**UNCLASSIFIED**

<table>
<thead>
<tr>
<th>AD NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD387608</td>
</tr>
</tbody>
</table>

**CLASSIFICATION CHANGES**

<table>
<thead>
<tr>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>unclassified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>confidential</td>
</tr>
</tbody>
</table>

**LIMITATION CHANGES**

<table>
<thead>
<tr>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved for public release, distribution unlimited</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlling DoD Organization: Assistant Chief of Staff for Force Development [Army], Washington, DC 20310.</td>
</tr>
</tbody>
</table>

**AUTHORITY**

31 Aug 1978 per DoDD 5200.10 document marking; Adjutant General’s Office [Army] ltr dtd 29 Apr 1980

**THIS PAGE IS UNCLASSIFIED**
SECURITY
MARKING

The classified or limited status of this report applies to each page, unless otherwise marked. Separate page printouts MUST be marked accordingly.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18, U.S.C., SECTIONS 793 AND 794. THE TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U.S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.
THIS REPORT HAS BEEN DELIMITED AND CLEARED FOR PUBLIC RELEASE UNDER DOD DIRECTIVE 5200.20 AND NO RESTRICTIONS ARE IMPOSED UPON ITS USE AND DISCLOSURE.

DISTRIBUTION STATEMENT A
APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED.
SUBJECT: Combat Action Report - Lessons Learned, HQ, Operation Pickett, 1st Brigade, 101st Airborne Division

TO: SEE DISTRIBUTION

1. Forwarded as inclosure is a Combat After Action Report, Operation Pickett, 1st Brigade, 101st Airborne Division (6 December 1966 through 19 January 1967). Information contained in this report should be reviewed and evaluated by CDC in accordance with paragraph 6f of AR 1-19 and by CONARC in accordance with paragraph 6c and d of AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to the Commandants of the Service Schools to insure appropriate benefits in the future from lessons learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

DISTRIBUTION:
Commanding General
US Army Combat Development Command
US Continental Army Command
Commandants
US Army Command and General Staff College
US Army War College
US Army Air Defense School
US Army Artillery and Missile School
US Army Armor School
US Army Chemical Corps School
US Army Engineer School
US Army Military Police School
US Army Infantry School
US Army Intelligence School
US Army Medical Field Service School
US Army Ordnance School

CONFIDENTIAL
CONFIDENTIAL

DISTRIBUTION (Cont'd)
US Army Quartermaster School
US Army Security Agency School
US Army Signal School
US Army Transportation School
US Army Special Warfare School
US Army Civil Affairs School

Copies furnished:
Assistant Chief of Staff for Force Development
Research Analysis Corporation
Security Office
Los Alamos Scientific Laboratory
Office of the Director of Defense Research and Engineering
CONFIDENTIAL

DEPARTMENT OF THE ARMY
HEADQUARTERS 1ST BRIGADE 101ST AIRBORNE DIVISION
APO 96247

AVN-0

15 February 1967

SUBJECT: Combat Operations After Action Report, Operation PICKETT (L33; MAC; 03-02) (L)

TO: Commanding General
I Field Force Vietnam
APO 96240

FROM: Commanding General
II Field Force Vietnam
APO 96240

1. (U) Note of Operation: Operation PICKETT.


3. (U) Location: KOTUM Province.


5. (U) Reporting Officer: Brigadier General S.F. Matheson, Commanding General, 1st Brigade, 101st Airborne Division.

6. (C) Task Organization: The task organization of the Brigade for Operation PICKETT is shown below.

   Task Organization
   1/327 Infi
   1 pl 2/326 Engr
   2/327 Infi
   1 pl 2/326 Engr
   2/322 Infi
   1 pl 2/326 Engr
   2/326 Arty
   3D/30 Arty
   Set Bn FOS

   Bde Troops
   Bsh 150 (-)
   A2/17 Cav
   2/326 Engr (-)
   LRP
   NF Plt (-)
   4th Inf Plt, Sot Dog
   20th Cdo Det
   3/101 Avn Sec, HB-1
   245 Fxd Ops Co
   Tac Air Control Party
   406 RRD
   1/18, 1st Civil Affairs
   2 SQds, 272 FP Co.

7. (C) Supporting Forces:
   a. 2/320 Arty: Employed in a direct support role.
   b. 3D/30 Arty (OPCON): Provided general support (reinforcing) fires during the operation.
   c. 10th Arm Avn Bn: Provided two light air mobile companies in
15 February 1967

mid:

- General support. These helicopters flew troop lift, combat support and resupply missions.
- 179th and 180th Assault Support Helicopter Companies: Provided four flyable CH-47 aircraft on a mission support basis for use in displacing and resupplying artillery units.
- 183d Avn Co: Provided four O-1 aircraft for visual reconnaissance, artillery adjustment and radio relay.
- 1st Cav Div (AVN): Provided one flyable CH-54 on a mission support basis for use in displacing B-1/20 artillery.
- 173d Air Command Squadron: Provided airlift support for psywar operations.
- 7th US Air Force: Flew a total of 199 C-130 sorties in transporting the Brigade from TUY HO to KONTUM. For the tactical operation 111 tactical fighter sorties were flown; of these 76 were air strikes and 35 were reconnaissance missions. The FAC'S flew 230 sorties in forward air control/artillery fire reconnaissance missions. To support the Brigade's airborne training 50 C-130 sorties were flown while 190 C-130 and OV-2 sorties provided logistical support in bringing 544 tons of cargo into the area.
- 299th Engr Bn: Provided general engineering support to the Brigade; maintained highways in the area; maintained airstrip at KONTUM; and provided a water point vicinity KOLEI KLEIG.
- 555th SAR/Para-Military Support:
  1. 224th Arm Infantry Regiment: Provided one bn on a continual basis by rotating units into the area of operation for search and destroy missions.
  2. 219th Special Tactical Zone: Provided two scout companies, two recon platoons and one intelligence platoon for search and destroy and screening missions at various times during Operation PICKETT.
  3. RF/PF Forces: Provided five RF companies, one RF engineer company, one Mechanized PF company and two PF platoons for search and destroy, screening, and security missions at various times during Operation PICKETT.
  4. TF-2, 5th Special Forces Group KONTUM: Provided two companies from the Black Eagle CIDG Battalion for search and security missions.
  5. CIDG Forces: CIDG companies were provided from DAK TO, MANG BUK, PLATEAU DI, DAI PEI, KOLEI KLEIG, and PLEI KLEIG. These companies conducted search and destroy, screening and security missions in support of the Brigade.
- Intelligence: See Enclosure 1, Intelligence.

9. (C) Mission: Headquarters I Field Force Vietnam directed the 1st Brigade, 101st Airborne Division to move by air from TUY HO to KONTUM and conduct search and destroy operations adjacent to the CAMBODIAN border in the PICKETT area of operation. During the Christmas truce the mission was slightly altered and the Brigade was subsequently deployed in an expanded PICKETT area of operation to the north and east of KONTUM city. Concurrent with the tactical operations the Brigade was to conduct airborne refresher training.
CONFIDENTIAL

SUBJECT: Combat Operation After Action Report, Operation PICKETT, (RCV) DWN C-32) (U)

10. (C) Concept of Operations: The initial concept of PICKETT called for a rapid air move from TUY ND to KCTUN. Upon closing KCTUN the Brigade was to deploy into the assigned area with four battalions and supporting forces; maintain this third battalion as the Brigade Immediate Action Force. Upon the decision to use the brigade clandestinely entered the assigned area and proceeded with operation with two battalions conducting night airborne infiltrations. The two maneuver battalions with supporting forces conducted search and destroy operations utilizing semi-guerrilla tactics. The third maneuver battalion conducted airborne training and assumed the mission of Brigade Immediate Action Force. An airborne training program was established and all brigade units were rotated through the cycle.

11. (C) Execution:

a. Operation PICKETT was conducted in three phases: the air move from TUY ND to KCTUN; the search and destroy operation adjacent to the UNBIDIAN border and the offensive operations in the BAYOC Valley north and east of KCTUN City. Airborne refresher training was conducted concurrently with Phase I of the tactical operation. Contact was relatively light throughout the operation with the predominance of contacts being made with relatively small enemy units. Army and para-military forces in the area greatly supplemented the maneuver units of the Brigade permitting greater coverage of the area of operation. The Brigade made extensive use of aviation assets to include a two battalion night airborne infiltration and displacements of the supporting 155mm artillery battery, B/30 Art'y, by CH-54 flying crane. The Brigade continued to refine and employ semi-guerrilla tactics which are characterized by the use of stealth, deception, and surprise until contact with the enemy is made. Once contact is made, the guise of the guerrilla is lifted and all available firepower and reaction forces are utilized conventionally to capture or destroy the enemy force. The terrain in the area of operation included dense jungle, rugged mountains, rolling hills, and swift mountain streams and rivers. High winds and air turbulence delayed several airborne operations.

b. Operation PICKETT was initiated on 6 December 1966, two days after the termination of Operation CERVOCA II. The operation commenced with an air move by C-130 aircraft from TUY ND to KCTUN.

c. Phase I: The brigade units were marshalling in their respective trains area vicinity TUY ND South and TUY ND North airfields at the beginning of Operation PICKETT. The air move commenced 060630CH December 1966 from TUY ND South Airfield with the units departing in the following order: 1/327 Infantry, 2/320 Artillery, 2/327 Infantry, 2/502 Infantry, 2/27 Cavalry Troop. Elements of Brigade Headquarters and A Company 326 Engineers were intermixed throughout the airstream. The entire brigade air movement consisted of 199 C-130 sorties and was completed in 19 hours. This move compared most favorably with the seven previous moves the Brigade had made in 1966 with an average of 7 days per move. Several factors contributed to the rapidity with which the move was made. The CG, 63th Air Wing, placed command emphasis on the move and established a 24 hour airstream. The Brigade's airlift requirement was reduced by allowing only mission essential equipment be taken into the airstream; the remaining equipment, personal belongings, and vehicles were conveyed to PHUK RAPID Base Camp. The Brigade's turn-in of excess TOE equipment further reduced the airlift requirement with all of the above factors resulting in a total lift requirement of some 60-70 C-130 sorties less than previous moves.

d. Phase II: The second phase of Operation PICKETT began on 9 December with 1/327 Infantry and 2/327 Infantry conducting airborne assaults in LZ's LEBE and LADZ respectively. Due to the dense vegetation in the area and the complete lack of suitable LZ's a considerable amount of clearing had to be accomplished. (See Enclosure 9, Engineer Operations). Supporting
artillery was lifted by CH-47 and CH-54 helicopters into LZ NO. 9. This was
the first instance of the Brigade displacing the 155mm howitzer battery by
air. The CH-54 flying crane was required to accomplish this task. On 17
December 1/327 Infantry discovered a cache of 50 small arms and miscellaneous
equipment. 3/452 ARVN Infantry joined the operation conducting an airborne
assault into LZ SHERIDAN and conducted search and destroy operations to the
south. On 12 December a CIDG company from PICETT joined the 2/327
Infantry in offensive operations adjacent to the CERME Зна border. 2/42
ARVN Infantry (-) conducted an airborne assault into the northeast corner of
the area of operations and commenced search and destroy operations in zone.
On 13 December 2/502 Infantry with a CIDG company from POLIT KIEO in direct
support conducted an airborne assault into LZ SHERIDAN. The commitment
of the 2/502 Infantry brought the total forces taking part in Operation
PICETT to three organic Infantry battalions and supporting artillery, one
ARVN battalion to one ARVN battalion (-), two companies of the CIDG
Battalion, and four CIDG companies. (See Enclosure 2, Tab 2). Offensive
operations continued in zone with relatively light contact. All units were
deliberate, methodical and thorough in the search of primary, secondary, and
tertiary trails, paths and stream beds. A complete trail study of the area
was initiated and data collected by the Brigade SF for future reference. On
16 December two organic battalions were reoriented in the area of operation
with the 1/327 Infantry, followed by the 2/502 Infantry, conducting airborne
assaults into LZ SHERIDAN and attacking to the south (See Enclosure 2, Tab 2).
On 21 December 1/327 Infantry located a Montagnard village with a population
of 122. Of the 122 people, 16 were identified as VC. The remainder
indicated they were tired of working for the VC and desired to return to GVN
control. Helicopters were provided and the people were airlifted along with
their personal belongings to KONTU. On 28 December extraction of Brigade
units from the area of operation was completed and defensive patrols were
established vicinity KONTU Airfield complex for the Christmas truce period.
ARVN and para-military forces in direct support of the Brigade during Phase II
of Operation PICETT furnished the equivalent in troop strength of three maneuver
battalions.

Phase III: The third phase of Operation PICETT commenced in the
expanded area of operation on 27 December at the close of the Christmas
truce. A two battalion night airborne infiltration into the DAK TAN Valley
was conducted by 1/327 Infantry and 2/502 Infantry. The committed forces
maintained a clandestine posture utilizing semi-guerrilla tactics. Search
and destroy operations in zone encountered light contact with VC, as well as
NVA forces. Numerous sophisticated base camps and training areas were dis-
covered. Some of the huts had opening and closing windows, water systems
with bamboo pipes and lattires. The enemy had a well established trail
watching system with well trained and disciplined troops. Stocky traps were
extensively used by the enemy and accounted for a large portion of friendly
casualties. On 30 December 1/327 Infantry engaged an NVA force near an enemy
campsite resulting in one NVA KIA and capturing one 30 cal MG, 3 SKS rifles,
5 Mauser rifles, 16 Chicen grenades, 136 quarter-pound blocks of TNT and
miscellaneous equipment and ammunition. Later the same day 1/327 Infantry
discovered 21 NVA that were killed the previous day with artillery and small
arm fire in a counterambush attack. 42/42 Cavalry terminated a three day
operation clearing Highway 5B northeast of KONTU. The operation had been
conducted with five RF Infantry companies and one RF Engineer company in
direct support. On 2 January 1/327 Infantry returned to the KONTU Airfield
area to commence the mission of Brigade Radnate Action Team periodic air-
borne refresher training. 2/327 Infantry, having completed airborne train-
ing, conducted an airborne assault into the area of operation vacated by
1/327 Infantry. Search and destroy operations continued in zone with relatively
light contact. Enemy campsites and training facilities discovered in the DAK
TAN Valley indicated the area was a major training and stop-over site for
infiltrating NVA units. On 9 January 1/327 Infantry conducted an airborne
assault into the area of operation killing two NVA and capturing 5 SKS rifles and 2 Coalition grenades in the vicinity of the I2. On 11 January friendly artillery wounded 9 troopers of the 1/327 Infantry. The accident was investigated and the cause was found to be due to the use of high angle fire being extremely affected by high winds prevalent in the DMZ AO area. Throughout Phase II the enemy avoided contact when possible utilizing to the maximum the elaborate system of trail watchers (See, Inclosure 2, Tab C for schematic of Phase II). On 19 January extraction of the Brigade's organic and supporting units was completed and at 2400 hours the operation terminated.

12. (C) Results:

a. The 1st Brigade, 101st Airborne Division accomplished its mission of searching, contact, and destroy operations to locate and destroy VC and NVA forces in the DMZ area of operation and of conducting airborne refresher training for all organic units of the Brigade.

b. The following losses were inflicted on the enemy during the operation: 51 VC/VA KIA, 16 VC/VA WIA (EST), 3 NVA, 15 VC/VA, 11 detainees, and 4 riflemen. In addition, 109 individual and crew served weapons, 226 grenades, 160.6 pounds of TNT, 50.9 tons of rice, ammunition and other equipment were captured.

c. Friendly losses during the operation were as follows: 23 KIA and 104 WIA.

13. (U) Administrative Matters:


b. Logistics: See Inclosure 4, Logistics.

c. Civic action: See Inclosure 6, Civic Affairs.

14. (C) Special Equipment and Techniques:

a. In order to effectively employ CS agents and flamethrowers, airmobile teams were made available at Brigade level on a thirty minute "on call" basis.

b. Water bladders (1 gal capacity) were dropped from helicopters for emergency proximity of water and proved extremely effective.

c. The Project Personnel Protector and the Anti-Intrusion device were evaluated during a portion of the operation. Initial reaction is being noted between units, but further testing is needed before the Brigade can order a corporate evaluation.

15. (C) Summary of Incidents/Lessons Learned:

a. Comparison of Operation PICKETT with previous operations regarding location of the enemy led to several conclusions:

   (1) The enemy continues to live in draws and heavily vegetated terrain that are usually near a high speed trail with many smaller trails nearby.

   (2) His living areas have easy access to water, but in areas where presence of water is not always indicated on the map. The larger living areas usually have smaller camp sites on the routes of approach.
CONFIDENTIAL

AIC-5C

SUBJECT: Combat Operation After Action Report, Operation PICKET, (RN: J-332) (U)

(3) After initial contact, the enemy generally disperses and avoids the living areas during daylight hours.

(4) It has been noted in the KOTH area, the enemy quite often digs in on the military crest of the hill with a high speed escape route closely. The escape route does not run to the rear of his position, but invariably to the flanks.

(5) During Operation PICKET enemy positions were generally oriented toward the mouths of the valleys and invariably along natural flow lines, i.e., trails, ravines and streambeds.

b. Several important points were brought to light regarding the friendly defensive posture during Operation PICKET.

(1) The use of enemy prepared positions, while saving time and labor, is basically dangerous because the enemy is completely familiar with the terrain.

(2) Poncho shelters reflect enough light to betray the positions and outline the defensive perimeter and can be seen from a great distance.

(3) Emplacement in an area cleared of trees and vegetation by artillery fire and airstrikes is dangerous because of the lack of concealment afforded the US troops. The enemy is given concealment by the trees that have been blown down on the perimeter.

(4) Trip flares are easily set off during high winds and cannot be relied on to expose the approaching enemy. In very few cases have trip flares actually alerted an element against the enemy's approach.

(5) When a friendly element re-enters a defensive perimeter the enemy will follow if possible.

(6) The construction of and use of dummy foxholes proved effective in deceiving the enemy as to the true location of a perimeter. On one occasion several grenades were thrown into the vicinity of dummy foxholes. Had it been the actual emplacement, casualties would undoubtedly have resulted.

(7) Camouflaging foxholes makes them extremely difficult for the enemy to find at night even though during daylight hours they may be recognizable.

c. When using white phosphorous or trip flares, consideration should be given to wind direction and to the possibility of fires.

d. White Phosphorous munitions proved very effective for locating positions in the jungle during daylight as well as at night.

e. Fire discipline and use of grenades in response to enemy probes proved useful in deceiving him as to the location of the perimeter.

f. The following observations were made from emplacing one or more battalions on one LB during an amphibious assault:

(1) The amount of terrain initially covered is small.

(2) Enemy observation is able to determine more exactly the personnel and equipment being brought into the LDB.

(3) This entry necessitates the movement of the elements on multiple axes, which pushes the enemy instead of blocking or containing him.
CONFIDENTIAL

Subject: Combat Operation After Action Report, Operation PICFETT, (RCS: MACV J3-32) (U)

1. The M-79, shotgun round may be less dispersion than was generally believed.

(1) One unit reported that the shot pattern for the M-79 rounds tested remained concentrated in a tight area until the pellets slowed to below lethal velocity. Further, for the ammunition tested maximum dispersion at one hundred meters in an apparently normal pattern can be confined to an area seven inches by two inches vertically. At lesser ranges the shot area is considerably reduced.

(2) A technique was developed to reduce the lack of dispersion by deliberately firing the round into the ground so the ricochet would cause the dispersion pattern to fan in a 15 degree zone.

h. When descending Chinook ladders heavy packs and equipment must be lowered via rope. Men carrying heavy loads down these ladders are subject to fall.

i. There is a need to improve quick fire marksmanship. In a number of instances friendly troops surprised the enemy and were able to shoot first; however, the results were negligible. Training conducted along these lines verified this need.

j. When operating in the central-highlands, Montagnard interpreters should be attached to company size units to assist in interrogation of suspects.

k. Dog Teams again proved valuable. Two teams per rifle company should be the SOP assignment. A back up for dogs that are evacuated should be available at all times.

l. Friendly camp sites and LZ’s should be ambushed the following day or night. The NVA utilize trail followers to dig up sumps after friendly forces have departed the area.

16. (C) Recommendations:

a. That the M-79, shotgun round, be subjected to further testing. That consideration be given to issuing the 12 gauge flechette loaded anti-personnel round.

b. That a minimum of four flyable CH-47 helicopters continue to be provided to the Brigade when supporting artillery and supplies are to be moved by an air LOC.

c. That ARVN, CIDG and other indigenous para-military forces (RF and PF units) continue to be used as much as possible to conserve and augment the forces available to a US commander, as well as to improve training, aggressiveness and confidence of the Vietnamese units.

d. This Brigade continues to recommend O-1 aircraft, equipped with
CONFIDENTIAL

AVBD-C

SUBJECT: Combat Operation After Action Report, Operation PICKET (RCs: MACV J3-J2) (U)

Spray tanks, be made available to province and sector for immediate and selective use in crop denial. This will eliminate long delays in obtaining approval and insure greater responsiveness.

S. H. Mathews
Brigadier General, USA
Commanding

9 Inclosures
1. Intel
2. Opn Schematics
3. Personnel and Administration
4. Logistics
5. Communications
6. Civil Affairs
7. Psy War
8. Artillery
9. Engr

DISTRIBUTION:

1 - Assistant Chief of Staff for Force Development,
Department of the Army, Washington, DC 20310
1 - CG, USARPAC, ATTN: CPD-4H
1 - CG, MACV, ATTN: JIC J3
1 - CG, MACV, ATTN: MAC J2
2 - DCS, USARPAC, ATTN: MAC Historical Division
2 - CG, I FORCERY
2 - CG, 101ST AIR DIV, Ft Campbell, KY
2 - CSM, The US Army Infantry School, Ft Benning, GA,
1 - Army War College, Carlisle, PA, ATTN: Library

INTERNAL:

0 - 1 per staff section
10 - 20
3 - ALO
CONFIDENTIAL

Incorporation 1 (Intelligence) to Combat Action Report Operation Pickett.

1. (c) Terrain

a. Piki Valley: This area consisted of rugged, mountainous terrain covered with dense forest and heavy undergrowth. Movement was slow and difficult except for the use of a few existing trails. The valley floor was heavily vegetated due to the abundance of water, and although the maps show a large area - only trees - in reality, in many the mountains and valley areas are close to the area. Observation and fields of fire were poor while cover and concealment were excellent. The Piki Valley provided a good line of approach.

b. Khe An Valley: This area was covered with dense forest and heavy undergrowth. Movement was assisted by the numerous trails in the area, which allowed continual use. The area had some good L-5's, but in general the heavy vegetation limited air mobility operations. Observation and fields of fire were poor, while cover and concealment were excellent. The Khe An Valley also provided a good line of approach.

2. Weather

a. Piki Valley: The place of the operation falls within the "Dry Season" in Khe Sanh Province, but the weather favored friendly offensive operations. Rainfall and sunshine were as predicted and had no adverse effect on operations. Visibility was in the area between 0200 and 1200, ten percent of the time, due to ground fog. There were no unfavorable days for low-level flying operations.

b. Khe An Valley: The place of the operation also falls within the "Dry Season" in Khe Sanh Province, but the weather favored friendly offensive operations. Rainfall and sunshine were as predicted and had no adverse effect on operations. Visibility was in the area between 0200 and 1200, ten percent of the time, due to ground fog. There were no unfavorable days for low-level flying operations.

3. (c) Analysis

a. Field units meticulously prepared trail overlays during the operation as new trails were discovered. They were compiled on a master trail study and provide valuable data for future operations in the Khe Sanh area. More specifically, trails existed in the Piki Valley area that were not recently used by similar enemy elements; trails in the Khe An area showed signs of present and considerable use.

b. The Khe An area was extensively proven to be a well established base area. Prior to deployment into the area intelligence estimates indicated the presence of the 5-6-16 VC Battalion. The 5-6-16 VC Main Force Battalion, the 103 and 204 VC I onal Force companies, approximately 250 VC guerrillas and elements of the 5-6-16 Main Force. After a complete search of the area, base camps within the area were found to be rather sophisticated and capable of accommodating an assault of a regimental size unit. Training areas were also discovered in this area, but nothing was found to substantiate the presence of the 5-6-16 District Headquarters.

c. The enemy forces encountered in the Khe An area were well...

CONFIDENTIAL
Inclosure 1 (Intelligence) to Combat After Action Report Operation Pickett. (cont'd)

professional, disciplined, and terrain oriented, their marksmanship, trail watching ability and communications were of a high order. They had well established plans for the defense of the PL A on 1st as was evidenced by captured documents and, to a certain degree, employed these plans.

d. Experience gained during operation Pickett still supports the previous conclusions that NVA forces do not employ mines or booby traps. However, this type of activity encountered during the operation indicates that they are not only employed by VC and VC guerrillas, but by VC Main Force Units.

e. Many LZ’s located in the Dak Abi Valley were surrounded by enemy foxholes, bunkers, and trenches. In addition, many LZ’s were interdicted by numerous punji stakes and anti-helicopter stakes. This supports the previous conclusion that the enemy was well prepared to defend this area. However, the secrecy, speed, and method of entering this area prevented employment of these defences.

1. COMMSEC: A total of 11,469 transmissions were monitored during operation Pickett with 3 violations reported over wire lines of communications.

g. The winds proved to be considerably in excess of predictions throughout the Dak Abi area and as such, interfered with aerial transport, resupply and observation mission.

4. (C) LESSONS LEARNED:

c. Numerous campsites and base camps were discovered in bamboo thickets along stream beds. These were not discernible from the air. However, by comparing ground inspection with air observation of these areas, air observers were able to realize where potential base camps may exist. Since bamboo may be best to provide overhead concealment, and streams provide a source of water, those areas where streams run through bamboo thickets should be considered as potential targets for troop deployment or BZI fires.

b. On the ground photography of base camps and tunnel complexes provide valuable assistance in future analysis of areas of this nature as well as in providing valuable historical data.

c. Photo Imagery: Due to good initial planning by the 6-2 IFFY coupled with good weather and sufficient lead time, complete base photo coverage was available of the TAK from the start of the operation. The intelligence obtained provided timely update to the trail, defense, and LZ studies of the area.

d. Red Haze: A ground check of several base camps located in the area indicates that as few as three cooking fires may be sufficient to provide cooking facilities for a battalion size camp. In order to facilitate indentifications of possible enemy locations it is important that records of past red haze missions be furnished the brigade in the early planning stages of an operation. Three air strikes were initiated on the basis of reported emissions within 14 hours of the red haze mission. FAC reports results unknown.

e. Visual Reconnaissance: It was apparent that coordination must be made with the other visual reconnaissance pilots so that initially they will continue to assist in the coverage of our assigned AO until our own pilots and observers have become familiar with the area. Although the dense jungle canopy restricted observation, the intelligence gained by visual reconnaissance plus the information furnished by the battalion from the ground enabled the brigade to produce an updated trail study of the area.

1. Enemy tactics and techniques:
Inclosure 1 (Intelligence) to Combat After Action Report Operations Pick to (cont'd)

(1) The enemy will make every effort to locate and evaluate the disposition and strength of friendly forces. On one occasion, two personnel were observed watching the tactical command post of one battalion using field glasses. A greater emphasis should be placed on taking advantage of available camouflage and concealment in order to deny the enemy access to this information.

(2) Numerous cases where the enemy has freshly deployed booby traps, punji stakes, and mines as well as employing snipers along routes travelled by friendly troops indicate that he has an effective trail watching system which he uses just as effectively.

(3) On several occasions during Operation Pickett, the enemy attempted to follow a friendly element as it re-entered a defensive perimeter.

(4) Supporting previous findings in other operational areas, the enemy in Kontum Province also directs his defensive positions along natural lines of drift in trails, ravines, stream beds.

(5) In the PICKETT AO, it became evident that the enemy fled to high ground once friendly troops were introduced into the area. Base camps and campsites were left hastily. Equipment and documents found in them were packed in baskets indicating that the enemy intended to evacuate this area as soon as possible.

(6) It has been noted that in the Kontum area, the enemy digs in on the military crest of a hill with a high speed escape route close by. The escape route does not run to the rear of his position, but invariably to the flanks.

5. During Operation Pickett the following enemy base camps and campsites were located:

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Date Located</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bn</td>
<td>AS 853347</td>
<td>14 Jan</td>
</tr>
<tr>
<td>Plt</td>
<td>AS 867333</td>
<td>13 Jan</td>
</tr>
<tr>
<td>Co</td>
<td>AS 864215</td>
<td>11 Jan</td>
</tr>
<tr>
<td>Co</td>
<td>AS 898275</td>
<td>15 Jan</td>
</tr>
<tr>
<td>Plt</td>
<td>AS 831071</td>
<td>20 Jan</td>
</tr>
<tr>
<td>Co</td>
<td>AS 834074</td>
<td>20 Jan</td>
</tr>
<tr>
<td>Plt</td>
<td>AS 835196</td>
<td>20 Jan</td>
</tr>
<tr>
<td>Plt</td>
<td>AS 855184</td>
<td>20 Jan</td>
</tr>
<tr>
<td>Co</td>
<td>AS 855184</td>
<td>20 Jan</td>
</tr>
<tr>
<td>NF Cmp</td>
<td>AS 860063</td>
<td>20 Jan</td>
</tr>
<tr>
<td>7 Huts 15 Tunnels</td>
<td>AS 812003</td>
<td>5 Jan</td>
</tr>
<tr>
<td>20 Huts 30 Bunkers</td>
<td>AS 861093</td>
<td>5 Jan</td>
</tr>
<tr>
<td>Co</td>
<td>YA 729888</td>
<td>18 Dec</td>
</tr>
<tr>
<td>Bn</td>
<td>YA 730835</td>
<td>18 Dec</td>
</tr>
<tr>
<td>Montgovern Village</td>
<td>YA 835725</td>
<td>15 Dec</td>
</tr>
<tr>
<td>Co</td>
<td>YA 777777</td>
<td>14 Dec</td>
</tr>
</tbody>
</table>

5. (U) The following is a breakout of the enemy weapons and matériel losses during operation PICKETT:

a. Enem}' Captured

<table>
<thead>
<tr>
<th>Type</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauser</td>
<td>2</td>
</tr>
<tr>
<td>M1 Carbine</td>
<td>3</td>
</tr>
<tr>
<td>M1A1 Carbine</td>
<td>16</td>
</tr>
<tr>
<td>M1 Carbine</td>
<td>9</td>
</tr>
<tr>
<td>Shotgun</td>
<td>20</td>
</tr>
<tr>
<td>Flare pistol</td>
<td>2</td>
</tr>
<tr>
<td>D-1 Automatic Rifle</td>
<td>1</td>
</tr>
<tr>
<td>M1 Rifle</td>
<td>2</td>
</tr>
<tr>
<td>1903 Springfield Rifle</td>
<td>12</td>
</tr>
</tbody>
</table>

CONFIDENTIAL
Inclosure 1 (Intelligence) to Combat After Action Report Operations Pickett.

<table>
<thead>
<tr>
<th>Weapon Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1891 Soviet Sniper Rifle</td>
<td>6</td>
</tr>
<tr>
<td>M-3 Sub-Machinegun</td>
<td>1</td>
</tr>
<tr>
<td>Chatellerault LEG</td>
<td>3</td>
</tr>
<tr>
<td>Type 56 SNG</td>
<td>3</td>
</tr>
<tr>
<td>USAF Survival Rifle</td>
<td>1</td>
</tr>
<tr>
<td>French MAS - 36</td>
<td>20</td>
</tr>
<tr>
<td>Soviet Carbine 1944</td>
<td>2</td>
</tr>
<tr>
<td>Chinese SSG Type 50</td>
<td>1</td>
</tr>
<tr>
<td>Tokerov Pistol</td>
<td>1</td>
</tr>
<tr>
<td>FPMN 1932</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL INDIVIDUAL WEAPONS</strong></td>
<td>108</td>
</tr>
</tbody>
</table>

**b. AMMUNITION**

<table>
<thead>
<tr>
<th>Ammunition</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grenades</td>
<td>226</td>
</tr>
<tr>
<td>Small arms ammo</td>
<td>16,336</td>
</tr>
<tr>
<td>82mm Mort rds</td>
<td>57</td>
</tr>
<tr>
<td>60mm Mort rds</td>
<td>40</td>
</tr>
<tr>
<td>Rocket Launcher rds</td>
<td>13</td>
</tr>
<tr>
<td>2.75&quot; Rockets</td>
<td>1</td>
</tr>
<tr>
<td>Claymore mines</td>
<td>2</td>
</tr>
<tr>
<td>AT mines</td>
<td>4</td>
</tr>
<tr>
<td>AF mines</td>
<td>8</td>
</tr>
<tr>
<td>Blasting caps</td>
<td>100</td>
</tr>
<tr>
<td>TNT (lbs)</td>
<td>110.6</td>
</tr>
</tbody>
</table>

**c. OTHER**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>82mm Mort base plate</td>
<td>2</td>
</tr>
<tr>
<td>82mm Mort Bipods</td>
<td>2</td>
</tr>
<tr>
<td>60mm Mort Bipods</td>
<td>1</td>
</tr>
<tr>
<td>60mm Mort sight</td>
<td>1</td>
</tr>
<tr>
<td>Sniper Scopes</td>
<td>1</td>
</tr>
<tr>
<td>TA312</td>
<td>1</td>
</tr>
<tr>
<td>Transistor Radios</td>
<td>1</td>
</tr>
<tr>
<td>Rice (Tons)</td>
<td>50.9</td>
</tr>
</tbody>
</table>

19/3 - K-Field dfl 12

CONFIDENTIAL
CONFIDENTIAL

The 1st to Enclosure [Intelligence] to After Action Report, Operation Mechan

1. (C) VC/NVA Initial Order of Battle

(a) NVA Units

(1) Upon deployment of the 1st 3rd, 101st Abn Div into KOUTH Province for operation FETCH the following NVA units were believed to be located and operating in the vicinity of the Cambodia/Vietnam border, in the general area of southwest KOUTH and northwest PLEIKH Province.

(b) The 1st NVA Div (aka 630 and 307), consisting of 3 NVA Regt, was operating in the northeastern portion of PLEIKH Province. The 32nd NVA Regt, 1st NVA Div was located in the vicinity of Y46973 on 25 Nov 66. The 33rd NVA Regt, 1st NVA Div, after recently suffering approximately 40% casualties, was believed to have crossed the border into Cambodia and was probably located in vic Y5055. The 66th NVA Div was unlocated as of 02 Dec 66, as was the Divisional Support Elements.

(c) The 10th NVA Div (aka 335), possibly consisting of 3 NVA Regt (Appendix 2, to Annex C, (C3) to FERIMENT 46, 27PZAKC) was believed to be located in the KOUTH/PLEIKH/CAMBODIA border area with the exact location unknown. The 88th NVA Regt and the 953 NVA Regt were confirmed as being subordinate to this division and the 101C NVA Regt was confirmed as probable. The 88th NVA Regt was believed to be located just across the Cambodian border in the vicinity of Y3 554 in late Nov 66. The 953 NVA Regt, after contact with elements of the 4th Inf Div (US), had withdrawn to the north, probably using a route just to the east of the border and was believed to be located in the vicinity of Y4 7073 on 29 Nov 66. The 101C NVA Regt was unconfirmed and unlocated.

(b) The 10th NVA Div (aka 24th), operating separately, was believed to be located in the northern portion of PLEIKH Province with the exact location unknown.

(c) The 200th NVA Artillery Detachment, was confirmed to be located in the northern portion of PLEIKH Province with the exact location unknown.

(2) The 24th NVA Regt, operating separately, was believed to be located in the northern portion of KOUTH Province with the exact location unknown. On 02 Nov 66 documents from two NVA KIA at vicinity of AS 8731 (Oak Acol Area) identified the 5th 3rd, 24th NVA Regt.

(3) Estimated NVA strengths by Regt/3n are indicated below:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>STRENGTH</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st NVA Div</td>
<td>5000</td>
<td>25 Nov 66</td>
</tr>
<tr>
<td>Div Hq</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>32nd NVA Regt</td>
<td>1500</td>
<td>25 Nov 66</td>
</tr>
<tr>
<td>33rd NVA Regt</td>
<td>950</td>
<td>02 Dec 66</td>
</tr>
<tr>
<td>66th NVA Regt</td>
<td>1800</td>
<td>11 Aug 66</td>
</tr>
<tr>
<td>Div Spt Units</td>
<td>3350</td>
<td></td>
</tr>
<tr>
<td>10th NVA Div</td>
<td>3300</td>
<td></td>
</tr>
<tr>
<td>Div Hq</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>88th NVA Regt</td>
<td>1600</td>
<td>13 Dec 66</td>
</tr>
<tr>
<td>953 NVA Regt</td>
<td>1500</td>
<td>10 Nov 66</td>
</tr>
<tr>
<td>101C NVA Regt</td>
<td>unk (unconfirmed)</td>
<td></td>
</tr>
<tr>
<td>Div Spt Units</td>
<td>unk</td>
<td></td>
</tr>
<tr>
<td>21st NVA Regt</td>
<td>1800</td>
<td>10 Jun 66</td>
</tr>
<tr>
<td>200th NVA Art Det</td>
<td>200</td>
<td>04 Nov 66</td>
</tr>
</tbody>
</table>

b. VC Units

13

CONFIDENTIAL
TAD 1. to Inclosure 1 (Intelligence) to After Action Report, Operation PICKETT

(1) H-67 VC District Headquarters was believed to be located in vicinity of YA 32826. This district headquarters was located in the 1/101 Initial Area of operation and had the following VC Local Force (VLC) units as subordinates:

(a) 200th VC Co with an estimated strength of 120 personnel.
(b) 260th VC Co with an estimated strength of 100 personnel.

(2) H-16 VC District Headquarters was believed to be located in the general area of AS 8820 (Dak Ai Valley Area) and had the following VC Local Force units as security and operational elements:

(a) 103rd VC Co with an estimated strength of 100 personnel.
(b) 204th VC Co (aka: 240) with an estimated strength of 80 personnel.

(3) The 304th VC Main Force 3n was believed to be located in the Dak Ai Valley Area (AS 9330) but periodically operating in a triangular area extending from the Dak Ai Valley (AS 9330) to Dak To (TD 0022) to Kontum (ZA 7890).

(4) The combined strength of the local guerrillas, VC porters, VC workers and political cadre was estimated at 200 personnel. (This does not include the H-16 and H-67 District Headquarters).

(5) Enumeration of estimated VC strength by unit is indicated below:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>STRENGTH</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 VLCF 3n</td>
<td>350</td>
<td>Nov 66</td>
</tr>
<tr>
<td>H-67 VC Dist Hqs</td>
<td>50</td>
<td>Nov 66</td>
</tr>
<tr>
<td>200 VC Co</td>
<td>120</td>
<td>Nov 66</td>
</tr>
<tr>
<td>260 VC Co</td>
<td>100</td>
<td>Nov 66</td>
</tr>
<tr>
<td>H-16 VC D 1st Hqs*</td>
<td>50</td>
<td>Nov 66</td>
</tr>
<tr>
<td>103 VC Co*</td>
<td>100</td>
<td>Nov 66</td>
</tr>
<tr>
<td>204 VC Co*</td>
<td>80</td>
<td>Nov 66</td>
</tr>
<tr>
<td>Miscellaneous VC Units</td>
<td>200</td>
<td>Nov 66</td>
</tr>
</tbody>
</table>

Note: Located in area of interest and not within Initial 1/101 Abn Div AO.

2. (C) Order of Battle Findings and Summary in the Operational Area.
   a. NVA Units

(1) Elements of the 1st NVA Div (aka 650 & 304) were not contacted in force during this operation. Minor incidents, sightings and intelligence reports indicate units of the 1st NVA Div to include 32nd NVA Regt and 66th NVA Regt withdrew across the Cambodia border in order to recuperate, resupply and reorganize. Numerous reports from various sources indicated that the 33rd NVA Regt had suffered approximately 15% casualties in Nov 66 and there fore was disbanded with the remaining strength being assigned to the 32nd NVA Regt and the 66th NVA Regt as fillers. One source of information revealed that the 9th NVA Regt had recently replaced the 33rd NVA Regt.

(2) Elements of the 10th NVA Div (aka 306 & 325) were not contacted in force. However, interrogation reports received from the 4th Inf...
CONFIDENTIAL

TA3 A to Inclosure 1 (Intelligence) to After Action Report, Operation PICKETT

Div as well as information obtained from two (2) Chieu Hoi NVA revealed that
the 955th NVA Regt had recently moved across the Cambodian border. The 63th NVA
Regt was also reported to be located in Cambodia. The 101C NVA Regt was not
contacted and therefore remained unconfirmed and unlocated.

(3) The 200th NVA Artillery was not contacted during this
operation.

(4) Elements of the 24th NVA Regt were contacted in the
Dak Ako Valley area (AS 9330). The 5th BN, 24th NVA Regt, operating sep-
crately was located in the Dak Ako area as evidenced by the contact in
late Dec 66 and early Jan 67, and interrogation reports and document
translations. The unit appears to have fully recuperated from Operation
HAWTHORNE (Jun 66). Information relative to the 1st and 6th BNs 24th
NVA Regt was not obtained. C3 Factors located at Appendix 1.

b. VC Units

(1) Elements of the VC District Hqs H-67 to include it's
subordinate VCLP Co, the 200th and the 260th, were not contacted in force.
The activities of this organization appear to be passive in nature and
their activities are well contained by the local CIDG Forces.

(2) Elements of the VC District Hqs H-16 with its subordi-
unate units, the 103rd and 204th VCLP Co, were not contacted in force.
Numerous installations, NV locations, caches (food, ammo, weapons and
equipment) believed to be supplemental to the district Hqs operations were
destroyed within the Dak Ako area (AS 9330). A civil defendant detainee
dated that the H16 Hqs was located in the area (here say).

(3) The 304th NVLF BN was not contacted in force. Final
locations and disposition of this unit is undetermined.

3. Conclusions: A continued lack of contact in the PICKETT AO in
southwestern KONTUM Province indicates that the major portion of the NVA
enemy force has probably exfiltrated into Cambodia or is deployed along the
KONTUM/Cambodia border in small groups. It is possible that the NVA has
chosen to enter Cambodia in order to regroup, recuperate and resupply as
a result of heavy losses suffered during the month of Nov 66 by its units
in contact; the 32nd, 33rd, 88th and 953 NVA Regts. The 66th NVA Regt and
the 101C NVA Regt, if it continues to exist as a unit, remain out of contact
and unlocated. Recent information indicated large groups (most likely
elements of the 1st and 10th NVA Div) of NVA forces located in vicinity
of YA 5550 - YA 5560 and vicinity YA 7012.
CONFIDENTIAL

APPENDIX I to TAD A to Inclosure 1 (Intelligence) to After Action Report, ADET. 1 Ticket.

1. Composition
   a. 24th NVA Regt
   b. See attached line and block chart for organization.
   c. Possible new cover name: CONG TROU GH SON HA.

2. Disposition:

   The 5th NVA Regt, with some elements of the Regimental Combat Support units, was located in the Dak Akc Valley area (259255) in early Jan 67. The location of the 4th and 6th BN’s, 24th NVA Regt are unknown.

3. Strength:
   a. Personnel
      (1) 24th NVA Regt - unknown
      (2) 5th BN, 24th NVA Regt - Estimated 3CO.

   b. Weapons: 7th Co, 5th BN, 24th NVA Regt had the following weapons and ammunition in Dec 66.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>27</td>
</tr>
<tr>
<td>B63</td>
<td>15</td>
</tr>
<tr>
<td>RD</td>
<td>8</td>
</tr>
<tr>
<td>5-40</td>
<td>2</td>
</tr>
<tr>
<td>Riddle</td>
<td>10,960 rds</td>
</tr>
<tr>
<td>5-40 ammo</td>
<td>6 rds</td>
</tr>
</tbody>
</table>

4. Training: No info
5. Tactics: No info
6. Logistics: No info

7. Combat Efficiency
   a. 5th BN, 24th NVA Regt: Good
   b. 4th & 6th BN, 24th NVA Regt: Unknown

8. Miscellaneous: Personalities are listed as follows:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>POSITION</th>
<th>RANK &amp; NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>24th NVA Regt</td>
<td>CO</td>
<td>Maj TRUONG</td>
</tr>
<tr>
<td>24th NVA Regt</td>
<td>XO</td>
<td>Maj LUNG</td>
</tr>
<tr>
<td>1/24th NVA Regt</td>
<td>CO</td>
<td>Sr Cpt NRUCONG</td>
</tr>
<tr>
<td>1/24th NVA Regt</td>
<td>XO</td>
<td>Cpt VAY</td>
</tr>
<tr>
<td>1/24th NVA Regt</td>
<td>FO</td>
<td>Cpt CUONG</td>
</tr>
<tr>
<td>1/24th NVA Regt</td>
<td>CO</td>
<td>Lt THEET</td>
</tr>
<tr>
<td>1/24th NVA Regt</td>
<td>XO</td>
<td>Lt DAI</td>
</tr>
<tr>
<td>1/24th NVA Regt</td>
<td>FO</td>
<td>Lt NOI</td>
</tr>
<tr>
<td>1/24th NVA Regt</td>
<td>AFO</td>
<td>Lt NOI</td>
</tr>
<tr>
<td>2/24th NVA Regt</td>
<td>CO</td>
<td>Lt JUI VAN PHON</td>
</tr>
<tr>
<td>2/24th NVA Regt</td>
<td>CO</td>
<td>Lt YAI</td>
</tr>
<tr>
<td>2/24th NVA Regt</td>
<td>CO</td>
<td>Cpt TRUONG</td>
</tr>
<tr>
<td>2/24th NVA Regt</td>
<td>XO</td>
<td>Cpt LUNG</td>
</tr>
<tr>
<td>5/24th NVA Regt</td>
<td>FO</td>
<td>Cpt AN</td>
</tr>
</tbody>
</table>
### CONFIDENTIAL

**APPENDIX I to TXT A to Inclosure 1 (Intelligence) to After Action Report, OPERATION PICKET.** (cont'd)

#### 8. Miscellaneous: Personalities are listed as follows: (cont'd)

<table>
<thead>
<tr>
<th>UNIT</th>
<th>POSITION</th>
<th>FIRST NAME &amp; INITIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/5/21st NVA Regt</td>
<td>CO</td>
<td>Lt. DUG</td>
</tr>
<tr>
<td>7/5/21st NVA Regt</td>
<td>CO</td>
<td>Lt. HA</td>
</tr>
<tr>
<td>8/5/21st NVA Regt</td>
<td>CO</td>
<td>Lt. DOCH</td>
</tr>
<tr>
<td>10/5/21st NVA Regt</td>
<td>CO</td>
<td>Lt. ROZ</td>
</tr>
<tr>
<td>6/24th NVA Regt</td>
<td>XO</td>
<td>Capt. CHU BAN TAN</td>
</tr>
<tr>
<td>6/24th NVA Regt</td>
<td>FC</td>
<td>Capt. MINH</td>
</tr>
<tr>
<td>6/24th NVA Regt</td>
<td>FC</td>
<td>Capt. NO LONG</td>
</tr>
</tbody>
</table>

---

**CONFIDENTIAL**

---
APENDIX 1 to TAB 2 to Inclosure 1 (Intelligence) to After Action Report,
OPERATION PICKETT, (cont'd)

9. 24TH NVA REGT. LINE AND BLOCK CHART
1ST NCO 101ST AIR DIV
OPERATION PICKET
27 DEC 66 - 19 JAN 67

LZ FORREST
Dak to
LZ THOMAS

2/327 LINCOLN

PLATEAU GI

KONG POKO

KONTIKI

TAB C
CONFIDENTIAL

Inclosure 3 (Personnel and Administration) to Combat Operations After Action Report, Operation PICKETT

1. (C) UNIT STRENGTHS:
   a. Beginning of Operation PICKETT.
      (1) The Brigade personnel strengths at the beginning of Operation PICKETT were as follows:

      | Authorized Augmented (MTS) | Assigned  | Present for Duty |
      |---------------------------|-----------|------------------|
      | 4490                     | 4913      | 4423             |
      | Airmixed - Tuy Hoa        | 3345      |                  |
      | Base Camp - Phan Rang    | 605       |                  |
      | Not Present for Duty     | 475       |                  |

      (2) The assigned strength was 110% of the authorized strength. The present for duty strength was 98.5% of the authorized strength.

      (3) Of the not present for duty strength, 15 were hospitalized, 273 were in transit, 119 were on TOY/SY status, 5 on leave, 12 in confinement, and 9 MUX.

   b. Conclusion of Operation PICKETT.
      (1) The Brigade personnel strengths at the conclusion of Operation PICKETT were as follows:

      | Authorized Augmented (MTS) | Assigned  | Present for Duty |
      |---------------------------|-----------|------------------|
      | 4490                     | 4913      | 4423             |
      | Airmixed - Kontum         | 3274      |                  |
      | Base Camp - Phan Rang    | 605       |                  |
      | Not present for Duty     | 475       |                  |

      (2) The assigned strength was 107% of the authorized strength. The present for duty strength was 97.5% of the authorized strength.

      (3) Of the not present for duty strength, 10 were hospitalized, 140 were in transit, 12 were on TOY/SY status, 53 on leave, 18 in confinement, and 3 MUX.

      (4) The 6th Army Postal Unit, attached to the Brigade, has three personnel present for duty of 11 authorized.

   c. Replacements received during the Operation were assigned to subordinate units as follows:

      | OFF | EN | NCO | 2/327 |
      |-----|----|-----|-------|
      | 2/327 8 95 2/107 | Spec. Bn | 97 |
      | 2/502 8 89 107 | Separato Co | 80 |

2. (C) CASUALTIES:
   a. Casualties for the Operation were as follows:

      | UNIT | KIA | WIA |
      |------|-----|-----|
      | 1/327 | 7   | 2   |
      | 2/327 | 1   | 23  |
      | 2/502 | 15  | 34  |

CONFIDENTIAL
CONFIDENTIAL

Inclosure 3 (Personnel and Administration) to Combat Operations After Action Report, Operation PICKET

2/320
A 3/17 Cav
A 326 Engr
421 Inf (SD)
TOTAL

23
104

b. Total casualties to date:

KIA
343
UAI
1897
TOTAL
23

3. (U) PERSONNEL PROGRAM:

a. The Red Cross Recreational Unit continued its visits to forward units during Operation.

b. Brigade troopers received many Christmas cards and packages from CONUS during the Christmas holidays.

c. Records checks were conducted by RG in the forward area during the operation.

4. (U) PERSONNEL PLANNING: Planning during the period involved the following areas:

a. By the end of December 1966, the Brigade had rotated approximately 900 personnel during a three month period.

b. The plan developed and forwarded to USARV to level out the officer and warrant officer "HREP" during months of May and June 1967 was forwarded to DA for final action.

5. (C) MEDICAL:

a. The Bamboo Threat: The "Punji stake" is a well known example of how bamboo can be utilized to maim and kill. Recently the ubiquitous bamboo plant proved that it possesses a danger for the soldier even when it stands un molested in its natural habitat. A Brigade trooper, while stringing coza wire in a tree, accidentally fell into a bamboo thicket impaling himself upon an otherwise innocuous bamboo shoot. The stalk entered his upper right chest and exited his lower left back, fatally injuring the young soldier. This potential danger is especially of concern during helicopter combat assaults wherein the troopers often times exit the aircraft some distance above the ground over clearings covered with a fairly dense growth of grass and underbrush. Under these circumstances, bamboo thickets should be approached with the same respect one shows punji stakes, because they have more in common than one might think.

b. Patients treated by the 1st Brigade Clearing Station.

(1) VIU
104
(2) KIA
23
(3) Non Hostile Injury
210
(4) Disease
567
(5) Returned to Duty
284
(6) Evacuated to Hoap
595
Inclosure 3 (Personnel and Administration) to Combat Operations After Action Report, Operation PICKETT

(7) Remaining in Holding 3
(8) Total Patients admitted 879

c. Hospitalized Personnel Categorized by wounds:

<table>
<thead>
<tr>
<th>Category</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head</td>
<td>12</td>
</tr>
<tr>
<td>Chest</td>
<td>6</td>
</tr>
<tr>
<td>Abdomen</td>
<td>4</td>
</tr>
<tr>
<td>Upper Extremities</td>
<td>24</td>
</tr>
<tr>
<td>Lower Extremities</td>
<td>60</td>
</tr>
<tr>
<td>Back Injuries</td>
<td>6</td>
</tr>
</tbody>
</table>

d. SUMMARY: Due to the location of the AO, and the outstanding dustoff support, the Brigade Clearing Station was able to support the combat battalions from the Brigade Trains area. Though remaining flexible for any tactical situation which would dictate a change in posture for better cover, the Brigade Clearing Station was also able to provide complete medical coverage for the rear elements.
CONFIDENTIAL

Enclosure 4 (Logistics) to Combat After Action Report, Operation PICKETT

1. (C) Organization of Support:

   a. Support Battalion. Support Battalion established a Forward Support Element (FSE) in the forward area to provide highly responsive combat service support to the Brigade units. The FSE was located adjacent to the Kontum Forward Support Area (FSA) at Kontum airfield. The FSE was commanded by a field grade officer and included Company D, 326th Medical Battalion, a maintenance section, a supply section, an ammunition section, a transportation section, an AG section, and an operations section.

   b. Supporting Forces:

      (1) Pleiku Sub Area Command of the US Army Support Command, Qui Nhon provided command and control of the Kontum FSA.

      (2) 10th Combat Aviation Battalion provided UH-1D helicopters for logistical as well as tactical support.

      (3) 120th Aviation Company provided CV-2 aircraft support between the Brigade base camp at Phan Rang and the Brigade field trains adjacent to Kontum airfield. The CV-2 was redesignated C7A and placed under US Air Force control effective 1 January 1967.

      (4) 179th and 160th Aviation Companies provided CH-47 helicopter support.

      (5) 598th Air Ambulance Company provided aeromedical evacuation support during the operation.

2. (C) Material and Services:

   a. Supply.

      (1) Class I supplies were received through the Kontum FSA. All Class I supplies were available-in-abundance throughout the operation. Fresh fruits, vegetables, rice and ice cream were received daily. Class I support throughout the operation was the most responsive and complete the Brigade has yet received in Vietnam. A total of 502 short tons of supplies were issued, to include 120,726 "B" rations and 46,682 rations of Combat, Individual.

      (2) Class II and IV supplies were received primarily from the Brigade base camp at Phan Rang through an air line of communication. However, the Kontum FSA did establish a direct exchange (DE) facility for items which wore out quickly, such as jungle fatigues, boots, underwear, socks and towels; this permitted a reduction in equipment carried by Brigade units. Additionally, the FSE provided burlap materials, lumber and nails. A total of 44,5 short tons of Class II and IV supplies were received during the operation. The Kontum FSE provided highly responsive and effective Class II and IV support throughout the operation.

CONFIDENTIAL
Inclosure 4 (Logistics) to Combat After Action Report, Operation PICKETT

(3) Class III. All types of Class III and IIIA were drawn from the Kontum FSA for support of the Brigade and supporting arm aviation units. A total of 8750 gallons of AVGAS, 5200 gallons of MOGAS, and 31250 gallons of DIESEL were issued in support of the operation. This equaled 398.2 short tons.

(4) Class V. Class V continued to be in adequate supply throughout the operation. All ACR items were stringently controlled by the Brigade S4 and the FSE ammunition section. The low ACR of some ammunition items had no adverse effect upon combat operations. A total of 396.5 short tons of Class V supplies were issued during the operation.

(5) Water. Company A, 326th Engineer Battalion operated a 1500 gallon water purification unit which was adequate for the Brigade's needs.

b. Maintenance:

(1) Shop Statistics. The FSE maintenance detachment received 66 automotive, 150 armament, 475 signal, 80 instrument, 99 service, and 31 engineer jobs. Of this number all but 54 signal job orders were completed. A total of five H-131 trucks and one H-378, 151 trucks were salvaged during the operation.

(2) Maintenance Operation. The proximity of the FSE maintenance detachment to Kontum airfield facilitated the evacuation of unserviceable and salvaged vehicles to the rear area. In addition, the thorough Class II and IV support provided by the FSA permitted utilization of less aircraft cargo space for Class II and IV supplies and more space for repair parts aboard supporting aircraft sent from the base camp. Consequently repair parts arrived more quickly and with less lead time required.

(3) Maintenance Inspections. The program of roadside spot checks was continued and proved highly effective in uncovering maintenance deficiencies. The close proximity of all unit trains to the FSE facilitated recovery operations and turn in of job orders.

(4) Contact Teams. Contact teams became more effective, primarily because of the increased cooperativeness by all units. Units sent a thorough analysis of the maintenance difficulty with each request for assistance. As a result, the maintenance officer was able to dispatch a contact team with the proper tools and parts required to accomplish its mission. This accurate flow of information from requesting unit to maintenance officer contributed greatly to contact team efficiency.

c. Transportation:

(1) Ground Transportation. An average of 17-21 ton trucks were utilized to support the Brigade operations each day in the forward area.
Inclosure 4 (Logistics) to Combat After Action Report, Operation PICKETT

(2) Air Transportation.

(a) C-7A aircraft flew a total of 114 sorties and carried 2,412 passengers and 168,990 pounds of cargo in support of Operation PICKETT.

(b) Other Air Force aircraft, primarily C-130's, flew 76 sorties while hauling 2,277 passengers and 919,076 pounds in support of Brigade logistical operations.

d. Other Services:

(1) Graves Registration was provided by the Kontum FSA with personnel and equipment drawn from the Pleiku Sub Area.

(2) Bath. A quartermaster bath unit and showerhead was established in the vicinity of the Brigade water points, and operated by personnel from the Kontum FSA. The services proved adequate to meet the Brigade needs.

(3) Laundry. The Kontum FSA provided laundry facilities on both individual and unit bulk basis.

2. (U) Summary.

The organization for logistical support during Operation PICKETT was outstanding. The support rendered by the Kontum FSA was the best received by the Brigade. No major logistical problems developed, and the logistical system remained capable of fully supporting tactical operations.

4. (U) Conclusions. Except for continued refinements, the current organization for logistical support should be continued.
CONFIDENTIAL

Inclusion 5 (Signal) to Combat After Action Report, Operation PICKETT

1. (U) Background:

The 1st Brigade communications platoon and the 1st PASC Signal had the joint mission of displacing the communications systems from TUY HOA upon the completion of Operation GRENADA, to KONTUM, reestablishing and maintaining communications for Operation PICKETT.

2. (C) Operations:

a. VHF Section - It was determined that the VHF section would not be required on Operation PICKETT. Upon termination of GRENADA, the VHF section deployed by convoy to the PHU RING Base Camp. The personnel were utilized in a combat assault to secure a radio relay site N of KONTUM and occupy positions to secure the site until the completion of the operation.

b. Communications Center Section - Terminated operations in TUY HOA and reestablished them at KONTUM, terminating three half duplex circuits with higher headquarters. The motor messengers continued to provide message service within the Brigade.

c. Switchboard/Wire Section - Terminated the CP operations at TUY HOA and reestablished the CP at KONTUM. Thirty miles of wire were installed and sixty-eight circuits were terminated at the Static Forward switchboard.

d. FM Radio Section - Provided FM radio nets within the Brigade, with auto retrans sites at LZ FEST and Hill 940.

e. AM Radio Section - Was not committed during Operation PICKETT. Personnel from this section continued to operate the Army MARP station at PHU RING and extended services to KONTUM during the Christmas and New Year period by installing a portable section.

f. Maintenance Section - Continued to provide maintenance support for Brigade Headquarters and Headquarters Company and attachments, and operated the CP lighting system.

g. 5th Signal Battalion - Continued to provide circuits into the area system, secure RTT and single sideband phone patch services from KONTUM to I FFORCEV, NHA TRANG and Brigade Base Camp at PHU RING.

3. (C) Problem Areas:

a. Equipment shortage: Due to the nature of the operations, the Brigade VHF section was not committed. Had it been committed, the shortage of 12 30V and 20 40AC Generators would have seriously affected the operational ability of this section. The generators were requisitioned on a Q2 priority on March 1966 and again requisitioned on 23 August 1966.

b. Operational requirements for all the forces available for the operation limited the number of personnel available for a radio relay site security force. The uncommitted personnel of the Brigade Signal elements and personnel from the Infantry battalions who were unable to keep pace on search and destroy operations were employed to provide the relay site security.
Inclusion 6 (Civil Affairs) to Combat Operations After Action Report Operation PICKETT.

1. (U) Civil Affairs activities during the period covered by PICKETT were centered around price and wage control to preclude a violent impact on the local economy and to assist in the brigade's plaster control program. Coordination with local GVN officials and their counterparts was made prior to the arrival of the brigade in Kontum and the beginning of Operation PICKETT. During initial coordination with District officials, the daily wage for laborers was set at 500VN. The Kontum District Chief also stated that up to 250 male laborers would be available per day. Both items subsequently proved to be erroneous. The minimum daily wage in Kontum was 700VN. No more than 90 male laborers could be hired on a daily basis and most of them would not be mature men but rather boys in their late teens. Unemployment is not a problem in Kontum and most laborers earn more than 700VN per day.

2. Civic Action efforts during Operation PICKETT were pointed at high impact, short duration projects with maximum integration of local military forces whenever possible. Cooperation and assistance from the local government officials, civilian agencies and US personnel in the area was excellent and success was achieved in getting the ARVN to take over responsibility for projects initiated by the brigade. Although the brigade's stay in Kontum was short, by setting the example and by showing the way, a new and more active interest in Civic Action was generated in the Kontum area. The following significant events were accomplished.

a. A series of sickcalls were held in villages surrounding Kontum utilizing the medics from 15, 41st CA Co and an ARVN medic from Province S-5. A total of 669 persons were treated in this joint Vietnamese/US projects.

b. Dental officers from the 2nd Medical Co treated 84 patients at Dr. Smith's Montagnard Hospital and the Lepersarium at Kontum.

c. A joint Vietnamese/Medical Show was conducted which treated 480 patients, allowed Province officials to speak with the villages and movies (health and psy op) were shown. This was the first operation of this type Province officials had participated in. The operation lasted approx 24 hours and was considered a very valuable experience by the GVN personnel participating.

d. A project was executed repairing the foot walk across the river bridge at Kontum, 15, 1st CA Engineer Officer provided technical advice and assistance, 1st 5th, 101st Abn Div provided the materials and an ARVN Engineer Co did the work. This was a valuable, much appreciate project which reflected very favorably on the image of ARVN with the local population.

e. Troopers from the brigade finished several valuable projects at Dr. Smith's Montagnard Hospital which vastly improved the facilities serving the local population.

1. A shelving system was constructed in the hospital warehouse and two medical supply specialist organized a mount of medical supplies into an orderly, useful system greatly simplifying the hospital personnel's work.

2. A fish pond was constructed, and stocked with carp and tilapia. This was a much needed project which will provide a continuis source of protein for the patients. Protein deficiency is one of the most prevalent complications with almost all illnesses in the area.

3. A metal framework for a permanent building was erected and roofed. This building measures 30 feet by 75 feet and when finished will provide a tuberculosis ward for the hospital.

f. Four tons of food, clothing and other commodities were
g. A joint project was conducted with the Kontum Province S-5 to provide a building in Trung Whia for a day nursery and school. Bde troops erected the metal framework the S-5 troops were in the process of finishing the building when Operation Pickett was terminated.

h. A Montagnard village (Kondosing AR 90192) alleged that personal property, money, and food was taken from the villagers by Vietnamese troops during a joint operation with Bde elements. The villagers were irate because of their strong pro GVN record, the fact that the village was Catholic, and that several PF were stationed in the village, and the villagers felt that their friends were treating them as enemies. The Bde S-5 section organized an operation in an attempt to reduce the ill feeling and worked closely with GVN officials to get the allegation investigated and claims paid by GVN to the villagers involved. The village was visited, food, clothing, candy and other commodities were distributed. This effort placated the village which then reciprocated with a festival for the troopers.

i. Two officers from the brigade attended the USAID/GOV/JUSPAO Orientation Course.

j. Support Battalion established a Voluntary Civic Action Fund to supplement Project 101 which supports 101 scholarships in the Phan Rang area.

3. Lessons Learned:

a. Although Vietnamese interpreters are normally adequate when dealing with Montagnards it is much more desirable to use Montagnard interpreters. Montagnards are much more responsive to their own kind and they very often recent dealing through a Vietnamese interpreter.

b. Before visiting a Montagnard village it is wise to contact the local priest or missionary as he is normally the most informed person on local village activities. He is not only the religious leader of the people but very often he is the unofficial spokesman for several villages and is respected and obeyed by the members of his flock. His support and advice on civic action projects will do much to insure success.

c. In the event that a death or serious injury of a Vietnamese civilian is caused by US personnel the making of solatium payments and the offering of condolences should be coordinated with the local Vietnamese officials. Their assistance and advice in these matters can prove invaluable.

d. In the planning of search and destroy or cordon and search operations in heavily populated areas, coordination should be made with the S-5 to obtain information he may have concerning the area and to effect the integration of medicine show operations when feasible.

f. Units must notify the S-5 section whenever there is a change in the number of daily hire laborers they require. This procedure will insure an adequate supply of laborers and will preclude overhiring.

g. When entering a new area do not assume that locally stationed personnel have the civic action effort well in hand. Often the most obvious projects are the most needed. Take the initiative, set the example and get the civic action ball rolling.

h. Price control measures are not effective without constant troop orientation. Even though price lists are distributed and posted in business establishments, many troopers readily pay whatever price the shopkeeper quotes without question and without realizing that they are contributing to inflation and hurting our overall effort in Viet Nam. Commanders must continuously emphasize and impress upon the members of their units that they must pay only the official prices and no more.
Inclosure 7 (Psychological Warfare) to Combat Operations After Action Report, Operation PICKETT (U)

1. (U) Psychological Objective: Psychological Warfare activities were oriented and directed toward enemy units and friendly civilians in the operational area.

2. (C) Operation PICKETT:
   a. Leaflets: A total of 2,200,000 leaflets were dropped during the operation.
   b. Loudspeakers: A total of 38 hours of loudspeaker appeals were delivered by USAF U-10 aircraft and the Ground Speaker Team. The themes used in the appeals were ORDEAL, MOI, and Dehumanization. A total of six hours of loudspeaker time was utilized by the ground speaker team during the operation.
   c. Summary: It is believed that psychological operations, together with the violent offensive nature of the tactical situation, contributed extensively to the demoralization of enemy personnel. By the closing date of the operation two NVA soldiers had surrendered themselves to the Brigade.
Enclosure 6 (artillery) to Combat After Action Report, Operation PICKETT (U)

1. Task Organization: Available Artillery: 3 Bty’s (105) 2/320th Arty, 1 Bty (105) 221st ARVN Arty, 1 Btry (155) 1/30th Arty, 1 Platoon (155) ARVN Arty.

2. Supporting Forces: N/A

3. Intelligence: N/A


5. Summary of Operation: Fire support coordination during Operation PICKETT continued to follow procedures that have proven successful during previous operations. No new or different techniques were developed. During Phase I of Operation PICKETT, two Black Eagle companies (CIDC, with special training in recon and surveillance) were attached to the battery with the mission of conducting search and destroy operations between two battery positions. In addition, these CIDC companies were used to secure AO given 2/320th Artillery. This unit provided a FO with each to act as both liaison and observer. During PICKETT a NIT was sent to the SF camp at MAK 106m to teach 106cm Howitzers techniques (FEC and firing). Combined operations with the 221st ARVN Arty were conducted during both phases. NIT’s and FO’s were provided to the ARVN infantry units. In addition to the gunnery aspects of the operations, the battalion survey section surveyed an extensive compass course and assisted in training Vietnamese forces in map reading. A Beehive demonstration was conducted for MACV, ARVN Arty officers, and newly assigned personnel to the brigade. Numerous service practices were conducted. Finally the battalion participated in Airborne Refresher Training culminated by parachute jumping.

6. Execution:

a. 9 December - 2h December 1966

(1) At 090000 December, C2/320th displaced to YA772386. Unit closed at 1830 hours. Direct support 1/327th Infantry.

(2) At 091000 December, C2/320th moved to YA027978 by convoy. Unit closed at 1100 hours. Direct support 2/252d Infantry.

(3) At 091000 December, B2/320th displaced by CH-54 to YA77226 with mission of reinforcing C2/320th Artillery.

(4) At 140000 December, B2/320th displaced by CH-54 to YA772526. Unit closed at 1200 hours. Direct support 2/327th Infantry.

(5) At 101100 December, the remaining platoon of B2/320th displaced by CH-54 to YA761926 with mission of reinforcing the fires of B2/320th Artillery.

(6) At 220000 December B2/320th closed back into the KUCTION airfield complex and began training for future operations. The element of B1/320th also displaced back to airfield complex. The entire element closed at 1530 hours.

(7) At 230000 December C2/320th closed back to KUCTION airfield complex and began training for future operations. Unit closed at 1540 hours.

(8) At 240000 December C2/320th displaced back to KUCTION airfield complex and began training for future operations. Unit closed at 1500 hours.

b. 27 December - 18 January 1967
Enclosure 8 (Artillery) to Combat After Action Report, Operation P:CIIT

(1) At 170700 December B2/320th displaced to AS853264 in direct support of A/327th Infantry. Unit closed at 1030 hours.

(2) At 170900 December B2/320th began airborne refresher training.

(3) At 170900 December B1/30th Arty displaced by CH-47 and CH-54 to AS961626. Unit closed 1330 hours. Direct support 2/502d Infantry.

(4) At 180730 December C2/320th Arty displaced by C-147 to AS853234. Reinforcing A2/320th Arty. Unit closed at 1225 hours.


(6) At 091000 January three (3) tubes of B1/30 Arty displaced to AS853264, reinforcing the fires of B1/320th Arty. Unit closed at 1115 hours.


(8) At 060900 January the remaining 3 tubes of B1/30th Arty displaced by CH-54 to AS807018 with mission of reinforcing fires of B2/320th Arty.

(9) At 111000 January C2/30th Arty exchanged personnel with C2/30th Arty so that C2/320th Arty could take airborne refresher training and conduct parachute jumps.


(12) At 190515 January B2/320th Arty displaced back to KIITUM Airfield complex and began preparations for future operations.

7. Results: Estimate 7 FC (KIA).

8. Administration Matters: N/A

9. Special Equipment and Techniques: N/A

10. Commander Analysis: That the 2d Battalion, 320th Artillery, Battery E, 1st Battalion, 30th Artillery, and tactical air continue to provide adequate fire support.

11. Recommendations: That six (6) CH-47's be attached to Brigade for movement of artillery.
1. This report describes two hasty methods for clearing landing zones in elephant grass or in bamboo using demolitions. Each of these methods has been tried and found to be effective, however it is believed that the final recommended procedures as described will make these methods more effective.

2. The requirement for hasty means of clearing landing zones became critical when the Brigade started Operation PICKET in the mountainous jungle near the Cambodian border west of KONTUK. A method of clearing grass and small brush using bangalore torpedoes was suggested by the Brigade Engineer, 3d Brigade, 25th Infantry Division at a conference at I Field Force Vietnam. An adaptation of this method was successfully used, but a requirement still existed to cut landing zones without first having to place personnel on the ground. Aerial bombs have been used for this purpose, but they frequently leave a large crater and a fairly small clearing for the amount of explosives required.

3. Inclosure 1 describes the development of a hasty method for clearing landing zones in elephant grass or bamboo using bangalore torpedoes. This system requires personnel on the ground to place and fire the bangalores, but it saves a great deal of time and labor and it does not require a great safety distance when firing the bangalores. This method is recommended when troops are on the ground at or near the desired landing zone site.

4. Inclosure 2 describes the development of a hasty method for clearing landing zones in elephant grass or bamboo using a large explosive charge emplaced by helicopter. This method requires a very large safety distance but is extremely rapid and does not require any personnel on the ground. This method is recommended when no personnel are near the desired landing zone site.
CONFIDENTIAL

Appendix 1 (Easy Method for LZ Clearing Using Bangalore Torpedoes) to
Enclosure 9 (Engineer) to Combat Operations After Action Report, Operation
PICTS-HE (U)

1. The initial idea was massaged at a conference of Engineers at I FORCEN in
early December by Captain Swoon, Brigade Engineer, 34 Brigade, 25th Infantry
Division. He stated that they had successfully used bangalore to clear small
bush and grass by placing the bangalore 12 feet on centers.

2. A test was run trying to place 15 foot sections of bangalore torpedoes
fused with time fuse from a helicopter. This test was not successful. The
sections were very awkward to handle, could not be placed accurately, and only
succeeded in making small, random clear spots. A test was later run carefully
placing two long parallel sections of bangalores 20 feet apart in tall
elephant grass. The elephant grass was effectively cut down to bare earth.

3. On 13 December 1966 a landing zone was needed for a battalion assault.
An Infantry platoon for security and a seven man Engineer team jumped from
elevored helicopters into what appeared to be tall elephant grass to cut an
LZ for the battalion assault. On the ground it was apparent that the vegetation
was primarily bamboo 15 to 20 feet tall. Eight complete bangalore torpedoes (50 five foot sections) were brought in slung under a helicopter
and dropped to the Engineer team. These bangalores had been removed from
the wooden boxes and a connecting sleeve had been placed on end of each
section. The bangalores were assembled into eight 50 foot lengths placed
parallel approximately 15 feet apart (the clearer spacing was used because
the vegetation was bamboo). A ring main of detonating cord was run around
the bangalores and they were primed at each end. The resulting blast cleared
an area approximately 120 feet long and 60 feet wide. Although additional
hand cutting was needed to level stubs to give bare earth for the helicopter
skids and to cut down tall shoots of bamboo on the approach and exit paths,
the first UH-1D helicopter safely landed 63 minutes after the bangalores
were dropped on site. The loaded UH-1D's began arriving 20 minutes later
and a total of two battalions were brought into the LZ during the day. The
LZ was continually improved by hand, primarily clearing approaches, as the
LZ was being used.

4. The next time convening task was working in the extremely dense and
tangled growth. It was difficult to carry the five foot sections, awkward to assemble even these short lengths, impossible to accurately space the rows and assure that they were parallel, and slow to place the ring main of
detonating cord to fire the bangalores. It is believed that a substantial
time saving could be realized by laying one long row of bangalore sections
down the full length of the desired LZ and firing this one row. From the
cleared lane formed by this blast bangalore sections could be quickly
carried, assembled, and thrust outward into the growth to clear the LZ to
the desired width. These parallel rows thrust outward from the cleared
lane could be quickly primed for firing by a ring main deployed along
the edge of the cleared area.

5. The final recommended procedure for clearing LZ's with bangalore
torpedoes is as follows:

a. The bangalore torpedo sections are removed from the wooden box
and a connecting sleeve is attached to one end of each section. (The required
number of bangalores is computed by figuring that each bangalore clears a
lane 20 feet wide in elephant grass and a maximum of 15 feet wide in bamboo)
Slinging the bare torpedo sections with connecting sleeve attached saves
weight in the slung load and saves time on the LZ site.

b. A single row of bangalore sections is assembled full length
down the center of the LZ and fired from one end. This will clear a lane
from which to place all other bangalore sections.

c. Working from the cleared path, parallel sections of bangalore
are assembled and thrust outward to the desired width of the LZ. These
Bangalores are placed on 15 or 20 foot centers depending on the vegetation to be cut. A ring main of detonating cord is run around the cleared path and the inside ends of the bangalores are primed. Firing these bangalores will cut the LZ.

d. Necessary hand cutting is done to remove stubs and to clear approaches.

6. The use of bangalore torpedoes requires personnel on the ground to place and fire the detonations. This method greatly increases the speed of cutting LZ's and, in thick vegetation, the safety distance from bangalores is quite small - approximately 20 meters.
APPENDIX II (Hasty Method for LZ Clearing Using Large Demolition Charges Employed by Helicopter) to Enclosure 9 (Engineer) to combat after action report Operation PICKETT (U)

1. When it was demonstrated that personnel were required on the ground to effectively use Bangalore torpedoes for LZ clearing, other methods of hasty LZ clearing were considered. Heavy aerial high explosive bombs delivered by tactical aircraft will clear LZ's in elephant grass or bamboo, however this method proved to be unsatisfactory because extremely accurate placement is difficult to achieve and the bombs leave substantial craters in the proposed LZ. A test using a large demolition charge placed by UH-1D helicopter was run on 21 December 1965.

2. The demolition charge basically consisted of 50 pounds of tetratol in a 55 gallon drum. The drum was rigged with a rope sling and a cloth donut to facilitate sling loading under a UH-1D helicopter. Some short sections of steel pickets were placed around the periphery of the drum. The drum was then filled with blocks of tetratol removed from the sachets in which they were packed. Four 23 pound blocks of C-4 were wrapped with 2 lengths of detonating cord. After the drum was filled with tetratol a wooden top was attached to ensure that the tetratol remained packed in the drum. Two leads of four strands of detonating cord were extended from the top of the drum for a length of 25 feet. These leads were taped to a length of rope to prevent tangling and blowing in the rotor wash.

3. The cloth donut was hooked to the sling hook of a UH-1D helicopter and the two detonating cord leads were handed to a man in each door of the helicopter. Each of the men receiving these leads had a non-electric blasting cap attached to a 29 minute time fuse which was inserted in a fuse lighter. As the helicopter approached the area where the demolition was to be released the caps were taped into the detonating cord leads. When the pilot signalled that he was ready to release the charge the fuse lighters were pulled, but the leads with the fuse was held in the helicopter so that the fuse could be cut in case the hook release failed. As the charge was released, the leads pulled free.

4. The charge was placed into a bamboo grove where the bamboo was about 20-25 feet tall. The charge was released at the level of the top of the bamboo and so fell about 25 feet. The blast occurred after the planned time interval which allowed ample time for the helicopter to fly to a safe distance. The blast cleared a circle approximately 55-60 feet in diameter and created a small crater in the center.

5. It would have been extremely difficult to land a helicopter in the cleared area, however placing a second charge approximately 60 feet from the location of the first would give a cleared area approximately 160 feet long by 60 feet wide.

6. The results of this experiment are not definitive. No landings were made and no occasion has arisen where this method of LZ clearing was required, however, it is believed that this offers a practical and satisfactory way to clear landing zones in elephant grass or bamboo without first placing troops on the ground.

CONFIDENTIAL