 3437. The LZ was large enough to contain three ship and was cleared enough for the aircraft to touch down. Enemy activity

appeared to be three days old and A Troop had not received enemy fire during their visual reconnaissance; however, C Troop had received 12.7mm fire on the high ground to the north. A Troop's visual reconnaissance revealed a large supply depot and motor pool to the east in the vicinity of XD 3546. A Troop recommended an approach route from the east down the escarpment to LZ SOPHIA then north into the LZ, with departure back out the same way. A smoke screen was recommended to the west in the vicinity of XD 3447. The Air Mission Commander concurred with A Troop's recommendation. A Troop directed airstrikes in preparing the LZ and routes. The smoke screen coordinates were marked with smoke and passed to the FAC on station. A Troop directed the FAC to shift the airstrikes back on the high ground to the north of the LZ. C Troop directed the airstrikes then screened to the north and west. A Troop received control of three sections of ARA to coordinate and provide adequate security during the insertion. Three sections of ARA were placed in a CAP over the LZ. A Troop provided security to the south below the UH-1H aircraft on the approach route. An aircraft in the first lift received fire on the approach route just north of the escarpment. A Troop located the target and suppressed the fire. Two sections of ARA were employed and no fire was received during the rest of the insertion.

4. STAGING

The aircraft assigned to conduct the assault on LZ HOPE on 6 March 1971 were staged at three different locations. Of the 175 aircraft involved (not including the Cav and ARA) all but 20 were staged at two locations at the Khe Sanh combat base: the Lagger Pad and the airstrip. The remaining 20 aircraft were staged at PZ OSCAR (XD 856387).

The aircraft reported to the assigned staging area in company flights at staggered intervals between 0800 and 0915 hours, 6 March 1971. Although assembling this many aircraft invites enemy bombardment, it was felt that the importance of a complete briefing outweighed the risk. The scheduled start time of 1130 hours was advanced fifteen minutes when Khe Sanh started receiving indirect enemy fire at 1115 hours. All aircraft departed the Khe Sanh area in an orderly manner without sustaining damage from incoming rounds. Individual flights maintained unit integrity as some proceeded directly to the PZ and others refueled at Vandergrift or orbited in the Khe Sanh area until directed to the PZ by the PZ C&C element.

5. PICKUP ZONE

The PZ used for the assault on LZ HOPE was OSCAR pad (XD 856387). The aircraft of the first flight arrived at the PZ at 1130 hours. A C&C aircraft from the 223d CAB was used to control the PZ. The first 20 aircraft were loaded from their parked positions. Subsequent pickups were accomplished by simultaneously loading two aircraft in the PZ.

The first 40 sorties were picked up without incident. The last 20 sorties of the first flight were not in position to make the pickup in proper sequence. The second flight of 60 aircraft were immediately cycled through the PZ. The last 20 aircraft from the first flight were then brought into the PZ. The pickup was completed at 1230 hours.

Control of the loading of troops in the PZ was supervised by both ARVN and US Pathfinders. The advisor staff of the 2d Regt acted as liaison between the US Pathfinders, the ARVN Pathfinders, and the ARVN battalions.

6. FIRE SUPPORT

The planned preparation of LZ HOPE consisted entirely of Commando Vaults, ARC LIGHTS, and tactical airstrikes. ARVN artillery consisting of eight 105mm howitzers located at LZ SOPHIA was not planned for the preparation, although they were within range. LZ HOPE was not within range of 175mm artillery from the 108th Artillery Group located along the Laos-Vietnam border.

On 5 March, seven ARC LIGHTS were employed north of the Xe Pon River, supporting the planned assault into HOPE on 6 March. These ARC LIGHTS were employed at grids XD 315442, XD 374437, XD 354509, XD 345450, XD 315470, and XD 325470. Six ARC LIGHTS were employed south of the Xe Pon River near LZ SOPHIA, supporting the planned flight route into the HOPE area in addition to supporting LZ SOPHIA. On 6 March from 0135 to 0850 hours, five ARC LIGHTS were employed in the vicinity of LZ HOPE, and along the flight route leading from LZ SOPHIA to LZ HOPE. These ARC LIGHTS were employed at grids XD 345400, and XD 345440. Two Commando Vaults were employed at 0817 hours and 0910 hours, 6 March at grids XD 342482 and XD 344461 respectively.

From 0800 to 1136 hours 6 March, 16 missions consisting of 34 aircraft were employed in preparation of the LZ with the Cav identifying specific targets to the FAC. Six of the 16 missions were Daisy Cutters employed between 0800 and 0920 hours. The remaining ten missions employ d ordnance consisting of 500-pound bombs, 1000-pound bombs, 200-pound bombs, Cluster Bomb Units (CBU), napalm, and 20mm fire in the vicinity of the LZ. During the preparation of LZ HOPE, LZ VICTORY was prepared with five sets of tactical air. LZ VICTORY served as a possible secondary LZ, and also deceived the enemy as to the actual location of the insertion.

At the critical time of insertion (1206), smoke had not been employed on the LZ by the FAC as planned. The smoke later was employed at 1216 hours and was effective. From 1216 to 1450 hours 20 additional missions consisting of 45 aircraft were employed on enemy positions in the vicinity of the LZ.

For the combat assault into LZ HOPE, ARA provided two sections on station for continuous CAP of the LZ area. As on the insertion into SOPHIA, the distance of the LZ from the nearest refuel and rearm area required the use of four sections to sustain the continuous CAP. ARA flew a total of 14 hours covering the insertion.

The only request for ARA fires during the insertion was by the Cav team on station. Some enemy trucks had been detected in the vicinity of the landing zone and the ARA expended on these targets just prior to receiving end of mission.

7. PICKUP ZONE TO LANDING ZONE

The flight route to LZ HOPE was from the PZ, to HOTEL, to DELTA, BROWN, LOLO, LIZ, to SOPHIA, which was the RP. This flight route enabled the flight to overfly the friendly firebases which could be used as secure precautionary and forced landing zones. The flight was to depart the RP on a 350 degree heading in a steep descent from the enroute altitude of 5500 feet. The enroute altitude was changed for the second 60 sorties, the 158th Avn Bn flight. This flight maintained 5500 feet until passing LOLO at which time they initiated a descent to reach an altitude of 3500 feet at SOPHIA. The descent from

5500 feet at SOPHIA was felt to be unnecessarily steep.

Two aircraft were hit by enemy fire while enroute to the LZ. Both aircraft were hit as they descended over the escarpment between the RP and the LZ. It was impossible to put suppressive fires on the enemy positions because of the close proximity of friendly troops on the valley floor. For this reason the flight route was swung further to the west both to avoid known enemy positions and to allow for suppressive fires on the escarpment if needed.

Enroute gun cover was provided by armed escort aircraft as they flew the flight route to and from the rearm/refuel which was located at Khe Sanh.

8. ASSAULT

The assault on LZ HOPE (XD 339466) began when the first lift aircraft touched down at 1200 hours, 6 March 1971 with elements of the 3d Bn, 2d Regt, 1st ARVN Inf Div. The 2d Bn, 2d Regt, 1st ARVN Inf Div was inserted into the LZ upon completion of the insertion of the 3d Bn, 2d Regt.

Fire support at the LZ was provided by helicopter gunships and TAC air. Although tube artillery was located within range (LZ LOLO), it was not employed. Gunships were employed as follows: ARA provided a CAP over the LZ; an air cav troop screened the area north of the LZ; another air cav troop screened to the west and south of the LZ; UH-1C gunships provided coverage of the valley floor south of the LZ; and escort gunships (AH-1G) provided coverage for lift aircraft in the final approach path. TAC air provided a smoke screen north of the LZ and placed airstrikes on targets which were identified by the Cav. The only major problem with the fire support provided for the assault on LZ HOPE was that the smoke screen was late. Smoke was not dropped until ten minutes after the first lift aircraft touched down in the LZ.

The aircraft departed the LZ on a heading of 200 degrees and climbed to a return altitude of 6500 feet. This combat assault was completed at 1343 hours.

C. (C) SUBSEQUENT ACTIONS

1. AIRCRAFT DAMAGE

The assault on LZ HOPE used a total of 185 aircraft. Only ten aircraft were hit, one of which was forced to land at the LZ and was later destroyed. The other nine aircraft flew to secure locations in South Vietnam. Of the ten aircraft hit, eight were determined to be non-flyable. Nine of the aircraft were hit between 3000 feet and 80 knots approaching the LZ and 500 feet and 70 knots taking off from the LZ. One UH-1C gunship was hit at 3000 feet and 80 knots while attacking a target. Nine aircraft were hit by small arms; the one aircraft that was forced to land was hit by an unknown type of fire.

The 185 aircraft (134 UH-1H, 12 UH-1C, 39 AH-1G) flew a total of 373 hours, and a total of 686 sorties.

2. CASUALTIES

Only three minor personnel injuries were incurred during the assault.

3. DOWNED AIRCRAFT RECOVERY

The UH-1H which was forced to land on the LZ was not recovered. This aircraft was destroyed as not recoverable because of the fast-moving character of the tactical situation.

SECTION IX
AIRMOBILE STUDY GROUP
COMBAT ASSAULT LZ HOPE
6 MARCH 1971

13 MARCH 19

GEN BERRY:

I would like to summarize some comments made by Gen Lam prior to the combat assault on LZ HOPE. At his 1730 briefing on the 5th of March, Gen Lam stated "This is the principal object of the Republic of South Vietnam; that is, the landing of Vietnamese troops in the Tchepone area". He reaffirmed that the landing would be made a matter of highest priority, no matter what size unit would be placed on the ground. He made reference to the success of the combat assaults which had preceded this attempt. The atmosphere was not as tense as it was on the 2nd and 3rd of March prior to the landing at LZ LOLO, LZ LIZ on the 4th and SOPHIA on the 5th. Two bns were to land in the LZ HOPE area. The 3rd battalion would be available on call. Gen Lam placed emphasis on reconnaissance by the air cavalry, use of the United States Air Force, and deception of the enemy in regard to the location of the actual LZ. We discussed with Gen Lam some of the detail of the landing itself. With 120 lift ships being used, our aviation would not be able to conduct any other operations in the LAMSON 719 area until the completion of the combat assault on LZ HOPE. At Gen Lam's 0815 briefing on the morning of 6 March, the day of the combat assault on LZ HOPE, final details were discussed. I pointed out to Gen Lam that time and fuel factors involved were important. We could expect that the troop lift would have about 30 minutes in the objective area. I made this point to emphasize to Gen Lam that once the decision was made to conduct the combat assault, we had to go forward or lose the time taken to return to a refueling area. We presented to Gen Lam the full details of the combat assault, discussing the employment of FAC's, Air Cav, and preparatory fire. The general atmosphere at the briefing was one of confidence and determination that the operation would be a success. There would be extreme heavy enemy antiaircraft fire and this would be a difficult combat assault, but I believed it would succeed.

MAJ KLOSE:

The assault of a 57 kilometer one-way distance of two battalions from KILO to HOPE was to be conducted maintaining the tactical integrity of the two battalions with 120 lift ships. The battalions were to go in consecutively, one behind the other, with minimum delay.

COL DAVIS:

Because of the distance and heavy antiaircraft concentrations in the area, one planning factor was the assemblage of enough aircraft to move both battalions in simultaneous lifts. The breakdown of C&C assignments of aircraft is as follows: CO of the 223d was given the responsibility of being the AMC for the insertion of the 3d and 2nd battalions. In addition, he was given the responsibility of coordination of recon and airstrikes in the landing area. The second flight of 60 aircraft was to put in the 2nd Battalion under the CO of the 158th Battalion. The critical factor was that the 2nd Battalion was to start on order, not at a predesignated time. The start time was to be determined by the AMC after the results of the Cav recon in the area had been evaluated. The 2nd Battalion was to launch on order. The point we are getting at is that until we ascertained the situation in the objective area, the second flight of 60 aircraft was not to be launched. We could not have that many aircraft orbiting, waiting for the decision to insert. If this would have occurred, we would have had to cycle 175 aircraft back to POL, which would have caused a two hour delay. The 223d had two C&C, 63 lift, three of which were to be employed as chase aircraft, and 18 gunships. The 158th Bn had two C&C, 62 lift, two of which were to be chase aircraft, and 14 gunships. The total number of ships employed was 175, not including the Cav and ARA. One additional C & C factor: the CO of the 101st was given the responsibility of recovering downed aircraft and crews. He was to monitor the AMC's control net, and control the recovery of downed aircraft and crews. The procedure had been employed in the past, but because of the size of the mission, it was placed under the control of a battalion commander. The aircraft were to be assembled at Khe Sanh except for the 2 lift companies of the 223d who would be assembled at PZ OSCAR. An important consideration here is that aircraft were massed at a forward staging area, a high risk operation. This was recognized at the time it was done. However, several of the companies (the 282d and the 116th) had been brought into the operation the day before. The actual briefing and coordination

required prior to the launching of an airmobile assault of this scale requires a detailed briefing of all air crews. The decision to assemble the aircraft at Khe Sanh prior to the combat assault was dictated by the need of every aircraft commander and flight lead to receive a detailed briefing. Ideally, in a lift of this magnitude, the aircraft would arrive at the PZ at a prearranged time from widely separated lagger areas. For a lift of this size, detailed briefings should be conducted at least 24 hours before. This is not a rigid time factor; but, in an operation of this size with the number of units not familiar with the area and having only a limited knowledge of the area of operation, the briefing then becomes a very important factor.

MAJ CLARK:

The Cav started reconnaissance of the area about five days prior to 6 March. Our mission at the time was just general recon to try to locate and destroy antiaircraft weapons and pick out possible LZ areas that would make good LZ's for future operations. When we got into the Tchepone area, the antiaircraft was very heavy. We received 12.7, 14.5, and 37mm antiaircraft fire. You couldn't get into the area wihout getting shot at from altitudes of 2000-7000 feet. We started beating down the antiaircraft fire by using gunships, ARA, and airstrikes on every target we could locate, and systematically hitting targets of opportunity where antiaircraft could be located. There was always at least one troop in the Tchepone area. Ultimately on the 6th, we put three troops working in the area. On 6 March, 2 troops were on station at 0830. A Troop worked Route 9 to about two kilometers north of Route 9 and C Troop worked the high ground about 5 kilometers north. Both had the mission of selecting LZ's and employing airstrikes and marking antiaircraft weapons. In the northern part of the AO, we found 12.7's. This was the only weapon we could pick up at the time. C Troop employed airstrikes on this weapon. In the southern part near Route 9 we took no fire at all. We had people working the low ground looking for secondary LZ's which appeared to be made by Commando Vaults or Daisy Cutters. We conducted a VR completely around the area in a 3 kilometer radius and took no fire. We located a motor complex with many 55-gallon drums, POL, 7 vehicles, tires, and several large cache pits. This was passed to the AMC. Airstrikes were continually employed in the north and then in the south at that time since we did not take any fire.

We started VR south of Route 9, selected approach and departure routes into the secondary LZ in case that one would be used. My recommendation to the AMC was that the southern LZ be used for the lift. Although we had located 7 antiaircraft weapons in the northern LZ and destroyed them, it was my estimate that because it was on the high ground, we would be exposed to more antiaircraft fire.

GEN BERRY:

Going back to the initial pattern given by Gen Lam, he wanted the LZ to be on the high ground. On the morning of 6 March I had reservations about employing the high ground LZ. I hoped the AMC and Ground Commander would go along with the recommendation of the Cav commander and use the low ground LZ.

MAJ CLARK:

I think one thing that convinced him to use the low ground was the POL area and cache sites that were discovered. Also, we had not received any ground fire in that area. We also picked up five new 5-ton trucks in storage areas south of Route 9. The AMC and Ground Commander did concur with the Cav Commander and selected the low ground. Based on that selection, we started employing airstrikes completely around the LZ, to the north and south, to prepare departure routes. At that time I also recommended to the AMC that we have a smoke screen placed north of the LZ which would screen the high ground if the 37mm and 12.7mm were still present. This would block the approach routes into the LZ.

MAJ KLOSE:

We had three possible LZ's on the itinerary before we got out there. The moment the three were initially selected, Gen Lam wanted the high ground as did Col Chung, the regimental commander. Between the high ground and the northernmost LZ, there was a fresh ARC LIGHT, which Chung wanted as a fallback position. At about this time, at the LZ we did go into, the Cav reported the supply complex to the east and we put an airstrike on it. It was my estimation that this supply area find was what made the Ground Commander follow the AMC's recommendation and go into that area as an LZ.

GEN BERRY:

Gen Lam's stated preference on the 5th was for the high ground LZ. On 5 March it was reported that tanks were in the Tchepone area. That factor led Gen Lam to shy away from the low ground LZ. I believe he visualized the low ground LZ as being quite open to tank operations. The fact is that the low ground was quite heavily vegetated and I believe it would have considerably interfered with tank operations.

COL DAVIS:

Again, the LZ selected was a compromise which was defendable from the armor threat. The LZ we actually went into was not the VICTORY area we discussed, but rather an area on the ground which was definitely low ground near the river.

GEN BERRY:

The actual landing zone was on the lower southern slopes of the high ground we have been discussing. It was not the lowest ground in the area.

COL DAVIS:

I would like to switch now to after the 2000 hour briefing which we had here on the night of the 5th. We turned the planning session over to the 223d Bn Commander.

MAJ KLOSE:

All flight leads were here. We covered radio frequencies, routes of flight, the recommended altitudes, and the concept and employment of the guns. At my briefing, everyone got that. The 158th then continued with only their commanders but they were going to follow the identical flight route that we would follow.

COL DAVIS:

It was a normal preoperational briefing.

MAJ KLOSE:

It showed up that day. We had new people in the AO that came up specifically to support this operation. It was essential that each aircraft commander understand what was going on. No one should ever arrive accidentally in any part of the area of operations.

COL DAVIS:

All the company commanders I believe were here that night. I will testify for the six companies of the 101st Group. These flights would be led by the company commander, and I believe it was the same for the 223d and the 14th Bn. We did in fact have the company commanders leading. It goes without saying that every time you do something big, it is not the time for the company commander to be in the rear.

MAJ KLOSE:

The flight altitude was 5500. The route of flight was KILO to HOTEL direct to DELTA 1, BROWN, LOLO, LIZ, SOPHIA, departing SOPHIA on a heading of 350 with a rapid descent. After the first flight left DELTA, we recommended 3500 feet at SOPHIA, start letdown at LOLO and make the turn at 3500 feet in a relatively short distance, approaching auto-rotation velocity. The return route was the same way. You were climbing out of SOPHIA all the way to 5500 feet. For an operation of this size, we really haven't said much about the organization of the PZ. There were two control elements in the PZ. The internal control was provided by the 2nd Battalion and their pathfinders. We had the HEADHUNTER pathfinders in combination with the combined 101st and 223d pathfinder teams. They organized the first 20 loads. These troops then moved to their parked aircraft. The 21 through 120 sorties came from two positions on the top of the hill at OSCAR. They loaded from the north and the south, so they could handle two aircraft in the PZ at the same time. The third control element was the advisor staff of the 2d Regiment. They made the liaison between the American pathfinders, the ARVN pathfinders, and the ARVN battalions. It worked very well. Also, we had a C&C ship over the PZ. It worked fine through the first 40 loads. We had two companies which did not get to the PZ. They headed for Quang Tri when Khe Sanh received the rocket attack and they became the 101-120 sorties.

MAJ CLARK:

I think one other thing that may have helped was that I sent one Cav troop north of the LZ on the high ground. I put the second Cav troop south of the LZ underneath the approach routes. As the slicks were descending, I had gunships from the Cav VR around the approach routes. Any targets we could pick up, we would hit with ARA or other guns. I think this helped suppress any fire that may have been taken along the appr ach routes.

MAJ KLOSE:

If we were to do this again, I would recommend the pooling of guns instead of having them split up among battalions. We could have handed them off to the Cav troops in the objective area. There should be one aircraft who does nothing but keep up with all guns. He should know who is rearming and refueling, who is enroute, and who is replacing whom. This way we could have continuous coverage. We planned initially for 45 minutes on station for Cobras (AH-1G's) and 40 minutes for C arlie guns (UH-1C's). If we would have pooled our assets and planned for about 30 minutes for Cobras and 20 minutes for Charlie guns, we would have had enough guns within the objective area to cover both battalions. The Charlie guns had a corridor from SOPHIA to the LZ. There was a Cobra CAP around the LZ under the command of the Cav troop. In addition, the Charlie guns were under the Cav troop. They had to keep changing frequencies. We solved this problem because there were only two Victor (VHF) frequencies available for Charlie guns. Charlie guns now came up on the FM frequency of the Cav. It is an additional burden on the FM, but you can talk to everybody you want to without having to change frequencies. It is always a problem because of the limited communications of the Charlie guns.

MAJ MILLS:

The two ARA guns in the CAP worked with the Cav troop on the south, monitoring DRAGON's UHF. We were on VHF with the Cav and we switched several times on the FM from DRAGON to the troops on the ground.

MAJ KLOSE:

From a C&C aspect, we had four designated C&C's. The regimental

commander with the CO of the 223d was the primary C&C. Because of the distance and the limited time on station, an alternate C&C for the 223d with a member of the regimental staff was used for their lift. The CO of the 158th as the AMC for the second lift also had an alternate C&C aircraft. In addition we had the C&C or the AMC for the downed aircraft recovery, and a C&C to control operations at the PZ.

MAJ CLARK:

With each Cav troop we had two C&C's. One remained on station so we always had a C&C there. As it worked out, the one in the north took charge of putting airstrikes north of the LZ and the one in the south was calling in ARA. They had about one hour on station. We would leave a little early so that we had no lost time out there. The squadron commander was overhead so he could take control any time.

MAJ KLOSE:

It would be nice to have an eight track tape recorder in the C&C aircraft. It could pick up the FM, VHF, and intercom traffic on all tracks. It should be cartridge type with 2 hour 30 minute capability, which would coincide with refueling capabilities. You could change the cassettes when you refueled. Then when we came back to reconstruct, we have everything that occurred recorded. The tapes can be erased if nothing of a critical nature happened. But if it did, we would know exactly who talked to whom and when. We would have it recorded in all C&C aircraft. It would be a small addition when we finally standardize the C&C console to have one of these cassettes in it. We should have one in the Cav C&C's, and perhaps in all recon and surveillance aircraft as well as all airmobile C&C's.

COL DAVIS:

It would aid in debriefing all recon and surveillance pilots also. It would aid anybody who wanted to reconstruct what happened.

GEN BERRY:

I think it is important to record in any airmobile operation.

This is particularly true of a combined operation such as LAMSON 719. In the air over the LZ there must be a senior commander who is empowered with the "go" or "no-go" decision. This commander should be someone separate from the AMC and the direct Ground Commander and the Cav commander. These commanders are involved in the operation and the details of what is happening. They probably lack the detachment and the relative objectivity to see all aspects of the operation and hence are not in the best position to make the "go" or "no-go" decision.

MAJ KLOSE:

The smoke was put in at about the right altitude and was very effective. There were two smoke sorties east to west just north of the LZ and they were put in at the right altitude.

GEN BERRY:

The smoke was late. It was absent at the critical touchdown time. This was a result of two factors. The first was the rocket attack on the staging area at Khe Sanh 15 minutes prior to start time. Because of this, the troop lift aircraft were launched earlier than had been planned. This led perhaps to the AMC giving too short notice to the FAC that the ships were about to touch down. Secondly, according to the FAC, the fighters were engaged in refueling. This led to a delay in beginning their smoke run. Whatever the case, once again for the second day in a row, at the most critical time of the combat assault, that is the actual beginning of the touchdown at the LZ, there was not a smoke screen laid by Air Force aircraft. The first touchdown was at 1206 hours and the smoke actually began at 1216 hours, ten minutes after the touchdown. Once the smoke began, it was quite effective, but again those ten minutes of combat assault, minus the smoke screen, could have been very critical to this operation.

MAJ KLOSE:

If combat assaults are going to get the priority of air in the future, I think that it would be worthwhile that the Air Force know there is going to be a combat assault so they can preposition a tanker for whatever fuel they need. I cannot estimate the number of times we couldn't put in an airstrike because their play time had run out. We are getting less than the optimum benefit from the airstrikes because we are in a position where we have to use them because of this time factor.

GEN BERRY:

I do think that we ourselves are responsible for some of the lack of smoothness in our support from the Air Force. I think we assume too many things. We have to brief Air Force representatives and give them as much advance warning as possible. I think we assume a strike will be on station when we want it. We should provide the Air Force with as much information as possible and as soon as possible.

COL DAVIS:

Since the operation has started, we have acquired a Tactical Air Control Party for the Cav. In addition to this, I feel in an operation of this scope, even if it was just the 101st, consideration should be given to having an ALO with the Aviation Group.

GEN BERRY:

In November or early December of 1970, the 101st Abn Div (Ambl) requested that a TACP be assigned to the 2/17 Cav. The request was made then because of the independent operations of the 2/17 in the Division recon role in the A Shau Valley and the Khe Sanh area. XXIV Corps recommended approval. At the beginning of planning in January for LAMSON 719, the 101st recommended on several occasions, through XXIV Corps, that a full TACP be assigned to advance headquarters at Khe Sanh. The Air Force approved this but stated a shortage of radio equipment and personnel. I was unable to understand why the Air Force was unable to supply us with a TACP for an operation of this scale and importance. One of the abiding lessons of this operation is that we have to recognize the intimate relationship of the Army and Air Force in the airmobile operation. However, the Army aviation assets and the ground assets did not have the direct support of the TACP. We are not realizing the maximum effectiveness of tactical air in this airmobile operation.

LT CLARK, ASST G-2, 101ST ABN DIV (AMBL):

When the 2d Regiment got on the ground, they found 453 NVA bodies, two 37mm antiaircraft guns, and fifteen 12.7mm machineguns. This shows that the extensive preps by ARC LIGHTS, airstrikes, and

gunships were effective. The fact that the enemy was deceived as to the location of the LZ and was destroyed by the preparation is undoubtedly one of the reasons why the operation succeeded. There were at least three battalions of enemy in the area. If they had not been destroyed and would have been concentrated on the LZ, we would not have succeeded. They would have been able to knock the aircraft out of the air quite easily. It took a tremendous number of airstrikes to get a successful operation on the ground. Unless I am deceived, elements of the 2nd Regiment went through the area very quickly and the bomb damage assessment was nowhere near complete. It is possible that a great number of these bodies and items of equipment were the result of airstrikes and Cav action from airstrikes and as much as a week prior to the actual landing. However, it appears that most of it was a result of action 24 hours prior to the landing. The actual size of the enemy force in the area in my estimation was at least two battalions, both of which had antiaircraft weapons.

COL DAVIS:

Let's turn to crew and aircraft recovery.

LTC PEACHEY: CO, 158th AHB

I briefed my pilots to have 30 seconds between aircraft. If a helicopter went down, the one right behind him would circle his location. The others would continue on until we could get the recovery aircraft to identify the downed helicopter and its location. I really felt that this was the only way we were going to find downed aircraft in that 20-foot grass. On the route out, I elected to keep all of my people over the high ground to the south. My people were to go in at 5500 feet to SOPHIA, turn to a heading of 340 directly into the LZ and back out on the same route climbing to 6500 feet. We came back 1000 higher than we went in. Other than that, my briefing was identical to the one given by the 223d. My flight leaders and company commanders controlled their flights on VHF. Everyone turned to UHF, but only the flight leads, guns, and myself used the UHF unless there was an emergency. I used FM to secure transmissions between the flight leads. I briefed thoroughly on everything I knew about the area as I always have and always will. I think you have to tell it like it is. Tell them what you are going to do and then you do it. You have to train the juniors. They

[redacted]

have to know what goes into one of these combat assaults. So if you brief thoroughly on every step, you will have the advantage of enabling the chain of command to go on, even if a key ship is knocked down.

I think that the thing I disagree with on HOPE was when I took my flights in there. We drew fire and I could not get immediate response from the guns. I think the guns have got to escort in, and to put the guns in CAP loses their effectiveness. We got three or four ARVN wounded coming over the river. We finally got some fire in there, but I would recommend in the future that each flight commander control his own guns. Have them shoot along the flight path. We could not return fire along the south of the river because there were friendlies down there. It is better to have a free fire zone than to plan flight routes over friendly locations. Every time I have flown over friendly troops, going into their LZ, I have taken fire. When I could get into a free fire zone and suppress with my escort guns and door gunners, my losses were not as great.

MAJ KLOSE:

There is just one problem. In areas where you could suppress, there is a lot of antiaircraft fire, west of ALUOI, all the way down that valley.

LTC PEACHEY:

All the way to SOPHIA is a good flight route. We took no fire, we were at altitude. I am speaking of when you turn final into the LZ, and I am not criticizing the operation. We have learned, and will continue to learn, that flying over friendly locations is inviting disaster. It is a much better idea, when you have to let down to a low altitude from approach altitude, to be over a free fire zone, which you can suppress with escort guns and your guns. We should try to get a route in which our final approach, at least a kilometer, is over an area we can suppress.

LTC KIRKLIGHTER:

On our final approach, we used a buttonhook. We took all our fire on final approach so we had to eliminate it. We used 170-270

degree buttonhooks. We used a side approach so they don't stack up on final. We learned that early and eliminated it. There should be no final approach if possible.

COL DAVIS:

Most of the things which we have hit on are variances. There is no radical change of procedure; only a change of technique. A long shallow approach in this environment is not the answer. As to whether the friendlies afford the best protection or not in this particular case, the answer is no. To others it has been yes. I think you just need a rapid assessment of the situation and then need to plan accordingly.

MAJ CLARK:

In this case, we did not have a choice to go west. If we went west, we would have taken 37mm and 23mm fire and got shot down.

GEN BERRY:

I don't understand how you eliminate a final approach by using a buttonhook.

MAJ KLOSE:

We use a 180 degree side approach, just like a 180 degree auto-rotation. We don't go into auto-rotation, but it approaches auto-rotation velocity. It is the tightest approach you can make.

LTC KIRKLIGHTER:

On the escarpment, we had been getting to the west, but the winds were high and from the east. Not wishing to go west, we went in on a long final east, trying to make a fast U-turn. A lot depends on what the Cav tells us.

LTC PEACHEY:

They can tell you exactly what your approach should be. They tell us whether it should be low level for the last kilometer or if it should

be a long descending approach. It will vary from day to day. The Cav is the only unit that can give you that information unless you go in with your first 18 slicks and find out for yourself.

GEN BERRY:

It appears we are moving the Cav out of its old role of far out recon. The question is, have any of you seen the Cav used in this role before in such an important and intimate association with the combat assault?

LTC PEACHEY:

We have always used the Cav to recon the area. Take for instance last summer when we went into the LZ's around EAGLE'S NEST. The Cav went out and located the weapons for us. In the past, in more or less static posture, we had difficulties in getting the Cav. It was always employed somewhere else. They can go out and find the enemy. The Cav's normal role is one of recon and security.

COL DAVIS:

The only thing that has been added to it is the fire support and coordination aspect. I don't think that it is very far removed from its role. Having the gunships CAP the LZ probably is a departure.

LTC KIRKLIGHTER:

Once we commit ourselves to go into the LZ, we have TAC air, but it is no longer useable in the LZ. The Cav is given a screening role, and it doesn't do any good for them to just fly back and forth unless they have weapons to employ. I don't think this is a departure from long range recon. Actually any airmobile operation is long range. At one time or another, friendlies get close and it ceases to be long range.

LTC PEACHEY:

Their (the Cav's) recon, security and screening role and employment of supporting fires is part of their role. We are assigned responsibility for initial recon of selection of LZ's, approach and

departure routes, and targets for TAC air. When the assault is initiated, the Cav moves out and goes into recon, security and screening roles. Control of all escorting gunships and the flights is also the responsibility of the Cav.

COL DAVIS:

The area in which the Cav is working versus the area of the escort gunships, is designated by the AMC in his allocation of air space. In final analysis, the AMC is responsible for everything that goes on in the area.

GEN BERRY:

I think the classic term "recon and security role" covers it all. The Cav recons and then assists in securing the LZ and surrounding area.

MAJ KLOSE:

The operation was the best that we have been involved in of all the airmobile assaults. The Cav was used extremely well in the mission that it was designed for. The final ship was in at 1343.

SECTION X
THE EXTRACTION OF
4TH BATTALION, 1ST REGIMENT, 1ST ARVN INFANTRY DIVISION
18 MARCH 1971

The extraction of the 4th Bn, 1st Regt, 1st Inf Div was accomplished on 18 March 1971, along with other elements of the 1st Regt. Plans to extract this Bn had been in the making for several days. The unit was scheduled to withdraw from an area south of FB LOLO where it was conducting search operations for enemy cache sites and interdicting Route 914. This withdrawal was advanced because it became impossible to resupply the Bn as a result of intense antiaircraft fire and indirect fire directed against the ground troops when resupply aircraft approached the friendly positions. The battalion commander requested that the attempts to resupply be aborted. The casualties and potential casualties from enemy mortar fire were more detrimental to the unit than not being resupplied.

The 223d CAB was given the mission to extract the 4th Bn, 1st Regt from a field location on 15 March. The battalion had been in contact and moving north toward the escarpment for several days. Once the battalion reached a suitable pickup site the aircraft would begin the extraction. The planned pickup point was to be on the top of the escarpment on 15 March. Radio contact was sporadic due to the unit's constant movement and weak radio batteries as a result of not being resupplied. The battalion's location was unknown on 15 and 16 March; therefore the extraction was not attempted or accomplished. The 1st Regt headquarters believed the 4th Battalion was moving east on the high ground toward LZ BROWN. Since the battalion's location was not known as late as 17 March the Deputy Commander, 1st Regt, 1st ARVN Inf Div personally attempted to establish contact. The Deputy Commander went to the area where the battalion was thought to be located with the CO, 223d CAB (the AMC for the extraction). The 4th Battalion was found high on the escarpment (XD 448380) late on the afternoon of 17 March. Both the Deputy Regimental Commander and the 4th Battalion Commander wanted to extract the battalion at that time. A Troop, 2d Squadron, 17th Cavalry conducted a low visual reconnaissance of the area and reported that the unit was not near any suitable pickup zone. This coupled with the impending darkness and heavy antiaircraft fire in the area caused the extraction to be postponed until the following day.

The 1st Regimental Commander was informed of the situation and conferred with the 4th Battalion Commander. It was decided that the battalion would move that night to the northeast to find a suitable PZ and would attempt to break contact with the NVA element which was pursuing it. One company decided to move by itself and did so to the north. The AMC was informed of this decision and returned his flight to its home station. The planning of the flight route, approach and departure routes, etc, could not be accomplished the evening of 17 March since the PZ had not yet been established. The 4th Battalion requested gunships to orbit overhead while the battalion moved northeast. The battalion was surrounded and in contact at this time.

At 2330 hours 17 March the AMC was notified to put three lift aircraft and two gunships on standby for an emergency resupply of the 4th Battalion. At 0015 hours 18 March the aircraft departed Dong Ha Combat Base and arrived at KILO pad at 0100 hours for a briefing by the ARVN and US advisors. The exact location of the 4th Bn was unknown at this time. At 0200 hours two UH-1H aircraft and two UH-1C aircraft departed KILO pad with sling loads of ammunition, food and batteries. This third lift aircraft was not needed. The aircraft established contact with the FAC who was controlling the USAF gunships (C-130's) that were providing fire support for the battalion. The FAC instructed the aircraft to orbit over HOTEL until visual contact could be re-established with the 4th battalion. The aircraft were held in orbit so long that it became necessary to return to Khe Sanh to refuel. The aircraft dropped off the sling loads at KILO. By this time low ceilings and ground fog were present in the border area. The lead UH-1H went IFR shortly after departing KILO and had to make an instrument approach at Khe Sanh. The second UH-1H stayed close to the road and was able to climb and orbit at HOTEL. The helicopter gunships had to return to KILO because of the poor visibility. The resupply was consequently called off in the absence of helicopter gunships needed to escort the UH-1H aircraft into the LZ.

Other elements of the 1st Regiment extracted on 18 March included elements of the following units: the 1st Regt CP, an engineer company, the regt recon company, artillery, the 3d Inf Bn, the 1st Inf Bn, and the 2d Inf Bn. These elements had been located on and around FB LOLO

until the 1st ARV Inf Div Commander decided to destroy the howitzers and withdraw from the firebase. This decision was made in light of the fact that resupply was impossible because of the indirect fire attacks of the FB whenever resupply helicopters approached. The last supply mission into the FB was flown on 12 March, at which time the fire base was surrounded by NVA units. The fire base was subsequently completely evacuated, the occupants moving out to the north. The priority for extractions on 18 March was first to pick up the 1st Regt CP and all collocated ARVN elements. After this was completed the 4th Battalion, 1st Regiment was to be picked up at a PZ. The locations of the PZ's for both of these extractions were not know until radio and visual contact were established the day of the extraction.

At 0830 hours the AMC picked up the Assistant Division Commander, 1st ARVN Inf Div, and proceeded to the area where the Regimental CP and other elements of the 1st Regiment were located (XD510380). The Assistant Division Commander told the AMC that the Regimental Commander would be picked up by the first aircraft and taken to DELTA 1. The AMC requested the ground elements to use smoke to mark their location; however smoke was not employed apparently because the ground units did not have any smoke capability. The CP was visually located by the 2d Squadron, 17th Cavalry team that was screening the area to the west of where the flight was orbiting. The actual location of the Regimental CP was at a good PZ at grid XD480381. The Cav team conducted a visual reconnaissance of the area around the PZ and drew only light fire. Therefore only minimum preparatory fires were placed along the recommended flight route and the area around the PZ. The extraction commenced at 1100 hours and moved the 1st Regimental CP and elements of an engineer company; Regt reconnaissance company artillery personnel; 3d Inf Bn, 1st Regt; 1st Inf Bn, 1st Regt; and 2d Inf Bn, 1st Regt, respectively, to LZ KILO. The extraction of 796 personnel, 88 of whom were WIA, was completed at 1240 hours using an ACL of seven passengers per UH-1H.

The flight received 12.7mm machine gun and small arms fire from the escarpment between the 47 and 49 north-south grid lines south of the PZ. However, no aircraft were destroyed or shot down. TAC air was employed on these targets along the escarpment in the LOLO area. The Air Force provided one set of fighter-bombers every 15 minutes.

employing sorties of hard bombs, CBU-46, a combination of high-drag bombs and napalm, and a smoke screen which was laid from east to west, north of the river. The Cav teams screened north and west of the Xe Pon River. The ARA provided coverage on the valley floor while escort gunships covered the lift aircraft on approach and departure. The Cav and ARA each had two teams of Cobras which rotated on station to provide continuous coverage. The escort gunships also rotated on station.

Upon completion of the extraction, the AMC returned to the 1st ARVN Inf Div headquarters to wait for the 4th Inf Bn to reach a PZ. The battalion had been moving during the morning extraction. At 1230 hours the AMC was told to pick up the 1st Regimental Commander at DELTA 1. The location of the 4th Battalion according to the Regimental Commander was grid XD453389. The unit had no smoke capability but did display a marking panel. After a few minutes of searching the ARA located the marking panal at grid XD453384, 500 meters south of the coordinates given to the AMC by the Regimental Commander. The battalion was completely surrounded and in heavy contact. The battalion commander and executive officer had been killed and a sergeant was in command. ARA was instructed to contact the sergeant and fire close supporting fires. He reported that all his men were within two hundred meters of the panel marker. ARA was the only fire support employed to the west of the friendly elements and only when called for by the ground units. Other fire support to the west was not possible because the location of the one company that moved north alone (instead of northeast with the battalion) was unknown. Approximately fifty sorties of TAC air were put in to the north, east and south. The Cav teams screened the areas where TAC air was not working. Much of this fire support was employed prior to the first UH-1H aircraft going into the PZ.

When the AMC and Cav felt the area was prepped sufficiently the first attempt was made. The first lift aircraft successfully made the pick-up while taking heavy fire. However, the AH-1G that was escorting the first aircraft took numerous hits and crashed and burned at XD453410. The second lift ship was shot down at XD460385 as it was departing the PZ. The aircraft was landed safely but was hit by an RPG while on the ground. The crew and ARVN passengers were picke

up after the area around the downed aircraft was prepped by ARA. The extraction was then discontinued until more fire support could be employed against the enemy targets. The aircraft refueled at Lang Con and remained there while the preparation continued.

The heaviest concentration of the enemy was north of a horseshoe bend in the river east of the 4th Battalion's location in the vicinity of XD 455385. The river generally separated the NVA from the ARVN. A FAC was on station with a set of fighters armed with CBU ordnance. The FAC marked the target area with two marks, XD 455392 and XD 457384. The FAC instructed the fighters to run the bombs north to south or south to north between the marks but not to drop any bombs west of the river. The first fighter's bombs exploded on a line between XD 455386 and XD 450379. Further preparatory fires were delivered by the Cav and ARA; ARA also continued close fire support of the ARVN's west flank without incident.

Approximately two hours elapsed between the time the extraction was broken off and the time of its resumption. Prior to the second attempt the Cav conducted a visual reconnaissance of the PZ and drew only sporadic fire. The Cav recommended an approach from east to west and recommended a departure that required a 180 degree pedal turn in the PZ and an exit over the approach path. The first few sorties into the PZ reported receiving light fire. The pilots of the remaining eight aircraft reported that they had picked up the last ARVN at the PZ. The extraction was completed at 1705 hours.

Initial contact with the sergeant in charge at the PZ revealed that 65 personnel were to be extracted. The number of personnel actually extracted was 82. Five aircraft were damaged by ground fire: three UH-1H's, one UH-1C and one AH-1G. Two AH-1G's and one UH-1H aircraft were destroyed. The two pilots in the destroyed AH-1G were classified as MIA as a result of the aircraft crashing and burning. One other US personnel was WIA. The one company that broke off from the 4th Battalion in an attempt to find its own PZ was not extracted with the battalion.

SECTION XI

AIRMOBILE STUDY GROUP

EXTRACTIONS

4 APRIL 1971

GEN BERRY:

After we have gone through some of the historical techniques of extractions, I want to discuss future techniques of extraction. Do we really want, in the future, to establish fire bases, and put artillery and heavy equipment on fire bases? In the future do we need to depend solely on aerial rocket artillery, and less on artillery that is set in circular positions and isolated fire bases, out in enemy territory? As we discovered in LAMSON 719 there always tends to be a hostile environment. We lost the artillery, or we often did. We increased the damage and losses to our helicopters and our troops. I very often find it at best difficult, at worst impossible, to extract not only heavy equipment and artillery but also the soldiers from the fire bases and perimeters. Perhaps another approach is simply to put artillery into fire bases when you determine it is necessary and then to write it off, feeling that the tactical situation may well develop that will make it imprudent for us to expose our heavy lift helicopters and even our slicks and crews to keep our artillery. These are some of the things that at the conclusion of this discussion we will want to examine as imaginatively and as professionally as we can. Let us get started on really discussing and analyzing the extraction techniques of LAMSON 719.

COL DAVIS:

Sir, I think in retrospect that the problems that we encountered were pretty much common throughout the operation. There are statistics by which we can compare the number of aircraft that were hit during the extraction and resupply of fire bases, versus the number that were hit making combat assaults. We know the time of day, we know about what is going on during that day from the daily operational summary. We can find which aircraft were hit during the extraction and the time they were hit. It was not a significant loss to leave the artillery in place. By the time of the extraction, three out of six tubes were operational. We have to compare the cost of six good 105's versus the cost of one CH-47.

[redacted]

This won't add up.

GEN BERRY:

There is a great deal of tradition involved in the field artillery never losing its guns, and for the field artillery it is a fine tradition. But for airmobile artillery, particularly where the pieces are damaged or destroyed, we do have to balance destroyed artillery versus a one and one-half million dollar aircraft with four or five people aboard. Then you get into a different weighing of the balance than you do when you are on the ground.

MAJ KLOSE:

One of the most difficult tasks is to pick up C&C parties. If the forces have been immobile and have not moved, the enemy is around those forces and have set up their positions. In the case of HOTEL 2, we lived with this for almost a week and watched the situation develop with the regimental commander. We had continuous reconnaissance. There were three reinforced artillery battalions. Elements of the recon company and the engineer company were still at HOTEL 2. One of the battalions to the southwest had been inserted into GRASS 1. As they moved, they had over 100 wounded. At least in four places we tried to extract them, and we resupplied them as often as we could. It became necessary to insert the 3/3 Battalion between fire base HOTEL 2 and the 2/3, which was surrounded, and lift them up. The initial plan was to move the wounded out of the CP of the 3/3. That was aborted because we took mortar fire. Within twenty minutes after the decision was made to try and take out the wounded, the 3/3 CP was taken under heavy fire. The 1/3 moved off the fire base at this time and moved north, and the two battalions, 2/3 and 3/3, together passed through the 1/3. The 1/3 was fresh and was able to slow down the enemy. They moved about six kilometers north of HOTEL 2 and the entire regiment was extracted in one day. The important thing here is the movement. If they had been stationary and the enemy had its antiaircraft weapons in place, they could have controlled the situation around the intended PZ. The movement forced the enemy to dismantle his AA and artillery, carry it overland and set it up again. I believe that is the only reason this extraction went as well as it did. I believe the enemy was in transit when they ran into this blocking force (1/3), and they could not react as fast as we did and therefore we extracted the entire three battalions.

COL DAVIS:

One significant point about HOTEL 2. That was the only extraction that was conducted where an additional unit was brought in to aid in the extraction. The two battalion involved experienced heavy contact for two or three days. All the units we extracted had been in heavy contact for an extended period of time. We probably could not have picked a more difficult situation. They could almost be viewed as rescue operations.

GEN BERRY:

Let me elaborate on that. We're talking of extraction under pressure. With a unit in "extraction under pressure" it becomes a rescue. That means the ground unit has already found itself in dire straits, which means that unless there is movement to change the environment, the helicopters that are going into and coming out of the pickup zone find themselves leaving the air environment and moving into heavy ground contact so that if the helicopter comes in and out of the PZ and enters the ground battery then the small arms, rocket launchers, and mortars, machine guns become AA weapons. The aircraft find themselves going right into the center of the hole of the doughnut, the doughnut being the enemy and the hole being the PZ.

MAJ CLOSE:

The timing is critical in movement. We put airstrikes ahead of the force moving north, and as a fringe benefit they counted 158 bodies as a result of these airstrikes. We had attempted to neutralize the PZ pending their arrival, but they never got to that intended PZ. So, it was really a wasted effort. My point is this: the ground force is going to have to move. If they move too early, it will allow the enemy to follow their movement. The Air Mission Commander and the Ground Commander should have a plan. Ideally they should be able to determine how long the ground force will take to be able to get to the PZ, and then tell them 15 or 20 minutes before they will have to move in order to get there on time, and if it's not successful they will have to break to another area.

COL DAVIS:

I was thinking of the 2d Airborne Battalion. It took two days of

moving before we could extract them. I also think about DELTA where we tried to get in and evacuate the wounded. It had been occupied since 10 Feb by the 1st ARVN Inf Div, then by one of the VNMC regiments. Not only couldn't we extract, we could not even resupply them. After they moved off the hill, we started pulling them out without incident. The successful ones that we did followed movement from a fixed position. This was done at considerable cost.

MAJ KLOSE:

We also had a problem resupplying these people. I think it would be best to over supply them when we can. Send in a couple of basic loads, ammunition, medical supplies, and food, one of which would not be tapped unless the situation was critical. That would be saved until they are ready to move. The ground troops could be advised that they would not be extracted from this FB and would have the necessary supplies to take with them.

GEN BERRY:

In order to construct fire bases, particularly those fire bases that do have artillery on them, we put dozers in, and then you have the dozers and the artillery as inhibiting factors in getting people off the fire base. It may well be that in the future of airmobile operations we will have to rely on mortar support rather than artillery. The light mortar, the 81, the man-portable mortar, not the 4.2, although if technology may permit the development of a 4.2 man-portable mortar, then we'd be somewhere. Principally, it still works well within the 81mm mortar to provide the close-in fire support and then depend on aerial weapons to provide the needed fire power. I think that LAMSON 719 in one sense may have been a mixed breed. That is, we were trying to use traditional ground methods to establish fire bases which may have been appropriate here in Quang Tri, but which proved to be inappropriate in the environment of LAMSON 719. It is this type of lesson we are trying to extract here.

MAJ KLOSE:

It would be too much in one day to put in two infantry battalions, recon company, engineers, and give them two hours to prepare the sites and then put in the howitzers. It might well be better to make an assault with the infantry followed by an engineer company and sometime

during the day get the bulldozer in and try to have the dozer on the site for 24 hours. Its first priority would be personnel bunkers and then gun positions the next day, provided that this site is within range of our supporting artillery, and that we do not leap frog outside the ranges we built. Then the guns are brought in the second day; they backhaul the bulldozer out, then we use the bulldozer on another LZ later. Airmobile operations are very expensive and very risky. We use the same management judgement when we recover a helicopter. Can we do it safely? If we can't, we won't recover it. The same thing applies to artillery. I think we all learned something from HOTEL 2.

COL DAVIS:

I don't think we learned enough. We did the same thing again. I think the HOPE operation was highly successful. They did not have artillery, did not put in bulldozers. We used the true characteristics of an airmobile division, continuous movement. The area was every bit as hostile as any other area, but those two battalions were not tied to a fixed fire base. We have used flexibility of airmobility where we get the people in; then we immediately violate this concept. Actually we negate the very characteristics of capabilities that aid us because we immediately tie ourselves to a fixed installation; and that is not airmobility or use of the airmobile concept. Gen Berry has already alluded to the fact that we are airmobile to a point and then we place ourselves where enemy artillery from 15 or 20 kilometers away can range in on us. On this, I would say the value of the tube artillery on LOLO was negligible because they couldn't shoot it. Anytime they tried to use the guns they took enemy mortars and artillery. I would think, although I don't know if we can show it or not, the value of Fire Base LOLO was negligible. The troops were tied down. They would try to fire, then be knocked out or they could not man the guns. We put ammo in there and not only did they not fire it, but it was never even unpacked from the crates. Troops either would not or could not get out of their holes. I think LOLO and HOPE and the whole business would have been just as well prepared if it had been supported by gunships, ARA, the FAC's, and aerial weapons using movement as a primary means of protection.

MAJ KLOSE:

I agree 100 per cent. The fire base was a very expensive proposition. We move better than the enemy does. We resupply better than he does, and we have better fire power. The minute we give up one of

these advantages, we are giving up a lot. The method of operating with the HAC BAO (ARVN Black Panthers) could be used with an infantry battalion or regiment provided we know that they are going to be in for a certain amount of time and have already planned to extract them and make sure that they have their assault supply with them to last the time they are going to be out there. It is more of a raid type operation than one of occupying a fire base.

COL DAVIS:

The fire base concept should not be used in concert with the air-mobile concept. That type of concept of fixed fire bases would have been more in concert with ground movement, ground attack and establishing a fire base as in WWII tactics.

GEN BERRY:

In our original plan, which called for advancing along Route 9 we envisioned massing bulldozers and plows to push the foliage back along the route. If we had put all of our artillery bases along Route 9 and if the armor had gone forward, the artillery could have been inserted on these fire bases by helicopter. Then trucks could have driven in to provide the needed mobility for that artillery. If we had put no artillery out on the high ground to the northwest of Route 9 and put only airmobile and foot mobile infantry out there, the ARVN would have retained their airmobility. In retrospect, this would have combined the artillery with the ground units and relied on resupply of artillery ammunition principally by vehicle but also by helicopters when appropriate. Then we would have continued with the inherent advantages of mobility on the high ground to the north and south. If we had to do it over again and if we controlled the planning of the ground maneuver, I believe that is the way we should do it.

LTC DUNAWAY: (WORKING GROUP DIRECTOR)

If we had gone much farther, we would have had to do something like this for a rearm/refuel point out there.

MAJ MILLS:

The ARA had a great amount of difficulty in communications.

We had trouble with the ground units identifying the sound direction of the mortars which were firing upon them. If we could get an accurate fix on the direction, that would keep us from trying to give 360 degree protection when they are taking incoming. I believe we can suppress some of that mortar fire. Another point I would like to make is that a heavy defensive fire laid down by that ground force would put us away from their perimeter and let us suppress out where that mortar fire is coming from.

LTC RIDER: (CO, 2/17 CAV)

What is at fault is a language problem. I will make reference specifically to the 2d Airborne Battalion. I worked with them for about three hours trying to determine from where they were getting mortar fire. They sometimes gave you the direction from their position where the mortar landed. I finally made them understand I wanted to know where they were coming from, in what direction is the mortar, where is the enemy. I used so many terms that I have forgotten half of them. Finally, we determined that the enemy fire was from about 110 degrees. At this time I simply drew a little circle 2000 meters out to 3500 meters and said he was somewhere in there, the only logical place being on the side of the hill. We put two airstrikes there and they never received another round. The ARVN didn't receive another mortar round until they were on the move that night. Then they got mortar fire from another location. This is one of the big problems from our standpoint, getting the proper information from the ARVN in order to help them.

GEN BERRY:

The Vietnamese knew that the enemy was monitoring their radio nets. Any call sign that came on their nets that they were not familiar with, they often would not reply to thinking that it could be the enemy.

LTC RIDER:

This instance came up with the 4/1 Battalion and even in the bad condition they were in, it took me about 15 minutes to get them to talk to me. I finally go them to talk to me by referring to OXHORN which they were familiar with. I told them I could help them, and they said, "Who are you?" I finally said, "I am OXHORN'S daddy." They understood that. So the language problem was one of the big problems we

faced in the operation. I don't believe that the use of artillery fire bases is a valid concept for airmobile operations. If we could resupply these people on the move we could prepare pickup zones and resupply zones ahead of them. This is what we did at HOPE. We resupplied them twice. So I believe that the fire base with heavy weapons is an old concept and hinders airmobile operations. We reacted much faster than the NVA. His tactics are nothing. They have been developed over a period of years. One of these tactics is to zero in on static positions and then put anti-aircraft weapons around that position, and the big thing was every time you came in to resupply or attempt to extract, the enemy could make it very expensive for you. The only way to negate this type of tactic is to move and put him in an unprepared posture.

MAJ KLOSE:

The artillery has to be as mobile as the ground forces it supports. That means you have to have self-propelled howitzers. In our case we put them in fire bases and this artillery became static, even though our infantry had to move away from the fire base.

LTC RIDER:

Another point is that we should disengage the units that are least heavily engaged, yet it appears to me during this operation we extracted the units which were most heavily engaged.

MAK KLOSE:

I disagree. Take the case of 4/1st. We got the entire 1st Regt out, but 4/1st came last. I think it was more of a combination of factors, one of which was the communication problem. We spent a lot of time shooting close to the wire. Every time a gunship went over, they thought they were receiving fire from it, and they were not. The NVA choose to fire their mortars when the choppers came over. It increased the confusion by masking the sound of mortars with that of helicopters and also caused a lack of confidence in the supporting arms. Given the set of circumstances that we had, the movement, the tactics the NVA were using, I don't see how we could have done it any differently.

LTC RIDER:

Generally speaking, we were called upon in the extraction phase to

restrain the enemy advance in the situation that existed. The NVA had started to close with infantry. Our screening and reconnaissance efforts in preparation for the extraction were confined to a very small area around the PZ. This is undesirable. I think it would be better used farther away from the PZ. We commonly fired around the fire base. I think we would have been more effective if we would have been farther away slowing down this closing-in process of the NVA. About 40 per cent of the time during the extraction phase, we were firing in support of the unit in contact rather than getting out and hitting the enemy before they could close in.

GEN BERRY:

With our resources and with our organization, in view of the circumstances we encountered, could we have organized ourselves and used our resources to provide close-in fire support, coordination and reconnaissance through means other than the Cav?

LTC RIDER:

In order for us to have conducted reconnaissance and screening in depth, we would have needed movement of ground forces around the static position.

COL DAVIS:

In the final stages around Fire Base DELTA, we saw a reluctance or inability to move out and to secure a reasonable size area around the fire base. As a result, the Cavalry was employed to fill the void. You were actually drawn in as were the gunships and everything else to do the job that a 2000-man infantry brigade should have done by themselves. This took you from your primary area of operation.

GEN BERRY:

You have to coordinate the movement of the ground troops with all of the reconnaissance , all of the supporting fires, and all of the supplying, so there is a unity of command. To go back to the beginning of this operation and because of its peculiar nature, a single lack, and in many ways a fatal lack, was in unity of command.

MAJ KLOSE:

Given the ARVN reluctance to leave their LZ's and firebases, we could use this to our advantage. Establishing a firebase, we could expect a thrust from any direction in a 360 degree arc. Knowing this, we say we are going to establish this firebase and we are going to evacuate this firebase 96 or 120 hours after it has been established. Knowing that the enemy is coming, we could have four or five plans of evacuation using the path of least resistance; but 120 hours from the time we have established this firebase, (we have already planned to have airstrikes on station at 10-minute intervals) we evacuate it and can bring to bear all this fire power on the enemy. We have the enemy where we want him because he is reacting to our movement.

COL DAVIS:

We had them surrounded but it takes a concentrated effort both from inside the doughnut and also outside. You can't do it solely from the outside.

MAJ KLOSE:

We know we could lay in ARC LIGHTS, three days in advance, which would give us an area to leave from. For example, if we were going to leave at 0300 hours and head northeast off DELTA, between 0100 and 0300 hours we would put an airstrike in that area and then start our movement. By sunrise we would have cleared the firebase and our firepower could be brought to bear in a 360 degree radius around the firebase.

GEN BERRY:

On the subject of ARC LIGHTS, what is their purpose? You see them as firepower (supporting). Most view them as destructive fire used against known intelligence. There are always those who question, "What is your target?" or "On what intelligence do you base those ARC LIGHT targets?" However, ARC LIGHTS have proven extremely effective in preparing the way for the infantryman.

MAJ KLOSE:

Why not attack the enemy's strength? Say, if he is strongest to the southwest of DELTA, why could we not have actually dropped it in that area, putting ARC LIGHTS in his known positions and counting as we go and then three or four hours later, extract our people from the ARC LIGHT area?

LTC RIDER:

To be successful, you need what Gen Berry mentioned, unity of command. Without it, the technique doesn't work too well. It needs coordinated action where the ground forces do this at this time and your fire assets do this at this time. Unless things are coordinated, agreed, and executed, based on unity of command, the concept will not work.

LTC DUNAWAY:

I was talking to the people at DASC VICTOR. They thought this was all planned and they were accusing us of constantly changing it once we had it planned. They could not react fast enough to the changes we were making.

COL DAVIS:

That is a real good point. The day we had the briefing for that raid, Col Vallejo brought with him about four FAC's and when they left, they had gained quite an appreciation for what was involved. But if we had changed our smoke eight times that day, they wouldn't have said a word because up until that point, I don't think they knew what was involved.

GEN BERRY:

We should have brought the Air Force into our planning more. Now Vallejo himself was responsible for bringing those FAC's in. It took Vallejo at the working level, who had been with the operation throughout its entirety to bring understanding and flexibility to the situation.

MAJ KLOSE:

This brings us back to our planning. If we know we are getting ready to insert or extract, at that time, we could make arrangements for a tanker to be on station for an 8-12 hour period knowing that we might stack up aircraft.

LTC PHILLIPS:

The benefit of inclusion of the Air Force in our planning is what we had demonstrated the other day. They were at the point of anticipating, I think, by virtue of being at the briefing. I called them and said there was going to be a delay and the FAC said, "I sent them away 5 minutes ago for refueling". He had anticipated because he knew the plan. He knew where I was and was able to anticipate when the smoke would be needed. So, on his own initiative, he sent them back to refuel so they would be on station when I needed them.

COL DAVIS:

This goes back to an earlier point that was made about the liberal distribution of TAC parties. I think that the FAC really achieved what we have been talking about. Every day during the operation, smoke was a crisis. An ALO with the Aviation Group could have solved many of our problems.

MAJ KLOSE:

As an example of flexibility, LTC Phillips' raid worked perfectly. The fact that we could deliberately execute that plan and get in and out scot free shows that we can probably do this at our own choosing. To support this type of operation, the Air Force must have considerable flexibility and responsiveness in their schedule.

GEN BERRY:

There is one other lesson from that operation. We had the nearest thing to unity of command in that raid as we did in anything during LAMSON 719. Col Giai (ADC, 1st ARVN Inf Div) and I were given the responsibility of that raid and yet we had to argue to extract

on the day that we did. I said this to Gen Lam; "If we extract those forces tomorrow, we could guarantee you a high degree of assurance that we will extract with minimum or no losses among your ground forces and among the supporting aircraft. If we are required to keep that force on the ground an additional day, we can give you no such guarantee. In fact, the odds are very high that we will have heavy losses among the ground forces and the supporting aviation forces." It was only after a confrontation that we were permitted to extract those forces at a time and place of our choosing.

LTC RIDER:

A few hours before the force was extracted, an enemy force was seen moving toward their position. Luckily, an ARC LIGHT landed right on top of them. There was no body count but I imagine the casualties were heavy.

COL DAVIS:

I would like to have see us reinsert, in a different area, the same group that we extracted.

LTC RIDER:

This gets back to what the purpose of the raid was. If it was to gain maximum effectiveness of the ground unit, then we have the cart in front of the horse by basing the insertion point in the general area, based on intelligence from aerial reconnaissance. It took us the day they were on the ground plus the next morning prior to the extraction to actually locate where the specific targets should have been. Since we did not do this recon prior to the insertion, we missed the best targets.

GEN BERRY:

To go back to an earlier point, I believe that artillery must be as mobile as the troops it supports. I believe we should keep the towed 105 and 155. They are still valuable in airmobile operations and particularly raid-type operations. I think it would be very unwise to lose the type of artillery we can pick up and move by helicopter.

[redacted]

COL DAVIS:

The artillery that went into LOLO could have moved very easily for three days after it went in. After a few more days went by, it was impossible. During the first few days of LOLO, we had no trouble resupplying them. After three days resupply and extraction was prohibited by the NVA.

MAJ KLOSE:

The 1st ARVN Infantry Division were not always guided by the airmobile doctrine.

COL DAVIS:

I think they were in the HOPE operation. It was a perfect example of what airmobility should be. As long as you are moving, airmobile operations work very well and with minimum expense. But the moment you tie any part of that airmovile operation down to a static position, it is no longer an airmobile operation. It becomes a ground operation and should be supported accordingly.

CPT GOERTEMILLER:

Although the ARVN had been trained well in airmobile tactics, in this operation they learned a tremendous amount. I believe they are considering the use of less artillery in an operation of this type. In the evacuation of HOTEL 2, it was quite a blow to the division commander, but he realized that he freed himself of a mill stone around his neck. So, when he briefed his regimental commanders on the operation into LZ HOPE, he told them that very probably the artillery will have to be left behind; and when these firebases were abandoned, it was no great loss to them.

GEN BERRY:

You remember the artillery was to go on LOLO to support the landing on LIZ. It became apparent during the day to the division commander that the implanting of artillery on LOLO was not essential to the landing on LIZ.

CPT GOERTEMILLER:

I think that they did come to this realization. It was probably a good thing that the artillery on LOLO was not ready when they went into LIZ. It showed that they didn't have to have it. It would have been additional support if they had had it. Later on in an operation of this type, they can probably get by without having artillery support from a firebase while inserting on another one.

GEN BERRY:

As I look over the past nine months, we have tended to become very conservative in our airmobile operations feeling that we must insert our combat assault within 105mm howitzer range. We want to keep our losses to a minimum. And yet this conservatism may have contributed to a set mentality and enabled the enemy to easily predict our plan of operation. One of the first things that I became involved in right after my arrival to this division in July was wrapping up a study concerning the number of Cobras needed in an ARA battalion. We had 36 and they wanted to reduce to 24. If the number had been reduced to 24 prior to this operation, it would have been harmful.

COL DAVIS:

The basis of issue is 24 but USARV has maintained it at 36.

MAJ MILLS:

The 36 came from a direct DX for the Charlie models. Eight Cobras replaces 12 Charlies. There is no way to keep them on station and they cannot react to the number of missions or carry the rocket load. We won't be able to fly the number of sorties required in order to support an airmobile division.

MAJ KLOSE:

They said that eight Cobras deliver the same amount of fire power as 12 UH-1C's, but they forgot the area in which it had to be delivered.

MAJ MILLS:

I feel we have the greatest sucess when we were extracting the four battalions of the 1st Regt. We were talking directly with them on the ground, rather than being farmed out to the AMC or another agency to try to work second hand with this information and when we were physically talking with the people that were located on the ground with the 1st Regt, we knew exactly where they were.

GEN BERRY:

Do you feel that we reduced the effectiveness of the ARA as compared with other operations?

MAJ MILLS:

I don't believe I'm in a position to say. I have no idea in the world what we actually hit when someone said, "Suppress that ridge line."

MAJ KLOSE:

There is a definite need for a system to mark the friendly troops which is not apparent to the enemy troops on the ground. We have had so many instances of not being able to fire our helicopter weapons because we could not determine where the man on the ground was. I propose that somewhere in the R&D program we come up with a system whereby we can get a visual display from our helicopters of where the troops are on the ground. A marker of some kind is needed or an indicator from which you could get a readout which could mark for you the physical presence of the man on the ground. Each man should have something attached to him which would indicate where he is. I think this thing would have to be listed as one of the major problems in Operation LAMSON 719. Are you familiar with the tape the Air Force has for night observation?

LTC RIDER:

We also need something for day time.

MAJ MILLS:

The Air Force has something that they call a mark. At night it makes a luminous splotch which is visible for 7 to 8 hours. I don't know how it is employed. In the daytime they have a similar object that puts out a red stain. I believe it could be put in a grenade type container that the ground troops can employ.

CPT GOERTEMILLER:

In our discussion we discussed the inability of the ARVN to secure the PZ in many cases. The ARVN were shocked at the number of enemy troops they ran into. The NVA were extremely difficult to stop.

GEN BERRY:

Could you study and identify these people for us? It can only be done through your channels. Have we been unfair to ARVN in any of our statements here?

CTP GOERTEMILLER:

I don't think so. Many of the things you said would be less than favorable to the ARVN. However, they work under a different command structure. Below the regimental level, the battalion commander has almost a free hand in controlling his unit. The regimental commander just gives him a general guideline. Above regiment level, it is much tighter. Therefore, for the division commander to make a decision or to plan early is very difficult. In almost all cases he has to get the OK of his next higher commander. I think this may be one of the reasons why in many cases the ARVN did not let their supporting units know what the plans were. For example the move off LOLO. I was in the operation center when the regimental commander called back and asked permission to move off LOLO. There was no doubt in his mind that he had to move, but he still had to get permission to do it.

GEN BERRY:

Give us a description of the command relationships as you see them in the 1st ARVN Infantry Division. Also give us a description of the enemy tactics and his morale. This would aid a great deal in the understanding of the environment of this operation, which is a necessary part of this report.

CPT GOERTEMILLER:

I would like to make a comment on a couple other things. For example, the failure of ARVN units to answer aircraft when they did not know the call sign. At first the ARVN used Vietnamese words as their call signs; but they weren't pronounced properly by the American pilots; thus Vietnamese were reluctant to answer. Later we used letter designation call signs (Whiskey, Delta) which the ARVN knew how to pronounce. This worked out much better.

GEN BERRY:

For the first time in operating with the Vietnamese, we had a lack of American advisors working directly with them on the ground. So the advisor, who is a necessary intermediary between the ARVN and the Americans, was absent in this critical operation. It seems to me that if we add all these adverse conditions together, it is amazing this operation went as well as it did. It will be months however, probably the end of this calendar year before knowledgeable people will be able to accurately assess the value of Operation LAMSON 719.

ANNEX A

REFERENCE DATA

CLASS III A AND V A SUPPLY STATUS

8 FEBRUARY - 24 MARCH 1971

This annex is composed of Figures A-1 through A-8, depicting daily supply status of aviation-associated classes of supply.

CLASS III A SUPPLY STATUS
(Khe Sanh) (8 Feb - 8 Mar)

DATE	ON HAND	RECEIVED	ISSUED
8 Feb	82,000	82,000	0
9 Feb	80,000	0	20,000
10 Feb	63,000	30,000	49,000
11 Feb	130,000	113,400	46,000
12 Feb	118,000	45,400	57,400
13 Feb	60,000	24,800	82,800
14 Feb	42,000	24,600	42,600
15 Feb	114,500	120,200	47,700
16 Feb	113,500	23,200	24,200
17 Feb	96,500	15,000	32,000
18 Feb	82,000	9,600	24,100
19 Feb	112,200	98,100	67,900
20 Feb	121,000	61,400	52,400
21 Feb	88,000	23,100	56,100
22 Feb	105,500	63,500	46,000
23 Feb	146,000	94,400	54,100
24 Feb	193,100	72,900	25,800
25 Feb	204,500	35,800	24,600
26 Feb	164,500	28,300	68,300
27 Feb	143,500	31,500	52,500
28 Feb	168,500	73,200	38,200
1 Mar	154,000	41,500	56,000
2 Mar	117,000	124,000	87,000
3 Mar	104,000	75,000	62,000
4 Mar	100,000	80,000	76,000
5 Mar	210,000	165,700	66,700
6 Mar	200,000	98,000	88,000
7 Mar	260,000	97,000	37,000
8 Mar	280,000	100,300	80,300

Figure A-1 (U) Class III A Supply Status Khe Sanh (U)

(9 Mar - 24 Mar)

DATE	ON HAND	RECEIVED	ISSUED
9 Mar	280,000	3,700	3,700
10 Mar	280,000	0	0
11 Mar	226,200	0	53,000
12 Mar	200,200	7,200	26,000
13 Mar	165,400	53,400	88,000
14 Mar	215,000	96,900	47,300
15 Mar	211,000	14,600	18,600
16 Mar	145,000	0	85,000
17 Mar	159,000	53,700	49,000
18 Mar	190,000	80,500	50,200
19 Mar	239,000	103,500	54,000
20 Mar	160,000	77,200	156,200
21 Mar	240,000	167,000	87,000
22 Mar	200,000	54,600	94,600
23 Mar	230,000	70,000	40,000
24 Mar	220,000	65,300	75,300

Figure A-1 (U) (continued) Class III A Supply Status Khe Sanh (U)

CLASS III A SUPPLY STATUS (Vandergrift)(8 Feb – 8 Mar)

DATE	ON HAND	RECEIVED	ISSUED	COMBAT LOSSES	
8 Feb	30,000	85,000	75,000	28 Feb 71	44,500
9 Feb	40,000	85,000	25,000	7 Mar 71	25,000
10 Feb	100,000	10,000	10,000		69,500
11 Feb	100,000	15,000	70,000		
12 Feb	45,000	75,000	60,000		
13 Feb	60,000	70,000	40,000		
14 Feb	90,000	20,000	50,000		
15 Feb	60,000	75,000	50,000		
16 Feb	85,000	15,000	10,000		
17 Feb	90,000	45,000	40,000		
18 Feb	95,000	45,000	75,000		
19 Feb	65,000	45,000	75,000		
20 Feb	55,000	40,000	25,000		
21 Feb	70,000	70,000	50,000		
22 Feb	90,000	30,000	35,000		
23 Feb	85,000	55,000	50,000		
24 Feb	90,000	25,000	25,000		
25 Feb	90,000	25,000	45,000		
26 Feb	70,000	45,000	45,000		
27 Feb	70,000	40,000	25,000		
28 Feb	85,000	19,500	0		
1 Mar	60,000	80,000	40,000		
2 Mar	100,000	15,000	40,000		
3 Mar	75,000	10,000	10,000		
4 Mar	75,000	30,000	20,000		
5 Mar	85,000	0	20,000		
6 Mar	65,000	5,000	25,000		
7 Mar	45,000	55,000	25,000		
8 Mar	60,000	10,000	10,000		

Figure A-2 (U) Class III A Supply Status Vandergrift (U)

(9 Mar - 24 Mar)

DATE	ON HAND	RECEIVED	ISSUED
9 Mar	60,000	0	15,000
10 Mar	45,000	10,000	20,000
11 Mar	35,000	35,000	25,000
12 Mar	10,000	10,000	30,000
13 Mar	40,000	40,000	20,000
14 Mar	65,000	65,000	35,000
15 Mar	75,000	55,000	45,000
16 Mar	85,000	5,000	35,000
17 Mar	30,000	20,000	33,000
18 Mar	30,000	45,000	35,000
19 Mar	25,000	30,000	25,000
20 Mar	65,000	65,000	5,000
21 Mar	95,000	35,000	55,000
22 Mar	95,000	25,000	40,000
23 Mar	65,000	35,000	45,000
24 Mar	60,000	55,000	15,000

COMBAT LOSSES

18 Mar 71	12,000
24 Mar 71	30,000
	42,000

Figure A-2 (U) (continued) Class III A Supply Status Vandergrift (U)

CLASS III A SUPPLY STATUS
(Lang Con)(8 Feb - 8 Mar)

DATE	ON HAND	RECEIVED	ISSUED	COMBAT LOSS
8 Feb	15,000			
9 Feb	30,000	15,000	0	19 Feb 71 15,000
10 Feb	40,000	15,000	0	
11 Feb	38,000	12,000	2,000	
12 Feb	36,000	0	2,000	
13 Feb	34,000	0	2,000	
14 Feb	33,000	1,000	3,000	
15 Feb	35,000	0	1,000	
16 Feb	35,000	3,600	1,600	
17 Feb	37,000	2,400	2,400	
18 Feb	35,000	3,600	1,600	
19 Feb	19,000	0	2,400	
20 Feb	35,000	0	2.000	
21 Feb	48,000	18,000	1,000	
22 Feb	48,000	14,400	2,000	
23 Feb	48,000	3,600	1,400	
24 Feb	49,000	3,600	3,600	
25 Feb	50,000	5,000	4,000	
26 Feb	38,000	5,000	12,000	
27 Feb	48,000	0	8,000	
28 Feb	38,000	18,000	10,000	
1 Mar	55,000	0	11,000	
2 Mar	62,000	28,000	5,000	
3 Mar	48,000	12,000	14,000	
4 Mar	24,000	0	24,000	
5 Mar	28,000	0	16,000	
6 Mar	65,000	20,000	12,000	
7 Mar	68,000	49,000	12,000	
8 Mar	69,000	15,000	12,000	
		13,000	12,000	

Figure A-3 (U) Class III A Supply Status Lang Con (U)

(9 Mar - 24 Mar)

DATE	ON HAND	RECEIVED	ISSUED
9 Mar	70,000	4,000	3,000
10 Mar	68,000	2,000	4,000
11 Mar	60,000	40,000	12,000
12 Mar	50,000	1,000	11,000
13 Mar	30,000	0	20,000
14 Mar	35,000	15,000	10,000
15 Mar	21,000	1,200	14,000
16 Mar	12,000	13,000	22,000
17 Mar	13,000	14,000	13,000
18 Mar	72,000	91,000	32,000
19 Mar	58,000	2,700	16,000
20 Mar	24,000	0	34,000
21 Mar	17,000	17,500	33,500
22 Mar	Closed Down		
23 Mar	Closed Down		
24 Mar	Closed Down		

Figure A-3 (U) (continued) Class III A Supply Status Lang Con (U)

CLASS III A SUPPLY STATUS
(Dong Ha) (8 Feb - 8 Mar)

DATE	ON HAND	RECEIVED	ISSUED
8 Feb	35,000	5,000	5,000
9 Feb	35,000	20,000	25,000
10 Feb	30,000	25,000	35,000
11 Feb	20,000	10,000	20,000
12 Feb	10,000	20,000	10,000
13 Feb	20,000	15,000	15,000
14 Feb	20,000	20,000	15,000
15 Feb	20,000	15,000	15,000
16 Feb	25,000	15,000	10,000
17 Feb	30,000	10,000	10,000
18 Feb	30,000	10,000	15,000
19 Feb	25,000	20,000	15,000
20 Feb	30,000	15,000	15,000
21 Feb	30,000	10,000	15,000
22 Feb	25,000	20,000	15,000
23 Feb	30,000	15,000	20,000
24 Feb	25,000	20,000	20,000
25 Feb	30,000	20,000	20,000
26 Feb	25,000	15,000	20,000
27 Feb	25,000	20,000	15,000
28 Feb	25,000	15,000	20,000
1 Mar	10,000	0	15,000
2 Mar	15,000	25,000	20,000
3 Mar	20,000	15,000	10,000
4 Mar	35,000	25,000	10,000
5 Mar	25,000	0	10,000
6 Mar	25,000	10,000	10,000
7 Mar	35,000	25,000	15,000
8 Mar	25,000	5,000	15,000

Figure A-4 (U) Class III A Supply Status Dong Ha (U)

(9 Mar - 24 Mar)

DATE	ON HAND	RECEIVED	ISSUED
9 Mar	29,000	15,000	11,000
10 Mar	37,000	15,000	12,000
11 Mar	23,000	0	14,000
12 Mar	20,000	10,000	10,000
13 Mar	20,000	20,000	25,000
14 Mar	22,000	15,000	13,000
15 Mar	20,000	10,000	10,000
16 Mar	35,000	25,000	20,000
17 Mar	38,000	15,000	13,000
18 Mar	35,000	10,000	10,000
19 Mar	35,000	15,000	15,000
20 Mar	30,000	10,000	10,000
21 Mar	17,000	10,000	13,000
22 Mar	20,000	10,000	10,000
23 Mar	3,000	0	12,000
24 Mar	25,000	10,000	15,000

Figure A-4 (U) (continued) Class III A Supply Status Dong Ha (U)

CLASS V A SUPPLY STATUS
(Khe Sanh) (1 Mar - 8 Mar)

DATE	M490-10 lb-Rckts			M534-17 lb-Rckts			M459 Flec Rckts		
	O/H	Rec	Iss	O/H	Rec	Iss	O/H	Rec	Iss
1 Mar	2,776	0	792	1,365	0	136	1,344	88	145
2 Mar	2,084	0	568	1,229	1,866	328	1,287	0	203
3 Mar	1,516	3,214	1,193	2,767	198	254	1,084	365	71
4 Mar	3,537	0	900	2,711	0	199	1,378	0	335
5 Mar	2,637	1,574	1,007	2,512	441	249	1,043	174	217
6 Mar	3,204	0	300	2,704	0	591	1,000	0	177
7 Mar	2,094	0	455	2,113	524	15	823	509	49
8 Mar	2,447	218	588	2,722	0	45	1,283	430	116
				(9 Mar - 24 Mar)					
9 Mar	2,079	329	200	2,677	0	44	1,597	0	75
10 Mar	2,208	0	145	2,633	0	40	1,532	0	0
11 Mar	2,063	0	120	2,593	0	135	1,522	0	11
12 Mar	1,943	1,674	437	2,468	0	164	1,411	0	56
13 Mar	3,180	829	506	2,304	0	128	1,455	0	74
14 Mar	3,503	0	750	2,186	0	89	1,381	382	125
15 Mar	2,753	0	381	2,097	0	111	1,638	0	17
16 Mar	2,372	0	939	1,986	0	85	1,621	0	130
17 Mar	1,633	0	585	1,901	0	113	1,391	0	14
18 Mar	1,048	565	1,249	1,788	0	208	1,577	0	121
19 Mar	364	1,249	958	1,580	0	206	1,3[illegible]	0	65
20 Mar	1,614	4,173	1,036	1,374	0	183	1,291	0	139
21 Mar	4,750	5,052	836	1,191	0	44	1,152	0	130
22 Mar	8,966	0	547	1,147	533	80	1,022	0	74
23 Mar	6,646	0	320	1,600	0	154	948	0	55
24 Mar	6,326	0	289	1,446	0	165	893	0	20

22 Mar Combat Loss 1,673

8 - 28 Feb data not available

Figure A-5 (U) Class V A Supply Status Khe Sanh (U)

(1 Mar - 8 Mar)

DATE	R470 - 40mm O/H	Rec	Iss	A165 - 7.62mm O/H	Rec	Iss	A653 - 20mm O/H	Rec	Iss
1 Mar	42,500	0	250	416,500	0	27,000	51,300	0	5,500
2 Mar	42,350	0	950	389,500	0	69,000	45,800	0	2,550
3 Mar	41,600	0	300	320,500	0	26,750	43,250	0	3,650
4 Mar	41,300	0	1,100	293,750	0	26,000	39,600	0	800
5 Mar	40,500	0	50	267,850	0	35,000	38,800	0	2,300
6 Mar	40,450	0	250	232,750	0	19,500	35,400	0	700
7 Mar	40,200	0	350	203,750	0	10,500	34,300	0	400
8 Mar	39,850	2,400	750	213,250	0	27,250	33,900	0	1,200
				(9 Mar - 24 Mar)					
9 Mar	42,100	0	450	176,500	13,000	3,000	33,900	0	300
10 Mar	41,650	0	450	187,000	0	12,250	35,000	0	0
11 Mar	41,200	0	150	174,750	0	47,750	34,200	1,600	500
12 Mar	41,050	0	750	137,000	0	8,250	33,900	0	800
13 Mar	40,300	0	650	128,750	93,750	19,000	32,800	0	300
14 Mar	39,650	0	350	205,500	0	15,000	36,500	0	1,100
15 Mar	39,300	0	450	190,500	0	4,500	35,800	0	1,200
16 Mar	38,850	0	400	186,000	0	41,250	31,600	0	1,400
17 Mar	38,450	0	350	144,750	0	36,750	30,200	0	4,300
18 Mar	38,100	0	1,900	108,000	117,500	25,500	25,900	0	3,600
19 Mar	36,200	0	350	200,000	260,000	29,500	22,300	0	1,600
20 Mar	35,850	0	550	430,500	0	74,000	20,700	0	2,400
21 Mar	35,300	0	1,500	356,500	0	26,000	18,200	0	800
22 Mar	33,800	0	750	330,500	0	55,750	17,500	8,100	1,300
23 Mar	33,050	0	400	274,750	99,250	75,500	24,300	0	2,500
24 Mar	32,650	0	150	298,500	0	12,000	21,800	0	100

Figure A-5 (U) (continued) Class V A Supply Status Khe Sanh (U)

CLASS V A SUPPLY STATUS
(VANDERGRIFT)

Dat not available by day from 8 - 28 February .

TYPE AMMUNITION	QUANTITY ISSUED
H490 - 1016 Rckts	2549
H534 - 1716 Rckts	4480
H459 - Flec Rckts	2429
A653 - 20mm	NA
B470 - 40mm	45,000
A165 - 7.62mm	43,250

(1 Mar - 8 Mar)

DATE	H490-10 lb-Rckts			H534-17 lb-Rckts			H459-Flec-Rckts		
	O/H	Rec	Iss	O/H	Rec	Iss	O/H	Rec	Iss
1 Mar	6,696	486	100	3,811	900	10	673	0	15
2 Mar	8,292	2,900	252	4,138	600	146	571	0	58
3 Mar	8,429	2,776	2,116	3,313	400	758	494	0	77
4 Mar	9,184	640	151	5,582	1,500	97	4,032	512	26
5 Mar	7,102	0	322	5,041	0	86	796	0	56
6 Mar	6,593	0	1,908	5,088	0	109	920	0	0
7 Mar	5,995	0	342	5,118	0	169	853	0	58
8 Mar	4,846	0	417	4,779	0	141	864	0	3

(9 Mar - 24 Mar)

9 Mar	4,550	0	229	3,420	0	296	864	0	0
10 Mar	5,418	0	55	5,418	0	55	864	0	0
11 Mar	4,971	0	437	4,971	0	437	755	0	76
12 Mar	5,256	0	999	5,256	0	99	738	0	16
13 Mar	3,424	0	741	3,424	0	741	703	0	7
14 Mar	2,615	0	644	2,615	0	644	687	0	16
15 Mar	3,994	460	195	3,994	0	195	719	0	21
16 Mar	3,540	640	583	3,540	0	583	599	0	50
17 Mar	2,957	0	62	2,957	0	62	621	0	0
18 Mar	3,215	0	745	3,215	0	745	591	0	0
19 Mar	2,160	0	1,055	2,160	0	1,055	599	0	30
20 Mar	6,140	0	2,208	3,441	0	2,208	518	0	25
21 Mar	4,264	0	2,488	3,441	0	0	507	0	6
22 Mar	3,286	0	101	3,413	0	28	2,805	2,218	0
23 Mar	2,471	0	815	3,349	0	64	2,731	0	74
24 Mar	1,593	0	878	3,349	0	0	2,518	0	113

Figure A-6 (U) Class V A Supply Status Vandergrift (U)

(1 Mar - 8 Mar)

DATE	A653 - 20mm			B470 - 40mm			A165 - 7.62mm		
	O/H	Rec	Iss	O/H	Rec	Iss	O/H	Rec	Iss
1 Mar	95,200	0	300	16,400	0	700	261,000	90,000	6,000
2 Mar	94,100	0	800	15,950	0	450	261,000	0	7,500
3 Mar	93,000	0	1,400	39,400	23,400	400	255,000	0	3,000
4 Mar	91,550	0	450	39,150	0	150	248,500	0	7,500
5 Mar	93,300	0	300	38,800	0	350	243,000	0	21,000
6 Mar	92,150	0	850	38,800	0	0	138,750	0	23,250
7 Mar	92,400	0	800	38,800	0	500	217,500	90,000	18,000
8 Mar	83,200	0	400	36,000	0	750	193,500	0	13,500

(9 Mar - 24 Mar)

9 Mar	83,100	0	0	36,660	0	0	193,500	0	0
10 Mar	83,400	0	0	37,100	0	0	486,000	306,000	4,500
11 Mar	83,400	0	0	36,900	0	200	480,000	0	6,000
12 Mar	83,400	0	0	36,700	0	200	480,000	0	0
13 Mar	83,400	0	0	45,350	9,000	350	471,000	0	9,000
14 Mar	83,400	0	0	45,050	0	300	460,000	0	11,000
15 Mar	86,200	0	0	53,000	0	200	462,000	0	1,500
16 Mar	86,200	0	0	43,250	0	800	451,000	0	3,000
17 Mar	86,200	0	0	43,150	0	100	430,500	0	21,000
18 Mar	86,200	0	21,000	43,050	0	0	403,500	0	0
19 Mar	85,600	0	800	42,900	0	150	534,000	0	85,500
20 Mar	85,600	0	0	42,850	0	100	510,000	0	15,000
21 Mar	85,500	0	100	42,850	0	0	514,000	0	3,000
22 Mar	85,500	0	0	42,850	0	0	658,500	0	0
23 Mar	85,500	0	0	42,350	0	500	639,000	0	19,500
24 Mar	85,500	0	0	42,150	0	200	634,500	0	4,500

Figure A-6 (U) (continued) Class V A Supply Status Vandergrift (U)

CLASS V A SUPPLY STATUS
(Lang Con)(13 Feb - 8 Mar)

DATE	M490-10 lb-Rckts			M534-17 lb-Rckts			M59-Flec-Rckts		
	O/H	Rec	Iss	O/H	Rec	Iss	O/H	Rec	Iss
13 Feb	540	540	0	480	480	0	324	0	0
14 Feb	540	0	0	480	0	0	324	0	0
15 Feb	290	0	250	480	0	0	324	0	0
16 Feb	250	0	40	960	480	0	303	0	21
17 Feb	450	256	56	948	0	12	297	0	6
18 Feb	370	0	80	920	0	28	297	0	0
19 Feb	550	256	76	1,240	320	0	280	0	17
20 Feb	650	256	156	1,325	0	15	262	0	12
21 Feb	580	0	70	1,199	0	26	262	0	0
22 Feb	709	256	125	1,188	0	11	240	0	22
23 Feb	513	0	196	1,163	0	25	240	0	0
24 Feb	720	250	49	1.141	0	22	212	0	28
25 Feb	548	0	172	1,156	80	65	258	54	8
26 Feb	754	324	118	1,309	200	45	410	162	10
27 Feb	884	256	126	1,469	160	0	463	108	55
28 Feb	727	0	157	1,335	0	134	445	0	18
1 Mar	786	299	240	1,323	22	34	420	26	51
2 Mar	914	162	34	1,277	0	46	389	54	24
3 Mar	1,144	620	90	1,853	477	0	282	0	61
4 Mar	1,130	0	314	1,817	0	26	229	0	27
5 Mar	974	0	156	1,808	0	9	248	0	33
6 Mar	998	76	52	1,827	28	9	371	0	81
7 Mar	1,703	777	72	1,827	0	0	469	124	1
8 Mar	1,660	0	43	1,784	0	43	450	108	10
				(9 Mar - 24 Mar)					
9 Mar	1,595	0	65	1,790	0	0	114	0	1
10 Mar	1,493	0	102	1,776	0	14	114	0	0
11 Mar	1,554	128	69	1,854	100	24	114	0	0
12 Mar	1,203	0	352	1,718	0	136	403	0	19
13 Mar	1,446	128	134	1,621	0	97	393	0	10
14 Mar	1,044	0	102	1,621	0	0	474	108	27
15 Mar	775	0	269	1,468	0	153	382	0	92
16 Mar	346	0	429	1,369	0	99	407	48	23
17 Mar	48	0	298	1,151	0	218	459	0	62
18 Mar	1,008	1580	620	964	25	215	449	408	143
19 Mar	435	0	663	900	0	64	638	0	11
20 Mar	432	518	515	795	0	105	665	144	113
21 Mar	483	648	595	654	0	141	598	0	67
22 Mar	Closed Down								
23 Mar	Closed Down								
24 Mar	Closed Down								

Figure A-7 (U) Class V A Supply Status Lang Con (U)

DATE	B470 – 40mm			A165 – 7.62mm			A653 – 20mm		
	O/H	Rec	Iss	O/H	Rec	Iss	O/H	Rec	Iss
13 Feb	27,000	27,000	0	54,000	5,400	0	12,000	12,000	0
14 Feb	27,000	0	0	54,000	0	0	12,000	0	0
15 Feb	26,900	0	0	49,500	0	4,500	11,900	0	100
16 Feb	26,850	0	50	48,000	0	1,500	11,700	0	200
17 Feb	26,850	0	0	48,000	0	0	11,700	0	0
18 Feb	26,800	0	50	45,000	0	3,000	11,600	0	100
19 Feb	26,800	0	0	43,500	0	1,500	13,600	2,000	0
20 Feb	26,700	0	100	43,500	0	100	13,500	0	100
21 Feb	26,650	0	50	43,500	0	0	15,500	0	0
22 Feb	26,650	0	0	42,000	0	0	13,500	0	0
23 Feb	26,650	0	0	37,500	0	1,500	13,466	0	34
24 Feb	26,650	0	0	37,500	0	1,500	13,300	0	166
25 Feb	26,650	0	0	37,500	0	0	13,300	0	0
26 Feb	26,350	0	300	30,000	0	0	13,300	0	0
27 Feb	26,350	0	0	28,500	0	7,500	12,500	0	700
28 Feb	26,350	0	0	21,000	0	1,500	11,800	0	800
1 Mar	26,050	0	300	16,500	0	4,500	11,800	0	0
2 Mar	26,500	0	0	12,000	0	4,500	11,800	0	0
3 Mar	26,050	0	0	10,500	0	1,500	11,800	0	0
4 Mar	25,900	0	150	6,000	0	4,500	11,800	0	0
5 Mar	25,450	0	250	6,000	0	0	11,800	0	0
6 Mar	25,450	0	200	24,000	18,000	0	11,800	0	0
7 Mar	25,650	0	0	73,500	54,000	4,500	11,800	0	0
8 Mar	25,450	0	0	64,500	0	9,000	11,700	0	100

(9 Mar – 24 Mar)

9 Mar	25,450	0	0	64,500	0	0	11,700	0	0
10 Mar	25,450	0	0	61,500	0	3,000	11,700	0	0
11 Mar	25,450	0	0	127,000	72,000	6,000	11,700	0	0
12 Mar	25,450	0	0	125,500	0	2,000	11,700	0	0
13 Mar	25,450	0	0	115,000	0	10,000	11,700	0	0
14 Mar	25,450	0	0	113,500	0	1,500	11,700	0	0
15 Mar	25,300	0	0	100,000	0	13,500	11,700	0	0
16 Mar	25,150	0	150	99,000	0	1,000	11,700	0	0
17 Mar	25,150	0	0	94,500	0	4,500	11,700	0	0
18 Mar	25,150	0	0	63,000	0	31,500	11,340	0	30
19 Mar	24,750	0	400	39,000	0	24,000	11,300	0	10
20 Mar	24,650	0	100	24,500	0	14,500	9,900	0	1,4
21 Mar	24,650	0	0	11,000	0	13,500	10,600	700	
22 Mar	Closed Down								
23 Mar	Closed Down								
24 Mar	Closed Down								

Figure A-7 (U) (continued) Class V A Supply Status Lang Con (U)

CLASS V A SUPPLY STATUS
(Dong Ha)

Only consolidated quantities are available for 2.75 rockets from 8 Feb - 3 Mar 71

DATE	O/H	REC	ISS	DATE	O/H	REC	ISS
8 Feb	3,504	450	0	20 Feb	3,282	0	10
9 Feb	3,373	0	30	21 Feb	3,282	450	0
10 Feb	3,474	0	0	22 Feb	3,732	3,176	10
11 Feb	3,434	0	40	23 Feb	6,908	0	0
12 Feb	3,242	0	10	24 Feb	6,908	0	0
13 Feb	3,414	0	10	25 Feb	6,939	61	30
14 Feb	3,384	0	30	26 Feb	6,927	0	12
15 Feb	3,364	0	20	27 Feb	6,908	0	19
16 Feb	3,332	0	32	28 Feb	6,908	0	0
17 Feb	3,312	0	10	1 Mar	6,887	0	9
18 Feb	3,302	0	10	2 Mar	6,887	0	0
19 Feb	3,292	0	10	3 Mar	6,887	0	0

(3 Mar - 8 Mar)

DATE	H490-10 lb-Rckts			H534-17 lb-Rckts			H450 Flec Rckts		
	O/H	Rec	Iss	O/H	Rec	Iss	O/H	Rec	Iss
3 Mar	3,870	0	0	2,386	0	0	587	0	0
4 Mar	3,870	0	16	2,386	0	20	587	0	8
5 Mar	3,870	100	100	2,404	0	18	595	16	8
6 Mar	3,702	0	68	2,404	0	0	579	0	16
7 Mar	3,561	35	125	2,442	58	20	582	12	8
8 Mar	3,519	0	42	2,442	0	0	582	0	0

(9 Mar - 24 Mar)

9 Mar	3,367	0	17	2,293	0	0	574	0	17
10 Mar	3,462	0	0	2,297	0	0	578	0	0
11 Mar	3,439	0	32	2,437	0	0	577	0	0
12 Mar	3,423	0	0	2,433	0	4	582	0	0
13 Mar	3,443	11	0	2,433	0	0	582	0	0
14 Mar	3,345	0	74	2,437	0	0	582	0	0
15 Mar	3,256	0	89	2,436	0	0	581	0	0
16 Mar	3,189	0	29	2,437	0	0	581	0	0
17 Mar	3,101	0	88	2,437	0	0	581	0	0
18 Mar	3,021	0	74	2,431	0	16	565	0	16
19 Mar	2,902	0	59	2,431	0	0	575	0	8
20 Mar	2,809	0	53	2,431	0	3	575	0	0
21 Mar	2,702	0	0	2,423	0	0	575	0	0
22 Mar	2,527	0	193	2,431	0	0	582	0	9
23 Mar	2,471	0	19	2,399	0	6	568	0	4
24 Mar	2,396	0	63	2,431	0	4	568	0	14

Figure A-8 (U) Class V A Supply Status Dong Ha (U)

(3 Mar - 8 Mar)

DATE	B470 - 40mm O/H	Rec	Iss	A165 - 7.62mm O/H	Rec	Iss	A653 - 20mm O/H	Rec	Iss
3 Mar	32,800	0	0	346,500	0	0	42,900	0	0
4 Mar	32,800	0	0	346,500	0	61,000	42,900	0	0
5 Mar	32,600	0	200	297,500	0	43,000	42,900	0	0
6 Mar	32,500	900	1,000	286,500	0	11,500	42,900	0	0
7 Mar	32,400	0	0	270,000	0	16,500	42,900	0	0
8 Mar	32,400	0	0	270,000	0	6,000	42,900	0	0

(9 Mar - 24 Mar)

9 Mar	32,400	0	0	250,500	0	7,600	42,900	0	0
10 Mar	43,350	0	0	252,000	0	0	42,900	0	0
11 Mar	32,350	0	0	252,000	0	0	42,900	0	0
12 Mar	32,400	0	0	229,000	0	31,000	42,900	0	0
13 Mar	32,400	0	0	214,000	0	15,000	42,900	0	0
14 Mar	32,350	0	50	199,500	0	15,000	42,900	0	0
15 Mar	32,350	0	0	186,000	0	13,000	42,900	0	0
16 Mar	32,350	0	0	144,000	0	33,000	42,900	0	0
17 Mar	32,350	0	0	125,000	0	21,000	44,900	0	0
18 Mar	32,350	0	0	111,000	0	12,000	42,800	0	0
19 Mar	32,350	0	0	81,000	0	30,000	42,800	0	0
20 Mar	32,350	0	0	51,000	0	30,000	42,700	0	0
21 Mar	32,350	0	0	31,000	0	19,500	42,700	0	0
22 Mar	32,150	0	0	26,000	0	5,500	42,500	0	0
23 Mar	32,150	0	0	111,000	74,500	10,500	42,500	0	0
24 Mar	32,150	0	0	174,000	82,000	19,500	42,500	0	0

Figure A-8 (U) (continued) Class V A Supply Status Dong Ha (U)

ANNEX B

WEATHER SUMMARY
KHE SANH

1. Based on the 0800, 1200 and 1600 hour observations for Khe Sanh, the following amount of air support could be given LAMSON 719 operations from 9 Feb through 25 March. The amount of air support available during this period is based on the minimum ceiling requirements established by the Army and Air Force. These minimums are 1000 feet AGL (above ground level) for Army air support and 3000 feet AGL for tactical air support.

   a. Number of days the ceiling was above 1000 feet AGL from 0800 to 1800 hours: 15 days (33%).

   b. Number of days the ceiling was above 1000 feet AGL from 1200 to 1800 hours: 29 days (64%)

   c. Number of days the ceiling was above 3000 feet AGL from 0800 to 1800 hours: 12 days (26%)

   d. The number of days the ceiling was above 3000 feet AGL from 1200 to 1800 hours: 21 days (47%)

2. It should be noted that these figures are based on Khe Sanh weather observations only. There were no ground based weather observations available in the Laos area of operation during this period.

3. Laos data available during the last 10 days of the operation indicated no significant differences between reported sky conditions in Eastern Laos and those observed at Khe Sanh.

DATE/TIME	CEILING	VISIBILITY	WEATHER
February			
09/0800H	00	00	Drizzle, Fog
1200H	00	00	Drizzle, Fog
1600H	00	1/16	Drizzle, Fog
10/0800H	00	00	Fog
1200H	600	6	Haze
1600H	800	7	-
11/0800H	600	1	Fog
1200H	1000	6	Haze
1600H	None	6	Haze
12/0800H	700	1	Fog
1200H	None	7	-
1600H	None	7	-
13/0800H	None	7	-
1200H	None	7	-
1600H	None	7	-
14/0800H	None	7	-
1200H	None	7	-
1600H	None	7	-
15/0800H	500	5	Fog
1200H	200	5	Drizzle, Fog
1600H	900	7	-
16/0800H	00	00	Drizzle, Fog
1200H	1000	7	-
1600H	1000	7	-
17/0800H	100	1/8	Fog
1200H	300	3	Fog
1600H	00	00	Fog
18/0800H	00	00	Fog
1200H	1500	7	-
1600H	2000	7	-

Figure B-1 (U). Weather Observations for the South (U)

DATE/TIME	CEILING	VISIBILITY	WEATHER
February, continued			
19/0800H	None	7	-
1200H	None	7	-
1600H	None	7	-
20/0800H	400	3	Fog
1200H	None	7	-
1600H	None	7	-
21/0800H	None	1	Fog
1200H	None	7	-
1600H	None	7	-
22/0800H	00	1/4	Fog
1200H	None	7	-
1600H	None	7	-
23/0800H	400	2	Fog
1200H	None	6	Haze
1600H	None	7	-
24/0800H	00	1/16	Fog
1200H	300	5	Haze
1600H	2000	6	Haze
25/0800H	100	1/4	Fog
1200H	None	6	Haze
1600H	2500	6	Haze
26/0800H	00	00	Rain, Fog
1200H	7000	1/2	Fog
1600H	None	7	-
27/0800H	None	7	-
1200H	None	7	-
1600H	None	7	-
28/0800H	None	7	-
1200H	None	7	-
1600H	None	7	-

Figure B-1 (U) (continued) Weather Observations for Rio Sanh (U)

DATE/TOD	CEILING	VISIBILITY	WEATHER
March			
01/0800H	None	7	-
1200H	None	7	-
1600H	None	7	-
02/0800H	None	7	-
1200H	None	7	-
1600H	None	7	-
03/0800H	None	6	Haze
1200H	None	6	Haze
1600H	None	7	-
04/0800H	100	1/8	Fog
1200H	None	7	-
1600H	None	7	-
05/0800H	00	1/16	Drizzle, Fog
1200H	1500	6	Haze
1600H	3000	6	Haze
06/0800H	1500	4	Fog
1200H	None	7	-
1600H	None	7	-
07/0800H	200	1/8	Fog
1200H	1400	7	-
1600H	1500	7	-
08/0800H	1000	5	Haze
1200H	1400	7	-
1600H	2000	7	-
09/0800H	400	1 1/2	Drizzle, Fog
1200H	500	2	Drizzle, Fog
1600H	500	2	Drizzle, Fog
10/0800H	100	1/2	Fog
1200H	100	0	Fog
1600H	300	1	Fog

Figure B-1 (U) (continued) Weather Observations for Khe Sanh (U)

DATE/TIME	CEILING	VISIBILITY	WEATHER
March continued			
11/0800H	800	1	Fog
1200H	600	6	Haze
1600H	1200	7	-
12/0800H	300	1	Rain, Fog
1200H	600	7	Rain Shower
1600H	1400	7	-
13/0800H	500	1 1/4	Rain Shower
1200H	800	6	Haze
1600H	2500	7	-
14/0800H	800	5	Fog
1200H	1200	6	Haze
1600H	800	5	Rain Shower
15/0800H	800	1	Drizzle, Fog
1200H	800	1	Drizzle, Fog
1600H	700	2	Drizzle, Fog
16/0800H	600	2 1/2	Fog
1200H	600	4	Haze
1600H	300	2	Fog Rain
17/0800H	300	1	Fog
1200H	500	4	Haze
1600H	1000	5	Haze
18/0800H	600	4	Fog
1200H	1200	6	Haze
1600H	1000	6	Haze
19/0800H	200	1/2	Fog
1200H	700	5	Haze
1600H	900	6	Haze
20/0800H	100	0	Fog
1200H	None	6	Haze
1600H	None	6	Haze

Figure B-1 (U) (continued) Weather Observations for Khe Sanh (U)

DATE/TIME	CEILING	VISIBILITY	WEATHER
March continued			
21/0800H	None	3	Fog
1200H	None	4	Haze
1600H	None	4	Haze
22/0800H	None	4	Haze
1200H	8000	1 1/2	Fog
1600H	20,000	6	Haze
23/0800H	3,000	6	Haze
1200H	None	5	Haze
1600H	None	7	-
24/0800H	None	6	Fog
1200H	2000	5	Haze
1600H	1000	4	Haze
25/0800H	200	1/4	Fog
1200H	500	3	Haze
1600H	No Data		

Figure B-1 (U) (continued) Weather Observation for Nha Sanh (U)

ANNEX C

SUMMARY OF ENGINEER ACTIVITIES

IN SUPPORT OF LAMSON 719

A. (U) BACKGROUND

The 326th Engineer Battalion (Airmobile) was informed initially about Operation LAMSON 719 on 16 January 1971 by the 45th Engineer Group, whose area of engineer responsibility coincides with the XXIV Corps Tactical Zone. At that time CO, 326th Engineer Battalion was briefed on the operation indicating that the 326th Engineer Battalion would form an airmobile operational organization (Task Force 326) which was to open the westernmost 16 kilometer section of Route 9 leading from Dong Ha to Khe Sanh.

B. (U) GENERAL

US forces in Northern Military Region I recently have been supported by two combat engineer battalions: the 27th Engineer Battalion (C) generally from the Hai Van Pass north to the Trac Ma River; and the 14th Engineer Battalion (C) generally from the Trac Ma River north to the DMZ. The 45th Engineer Group issues the operational commitments for both these battalions. Additionally, Company A, 7th Engineer Battalion provides organic support for the 1st Brigade, 5th Infantry Division (Mechanized); and the 326th Engineer Battalion (Airmobile) is the organic engineer battalion for the 101st Airborne Division (Airmobile). Each of these engineer units was employed in its traditional combat engineer role except the 326th Engineer Battalion (Airmobile) which was to form a task force under OPCON of the 27th Engineer Battalion, 45th Engineer Group, since the Screaming Eagle Engineers were operating out of their normal area of operations. Each ARVN division had its respective organic engineer battalion throughout the entire operation. It should be noted that ARVN divisional engineer battalions are not equipped with airmobile engineer equipment but rather the heavier models that are generally similar to the equipment found in an engineer battalion organic to a US infantry division. However, during this particular operation the ARVN engineer units were equipped with lighter airmobile bulldozers to support combat engineer operations in Laos.

C. (U) ORGANIZATION

The engineer task force was configured to provide the proper mix of engineer equipment and personnel to optimize the airmobile engineer mission. Additionally, all other engineer operational commitments were maintained in addition to the significant engineer requirement associated with Operation LAMSON 719.

1. 326th Engineer Battalion:

TF 326 was formed so that the battalion could continue all operations in support of the 101st Airborne Division (Airmobile) as well as assume the additional requirements to open a mountanious 16 kilometer section of Route 9, to construct a C-130 assault airfield at Khe Sanh and to begin repairs of the AM-2 matting on the existing C-130 airfield. To perform the massive earthwork requirements on the C-130 assault airfield a reinforced heavy equipment platoon from HHC, 326th Engineer Battalion (Airmobile) was utilized. The repairs on the existing AM-2 aluminum mat airstrip required considerable cutting, welding and manpower. A platoon from the 27th Engineer Battalion was attached to TF 326 during the initial phase of the operation to begin these repairs. An Explosive Ordnance Diposal (EOD) team and a survey section from the 45 th Engineer Group were attached to increase the capabilities of the task force.

2. 14th Engineer Battalion (C)

With the mission of opening Route 9 from FB Vandergrift to bridge #33 (vicinity of FB Shepard) and upgrade Route 9 to Khe Sanh varying elements of the 14th Engineer Battalion (-) were utilized in their normal combat engineer role as required.

3 27th Engineer Battalion (C)

The 27th Engineer Battalion (-) consisted of the headquarters element, one combat engineer company, a light equipment company and one land clearing platoon. Upon arrival at Khe Sanh on day D+2 (1 Feb 71) the battalion (-) assumed its normal engineer support role operating from Khe Sanh generally west to the Laotion border.

D. (U) ENGINEER MISSION

Normally, the airmobile engineer battalion should be given a mission

type order. Conventional combat engineers at any level do not have the mobility, the expertise, the communications, or the logistic support capability to maintain the pace of the operations of an airmobile engineer unit. As the conventional engineers work their way overland to an area of operations, the responsibility for engineer operations should be passed to them thus freeing the airmobile engineers to conduct further airmobile tasks.

E. (U) PLANNING AIRMOBILE/ENGINEER OPERATIONS

Unquestionably, the most valuable information obtainable is that which can be gleaned from those who previously have occupied the ground. After action reports, "as built" drawings and a soil analysis are examples of such data. If the area has not been occupied previously by friendly troops, aerial photography can be of immeasurable value. Large numbers of oblique photographs of all bridges and the existing airfield were provided prior to the outset of the operation. However, only one set of poor contrast, low quality stereo pairs could be found; fortunately this stereo pair was of the Khe Sanh airfield area. In fact, it was based upon this set of photographs that the final centerline was selected for the assault airfield. However, due to the poor quality of these photographs other obvious problem areas were not discovered until subsequent landing into the objective area. For example, on D-day a large exploded ammunition dump, partially exposed reinforced concrete and CONEX type bunkers and massive quantities of unexploded ammunition were detected upon landing. Since the photographs were of such poor clarity and contrast, slots that had been the USMC old ammunition dump area appeared as a dendritic drainage area. This, in the absence of soil analysis, but coupled with fertile plantations in the area led one to assume that the soil type was a well graded, loamy soil - a good construction material - when in fact it was not. The poor photographic quality also made the detection of vast mined areas impossible prior to the operation. Vertical stereo pairs of bridges and all sections of the road also are important. For example, the best estimate of the span between the existing abutments on bridge #33 was 45 feet. This estimate was based upon two oblique photos which cannot be scaled because of scale variations at all points in the photograph. When engineer elements arrived at the bridge they discovered that the gap was actually 58 feet and could not be bridged as planned by the 60 foot Armored Vehicle Launched Bridge (AVLB).

F. (U) AIR MOVEMENT

As in any airborne or airmobile operation one must know the ground operation plan in order to prepare the air movement table properly. In airmobile engineering, this is complicated by the added requirement to reassemble much of the equipment after the landing at the objective. This is further complicated by the condition of the landing zone which is likely to be unknown prior to D-day. Additionally, the wide variety of equipment combinations, weights, lift aircraft and possible flight routes create unique problems for the airmobile engineer. The most reliable solution for this type of operation was to employ enough dedicated aircraft to furnish the required number of sorties each day of the operation based upon the predicted flight route. Then the engineer can make changes in lift sequence as required. In the employment of airmobile engineer equipment, whether mechanical equipment, prefabricated bridging, culvert materials or Class II & IV materials, the two keys to success are the smooth lift out of equipment and proper positioning of this equipment at the LZ. As engineer equipment is lifted from the PZ, the lift helicopters will often take up the slack in the slings allowing the hook-up personnel to leave the area. Often the aircraft then descends slightly causing slack in the sling leg. The wash from the rotor many times blows the slings around the numerous vulnerable appendages on this type of equipment. This often results in the loss of steering wheels, exhaust stacks and aircleaners which are snapped off as the equipment is lifted. There was no equipment damage during the entire airmobile operation - a truly unique experience. At the LZ, equipment such as the front section of a road grader or a prefabricated bridge must be placed within two or three inches of the proper location if excessive jacking and prying is to be avoided. Generally, the heavy lift helicopter pilots were found to be noticeably more concerned about the placement of their cargo than the medium lift helicopter pilots, due in part to improved pilot visibility and the increased comfort afforded by the cover of gunships in the immediate area. Throughout the operation, additional aviation support including C&C and logistic aircraft are required to support the requirement for continual observation of the broad front upon which the airmobile engineer battalion normally operates.

G. (U) LOGISTICS

The diversified responsibilities of the numerous levels of logistic support of Operation LAMSON 719 coupled with the paucity of transporta-

assets created significant problems for engineers throughout the operation. The requirement to locate supplies at multiple locations by given dates met neither the guidelines laid out in the OPORD nor the declared changes published by "word of mouth" as the operation developed. On day D-5 the FSA was furnished the requirement to supply 6000 gallons of diesel fuel at Khe Sanh for Task Force 326 and 27th Engineer Battalion beginning on day D+5. Sufficient fuel was not available for the engineer equipment until day D+14. The insufficient fuel supply caused equipment to cease operations on two separate occasions. Additionally TO&E shortages and the nonavailability of additional construction equipment prior to the outset of the operation caused Task Force 326 to finish their portion of the operation at Khe Sanh on day D+17 with the same equipment they had on hand on day D-17.

H. (U) COMMUNICATIONS

From its inception, the airmobile division was intended to be deployed 40 kilometers or more over any type of terrain. To provide for continuous FM communications when conducting this type of deployment, a 32-channel airborne, automatic retransmission station in a C7A aircraft was designed to be deployed in a convenient location to provide airborne relay for essential communications with lead elements. A second, identical aircraft was equipped to provide redundancy and round-the-clock operation. Since this type of airborne relay station was not available, two FM voice relay stations had to be positioned and maintained by the 326th Engineer Battalion (Airmobile). Due to the low ceiling on D-day, positioning of the northernmost relay was not possible, thus necessitating the employment of an airborne relay in an OH-6A to insure timely receipt of repair parts for the unusual airmobile engineer equipment. The shortage of all types of communication equipment throughout the operation made it necessary to strip equipment from other elements in the battalion resulting in a general decrease in efficiency.

I. (U) SUMMARY

Prior to Operation LAMSON 719 the last sizable airmobile operation was conducted in 1969 during the construction of the Gerger airfield in the A Shau Valley. Since that time much of the airmobile expertise within the battalion had been lost. However, by conducting several small training operations this experience was rapidly recovered. Operation LAMSON 719 allowed the 101st Airborne Division (Airmobile) to test

these techniques while providing a worthwhile contribution to the ARVN operation in Laos.

ANNEX D

COMBAT INTERVIEWS

OPERATION LAMSON 719

This annex contains transcripts of two taped interviews with the Commanding Officer, 2d Squadron, 17th Cavalry. These interviews were conducted on 20 February and 6 March 1971

sec re the headquarters. All members of Binh Trams have gone through basic infantry training and are familiar with infantry tactics and weapons. Prior to the implementation of Operation LAMSON 719, XXIV Corps believed there were in excess of 42,000 enemy soldiers in the area of operation in Laos, 10,000 of the 42,000 being combat troops and the other 32,000 being support troops involved in the Binh Trams. As early as the first day we crossed the border there were indications of large infantry units, regiments and division forward elements in the area. It appears now that they are defending along the northern river which runs down to Tchepone as their secondary line of defense. The first line of defense seems to be along route 92 B and 92 C. Involved in these division elements that have moved forward seem to be the 308th NVA Division and the 304th NVA Division. There also have been movements from the south by the 812th NVA Regiment, and the 29th NVA Regiment, all concentrating on the ARVN units out in Laos. We had located five antiaircraft regiments at the time of going across the border, consisting of 200 enemy antiaircraft positions which included 23mm, 57mm, 37mm, and 100mm antiaircraft guns, but not the 12.7mm, and the 14.5mm weapons. We found that the information provided by the Air Force was valid. They had a good idea where the antiaircraft weapons were. We have found our biggest threat has not been from the 37mm or 23mm, but from the numerous 12.7 machine guns, which are located throughout the area of operations. I don't know how many 100mm's they have out there. The locations for most of the 12.7mm's were not available before we went in. However, we have found them to be employed around 37mm's for protection and all along the high ground along the roads, particularly just south of the DMZ and across the border into Laos, which obviously shows their interest on route 1032. The 308th has not been involved in operations against allied forces now in almost three years. They have been Hanoi's palace guard. They are extremely well-trained and a well-disciplined combat force. The 304th operated last year in Northern Military Region 1, primarily in the Da Krong River valley and the Khe Sanh plain area. Last year we contacted two battalions infiltrating into the area and actually neutralized their effective combat force. The 66th NVA Regiment infiltrated earlier in April and May. The 9th NVA Regiment infiltrated in July. The 66th has suffered heavy casualties also; however they left in September and October of last year, went back up and got resupplied and now there are indications that they are coming down to join

up with their sister regiment, 24 B, which has been out in Laos ever since last summer. This has been in reaction to the US being in the area. The 24 B Regiment never did come into Vietnam; they stayed out in Laos all year. I think they were just there to support the efforts in Laos, and they were just about the only infantry unit that seemed to be out in Laos just across the border. Now there are two other regiments of the 308th NVA Division. It appears that the complete 308th NVA Division will be in northern Laos, if it is not already, by the end of next week. So we have two units operating in Laos, both of them combat effective and well-respected enemy divisions. In addition to that, as I mentioned a few minutes ago, we have the 812th and the 29th from Military Region Tri-Tinh-Hue, moving from the south. We also have, out to the far west, the 2d NVA Division from lower Laos and Cambodia which moved up prior to the operation and now seems to be moving somewhat in our direction.

B. WEATHER

The weather should be in our favor. We are still under the influence of the NE monsoon with winds primarily coming from the NE, bringing low clouds and drizzle in eastern Quang Tri Province. However, here at Khe Sanh the weather is traditionally better, and should improve as we go further into Laos. This is one of the reasons why we are operating out of Khe Sanh. The weather will be better than if we station out of Quang Tri. We could have had our TOC and Air Cav troops back at Quang Tri, but there might have been days that we couldn't get out here. We couldn't start operating out in Laos until late in the afternoon, whereas here, if it is foggy it normally breaks up about 1000 or 1100 hours. Also refueling and rearming can be accomplished here and control of our Air Cav troops is better from this command location. That is why we have such a concentration of aircraft out here rather than at Quang Tri. However, we have maintained one troop back at Quang Tri just to disperse the aircraft.

C. TERRAIN

As far as the terrain goes, as we get further out into Laos, it is primarily high plateau region that slopes to the west. There is some rugged terrain in the NE corner of Laos as it meets the border of the DMZ. However, most of the terrain isn't as rugged as we are

used to working with down south, with the high mountain peaks, steep valleys and triple canopy. Most of the triple canopy is not present in Laos. They have double canopy and a lot of elephant grass in some areas. There is tripple canopy, but not as extensive as we are used to. What we want to describe is the fact that we went up against a sophisticated enemy in a base area over here where he was able to employ a good communication system with fine weapons, well-trained personnel and antiaircraft capabilities.

II. (C) OPERATIONS (Lieutenant Colonel Molinelli)

A SITUATION

The Forward Air Controllers have come up on the radio on several occasions and run us out of areas that we were working in and said, "It's just too bad--too hot in there." This is reported to be one of the heaviest antiaircraft areas in all Southeast Asia, heavier than anything that was known in the 2nd World War. Now what I'm really saying is that we all came up here with a lot of expectation-anticipation. We have always thought that the helicopter could survive in medium to high intensity warfare against sophisticated weapons, given air superiority and TAC air support, and I really think that we are proving that point in against those 12.7mm's 23mm's, 37mm's, and 57mm's which were not too bad in the southern part of the area of operation, but the portion up there in the northern area was reputed to be the worst in all of Southeast Asia and the heaviest fire of anyplace, including the anti-aircraft defenses around Hanoi. So what they saw after we stopped bombing up north was the movement of the antiaircraft units into Southern Vietnam and the southern portion of North Vietnam in the Tri border area which is were the ARVN Rangers are now. There are a lot of people who say the helicopter cannot survive that type of an environment but we are looking at people who have survived it and we have learned a lot of lessons in the first four or five days of working out there.

B. AIR CAVALRY TACTICS.

I would like to go back and discuss our losses isolating each one, and try to figure out what we could do and couldn't do, starting with day one. We received intense 12.7mm, 37mm, and 57mm

antiaircraft fire up there around the ARVN Rangers. We worked north of there the first day. We got a lot of aircraft hits, I don't have the totals--a lot, probably eight or ten that day. We lost a total of three aircraft that day. So let's stop and isolate each aircraft and see why we lost it. We lost one UH-1H, from a new troop which came up from the south, who was orbiting at 1700 feet indicated and the terrain was running 1100 to 1500. They just knocked him out of the sky, crashed, burned, two killed, two recovered. The two that were killed were hit with small arms fire before they crashed, they didn't even get out of the aircraft. That't a pilot error right there. He ought to know better than that. Now let's take the next one we lost, a LOH and a Cobra. The LOH was doing a recon at treetop level, most all day, and was getting along fine and the Cobras were taking a beating from the antiaircraft fire and shrapnel hits. No direct hits from 37mm's or 57mm's. The LOH was going down a ridge at treetop level, which is what he is supposed to do, pulled off to the side of the ridge, slowed up and looked back to see what was back up under there. He was knocked down with small arms fire and 12.7mm's. He knows better than that, this is a pilot error. We had to get that crew out. A Cobra went to recover him and he was shot down the same way, except he knew he was going against it and they knocked him down. The other Cobra out of the team went in right where the LOH was flying, slammed on the brakes and dropped down and picked up the LOH crew. They rode out on the rocket pods. The UH-1H that was out there went in low level like the LOH pilot was flying. He got in, extracted the Cobra crew, and took a few hits coming out. He had them on a 60 or 100 foot rope, with a McGuire Rig. He was in there about twenty minutes and survived. They couldn't hit him because he was down in a hole. As we look at those three losses we see they are the results of pilot errors. You don't tell a pilot this when you are talking to him about his tactics, but they are really pilot errors. Something we know better now. We did get some sharapnel damage from the 57mm, but we had no direct hits with the 37mm's or the 23mm's. We got quite a few hits with the 12.7mm's and small arms. Altitudes: one

[redacted]

flying high, one flying low, and one flying in between, everybody had their own thing and had to figure out how to do it, but they survived. Next I lost two Cobras in the Tri border area, just a thousand meters into Vietnam. They were knocked down with 12.7mm fire on a visual reconnaissance. We sent them up there to find a regiment and they found the regiment. To determine size and location of the enemy unit they had to go in close which resulted in them drawing intense fire. One of them got hit, and went in with no survivors. He crashed into the side of a hill. We put a lot of air on it, and worked the area over. While we were waiting for more TAC air, we went in to take a quick BDA. The LOH took fire, the Cobra rolled in and they hit him. He caught fire, coasted in and we extracted the crew. Actually this was a normal recon mission. We were up against normal antiaircraft guns. We lost another LOH that was hit looking for the headquarters of the antiaircraft regiment or what ever it is out there. He was hit and blew up in the air. It easily could have been a large caliber weapon from the altitude that we were flying. This information came from the troop commander's reports. We really think it was an RPG. We lost one other Cobra that was hit and crashed from 12.7mm fire. That's really a normal operation, and doesn't really differ from what we're experiencing in Vietnam in a low intensity environment. The thing that is significant is that we were flying in a high risk area with high antiaircraft weapons that you would think would run you out. None of these losses were by 37mm's or 57mm's.

C. ENGAGING ARMOR WITH THE ARMED HELICOPTER

We have recently run into armor out there. We have engaged PT 76's and Soviet armored personnel carriers on a number of occasions. Our criteria for destruction are to break it apart or burn it or we can't call it destroyed. We have damaged armored personnel carriers and about three other PT-76's that we have engaged. These PT 76's were active. All but one of them was moving, and they were employing their organic weapons systems. They were also protected by a crossfire of 37mm's and 12.7mm's on a ridge. We were flying low, the 37mm's didn't have any impact on the battle, but the 12.7mm's made it very difficult to get in there and engage. We still didn't have our high explosive anti-tank rockets. We damaged them and blew chunks off them. We claimed destruction for one or two. Then, feeling pretty good and thinking we were getting wise, I had information

about another armored unit on Route 9 further on to the west toward Tchepone, so I sent the 7/17th Cav out in the direction to see if they could engage this armored unit. They did find one tank, and incidentally when they moved in that direction they moved back into the high intensity antiaircraft area. They engaged the tank with convential weapons. I don't believe they even had a 20mm with them. They blew big chunks off it, and stopped it dead in its tracks. They were taking fire from it and when they got through with it they were not taking fire; it was stopped dead. They actually saw pieces of it break off and go flying through the air. We brought them back here and debriefed them. I told them that we expected to find PT 76's. When we debriefed the pilots they began to talk about the drums mounted on the outside. I was sure that we had given them the wrong information and I got them to find the picture of the tank in our Soviet handbook. It turned out to be a Soviet T34. I figured it was when they said they saw drums on the side. To my knowledge that's the first engagement with a helicopter against enemy armor in combat. With conventional weapons we have either damaged or destroyed every one we have found and haven't lost an aircraft in doing so. It is very significant that we destroy them with the Cobra which is an extremely unsophisticated weapon compared to something like the Cheyenne with a TOW missile with stability systems and an outstanding firing platform. I think this has application all over Europe. The fact that we can engage armor and stop it. We take hits going out there and getting back, but we have yet to lose an aircraft to an enemy tank and we have stopped the tanks. That is the part that we need to expound upon.

D. COORDINATION AND COOPERATION---

TAC AIR AND ATTACK HELICOPTERS

Also, there is a controversy between the attack helicopter or air weapons platform and TAC air. I think it will go on. One point that I think is very significant is that the TAC air pilot cannot acquire targets visually where the helicopter can, except for fleeting or soft targets. The helicopter, at least the Cobra, does

not carry sufficient ordnance to defeat many hard targets and has to have help. We have of course, the controversy over the fixed wing, which would by its very nature, be similar to the aircraft that are out there and that is not really what we need. We need attack helicopter weapons platforms to go out and see for the FAC. The helicopter takes up that space of ground that the infantry unit commander controls with the point of a rifle, out to that ground where the FAC can put in TAC air. You've got to be cognizant of minimum safe distance of bombs. You can get TAC air in just so close. If you talk to the FACS around here, there is nothing they would rather work with than the Cav because the Cav gets out, spots their targets, marks them, and goes on to the next target. In a recon role, your best bet is Cav or a similar type organization with helicopters and a FAC with a set of fighters. It's the greatest game in the world. You just fly along, find a target, mark it perfectly, let the Air Force hit it. You go in and tell the FAC what he got and you go to the next one, or you go on to the next target, and then come back and tell him what he got afterwards. This is something that ought to be expounded upon. It is something we ought to look into. It's a coordinated use of your recon assets with a FAC and TAC air.

E. THE COMMAND AND CONTROL HELICOPTER

The other thing I want to make sure gets down is the Command and Control Aircraft with your recon unit. The Command and Control aircraft has three FM's, two VHF's and a UHF, and he carries an artillery liaison officer with him. When we get out there, we're tied into the Air Force or troops we're working with, the unit on the ground, and the artillery on FM. I'm tied into the FAC on VHF or UHF or sometimes both. Sometimes I talk directly to the TAC air that's coming in. I say, "Hey buddy, you're short, long, left, right, get it up, down, you're getting fire, make your breaks the other direction." This command and control element permits us to simultaneously talk to the ground troops, be responsive, employ the artillery, employ gunships, and employ TAC air, all on the same target at the same time. That's something that's hard to learn. You have to get the FAC confident of your ability to employ the artillery. Once he knows it's you, the team can pour the artillery in there, determine which was to come in and go out, or recommend which way to come in or out with the TAC air. You can swing the ARA or the gunships in, whichever way you want it to go. You can employ all your Cav, your ARA, your gunships, and your

TAC air all on the same target at the same time. That's the ultimate desire. To bring massive firepower in on the target, and it is really something we have to expand upon and get down on paper. This has been our secret here, because we don't carry that much fire power. We account for half the kills around here in the division and everyplace. We get half of the total kills anytime and these are only confirmed kills. For instance, one time we engaged the 9th Regiment in the Khe Sanh plains area and confirmed 139 kills. The ARVN's walked through the area a couple of days later and confirmed 432 killed by helicopter. We could only see 139 bodies. This coordinated use of all our firepower of all the firepower that's available, run by one man that is still being responsive to the man on the ground--that's what makes money.

COMBAT INTERVIEW REPORTS
OPERATION LAMSON 719

SECOND INTERVIEW

The following document is a transcribed copy of a taped interview with LTC Molinelli, the Commanding Officer of the 2d Squadron (Airmobile), 17th Cavalry recorded at Camp Eagle 6 March 1971.

Since we talked last time we have seen two armored columns: one of six tanks and one of eight tanks. One of them had troops with the tanks, and both were protected by antiaircraft weapons. We engaged the tanks with gunships to temporarily stop them and then turned the target over to the TAC air. It took between two and three hours to totally stop the column; however, they didn't get very far from the initial point of sighting, and each tank was immobilized when TAC air completed the mission. Our rule for damage is to blow chunks off of it. For destruction credit, the vehic must be blown up or burn. Where we did not report the tanks that we engaged as destroyed we should have made some reference to the fact that they were immobilized. In view of this, we have back tracked and tried to debrief the pilots concerning what they saw, and what they did. I think it is significant to note that our criteria are strict so that we retain credibility as a good intelligence source. The other morning the Air Force engaged eight tanks, and reported eight tanks destroyed. I believe they used the criteria that since they stopped the tanks they destroyed them. A VR by the FAC and a VR by the Cavalry did not reveal destroyed tanks along the road. As a matter of fact, there were none. So now we have a report that lists the Air Force destroying 60 or 80 tanks, and in all cases we do not have the hulls to substantiate this. There's obviously a discrepancy in the criteria for damage or destruction between the services. I think we should all use the same criteria. Allegedly we have had some contact with ground to air missiles since the 15 or 16 November 1970. We are of course, aware of the RPG's and we have lost aircraft to the RPG's, but this weapon does not really fall into the ground to air category. On 15 or 16 November our pilots reported receiving five interceptors. The fire was not an RPG. It had a red smoke trail and left a definite trail in the sky which an RPG does not. It showed no fragmentation of the warhead when it

exploded. The explosion was not anywhere near that of an RPG. It was fired at the OH-6A's in the Rao La River Valley in extremely poor weather. It exploded to the left and rear in most cases. We debriefed the pilots and sent in reports. Since that time we've had other incidents, and some battle damage where we have salvaged pieces of fragments and pieces of the aircraft that were hit and sent them to USARV for evaluation. In Laos we have had several reports of ground to air missiles. One of them was a very large ground to air missile. The pilot reported it looked like a 500-pound bomb going the wrong way. Then a better debriefing of it gave us a 2 1/2 foot missile about 6-8 inches in diameter. We have had other reports of essentially the same thing being fired at aircraft. We have had the missiles inside Laos. We also have had a large number of airbursts in Laos and reports from pilots of being tracked or at least receiving beeping noises on their FM. They assumed they were being tracked by radar and shortly thereafter did receive an airburst. None of the missiles nor radar-directed guns have been significant in our combat. They don't provide that great a threat. We have received some shrapnel damage from airbursts going off around the aircraft, but they don't seem to get the range very well. They usually go beyond us and explode.

Let's look for a minute at the fire bases we have lost. We lost them because we were not able to resupply or there was inadequate ammunition storage on the fire base. Fire Base 30 received a direct hit on the ammunition and the rest of the base just exploded and burned all day. Lesson: the ammunition wasn't underground (not all of it by any means). At the 21st Ranger Battalion fire base again we could not resupply and they had a number of wounded. We, in fact, just couldn't get to it. They were surrounded, but not overrun. Of the four fire bases we lost only one was overrun. That was overrun by armored vehicles during a heavy rainstorm when we couldn't get in to work on them. ARA is just about committed 100 per cent of the time for the troop lifts going into and out of the LZ's and escort of CH-47's, and all contact missions. We have used very little ARA since we've been up here. We could use ARA total capability every day all to ourselves, but it has't been available because they've been working so hard with the Group on the contact missions. The question arises whether their role as GSR to 108th Group is correct. They're general support reinforcing to the fire of 108th Group. Theoretically if you want ARA you call the Group. For instance, if the ARVN have a

contact mission they call the Cavalry. We pass the message immediately to ARA. If Group is going to make a lift they call directly to ARA. If we need ARA we call directly to them. Also, it's been recommended, or at least has been considered, to have ARA attached to the Cavalry or some closer relationship with it. This would make ARA more responsive to our needs, but probably less responsive to the Aviation Group. Response to ARVN would also be increased. I don't concur with this because if you do that with the ARA then you put the Cav in a direct fire support role, which is not their role. I think we can see from the days that we were pulled off our primary mission of reconnaissance to provide support for the fire bases that we jeopardized the total reconnaissance effort. A good example is the day the ARVN were surprised by the tanks that overran Fire Base 31. We spotted them 3 kilometers in a straight line distance from the fire base six kilometers driving. They had to go down, turn around, and come back up. I believe the proper role of the Cav is reconnaissance of the area. We would have caught them 10 to 12 kilometers away from the fire base and would have had a lot more time to engage them and stop the column. I believe it could have been done, but at that particular time we were given instructions to stay with the friendly troops. We were trying to move our own armor column up there which failed to move for two or three days. Providing them cover resulted in our losing the reconnaissance capability to pick up those tanks a long way out, and stopping them with helicopters and Air Force aircraft. Weather also hurt badly in reference to those tanks.

Let us discuss the role of the gunships in the aviation battalion, which has 12 AH-1G's. One company in each battalion is an armed helicopter company. This company escorts the UH-1H's all day from the time they take off to wherever they go, until they return. They probably fly more hours on their Cobras than any other armed aircraft unit in the division, and yet they report less productive efforts than anybody else. I question whether we need to escort our UH-1H's like that. I believe the armed helicopter should be used in an escort role only where it is really required. This is normally the last five to six kilometers from the LZ when a UH-1H begins to descend into range of the smaller weapons like the 12.7mm and 23mm fire. I believe the AH-1G's in the gun companies could be used more productively if they were pooled, and could be used for direct fire support for the ARVN and still provide the escort for those aircraft in those critical areas where they need escort. I take my UH-1H's into and out of an LZ. After that they are on their own. I know where they are, and when I expect them

to receive fire. I do the same thing with my UH-1H's if I'm going to put the HAC BAO Company (Black Panther Company of the 1st ARVN Inf Div) down out there to recover a downed aircraft. I launch the UH-1H's and tell them to report to such and such a point on such and such a heading. I then pick them up from that point, and escort them into the LZ. Once I get them out of the LZ and back up to altitude I send them on home without escort. I can't afford to escort. I wonder if we really can in the aviation battalions. Another point that should be stressed is the number of aircraft lost up there and the type of damage sustained. Let's go back and look at it and be honest about where and why the damage was sustained. A large number of our aircraft that are destroyed (I would estimate between 30-40 per cent of our UH-1H losses and Hook losses) are lost in the LZ's to small arms and mortar fire. An aircraft will receive fragments from a mortar or indirect fire attack, and land on the fire base for precautionary reasons. Sooner or later the thing will be destroyed. We report this as destroyed aircraft. People think that they were knocked out of the sky with high or mid-intensity antiaircraft fire. We are not really taking the time to be exact. We must take that time to be exact and say what we have lost to antiaircraft fire, and what we have lost in the LZ to small arms fire. We should separate the destroyed aircraft into antiaircraft fire, small arms fire, and indirect fire on the LZ.

Going into the LZ the door gunners fire into what they call a "hot LZ." This is all right for the first aircraft, but the rest should not fire once they get close to the LZ. They should wait until they come out of the LZ. Depending on the size of the LZ, the door gunner should stop firing some 300 or 400 meters out and shouldn't fire again until he is out of the LZ where he won't get his fire in the wrong area. The door gunners have put a lot of fire in an LZ. The first aircraft usually fires all the way into the LZ. We usually tell him whether or not he can. The remaining aircraft must cease fire on short final and not fire again until they come out. When they enter the LZ and receive fire they get misoriented, excited, and don't hear or see well. You must listen to know where the fire is coming from. You must know what type of fire is coming at you. A lot of times we put people into an LZ, even when we expect it to be hot, giving them fire for fire only because we want to know what is in that LZ. The pilot and crew chiefs must hear the fire and where it is located. They should be able to say, "receiving small arms at 8 o'clock at 200 meters," and then fire so as not to produce friendly casualties.

We have had problems communicating with the ARVN on the ground without US advisors. In an established perimeter or fire base they do have somebody on the radio who can speak English. He will normally be on the net, but not always. In a hot LZ we mostly have no communications because the one individual who does speak English has a lot of things to do and they talk to their own commander in Vietnamese. So we have a definite loss of time there before a significant area for fire support is directed. They need support but where are they? [illegible] if they can put smoke out. They say, "no, because they'll see us." Sometimes 15-30 minutes go by before we are able to give direct fire support. There is a distinct loss, without the ability to talk to the man immediately.

To whom is the Cavalry responsible? Before we crossed the border the Cavalry was in general support of Corps and in direct support of 1st Brigade, 5th InfantryDivision (Mech). At the termination of Phase I we returned to the operational control of Corps. We crossed the border with 4 troops-one remaining here at Eagle. At the time we went across the border we were back in the general support of Corps role. XXIV Corps is physically located at Quang Tri. I just went over to see General Lam everyday and said, "here is what we can do and here is what we ought to do." He would state his priority and that is what he got. [illegible] support of XXIV Corps means that we do whatever General Lam [illegible] deems necessary. We always recommend to him where we think the Cav ought to be employed. ARVN have a reasonable understanding of employment of Cavalry. The problems we run into with the ARVN is that we worked very closely with the 1st ARVN Infantry Division and they have an image there that is good for relations but sometimes difficult for operations. When they make contact they want the Cavalry. We are there but preferably on the fringes. We call for ARA, artillery and TAC air to give them that direct support. We continue to do our job in reconnaissance. I think the 1st ARVN Infantry Division understands this fairly well. General Lam understood, at least after we got started, that we should not be tied to protecting units. He understood certainly after Fire Base 31. Some of the ARVN unit commanders did understand the Cavalry very well at first but understand it much better now. At first they looked at the Cavalry because of the way they worked with it in the south. The Cavalry was in the direct fire support role. There are other aircraft for the direct fire support role. That leaves the Cavalry for reconnaissance. I saw in eight days a change up there in the minds of the unit commanders as accepting the reconnaissance [illegible]