39th ENGTIIEER BATTALION (COMBAT) (ARMY) APO 96316

EGDBA-E

15 November 1966

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 October 1966

THRU: Commanding Officer 45tb Engineer Group (Const) APO 96316

> Commanding General 18th Engineer Brigade APO 96307

Commanding General United States Army, Vietnam ATTN: AVC-DH APO 96307

Commander In Chief United States Army, Pacific ATTN: GPOP-MH APO 96558

TO: Assistant Chief of Staff for Force Development Department of the Army (ACSFOR DA), Washington, D.C. 20310

SECTION 1, Significant Organization Activities:

a. General

(1) 39th Engr Bn (C)(A): At the beginning of the report period, the Battalion less Task Force Schultz was located at the Battalion base camp on the coastline South of Tuy Hoa, CQ 245377. The major activity during the initial part of the period was operation John Paul Jones. Upon conclusion of John Paul Jones, operation Seward was the major activity for the Battalion.

(2) Operation John Paul Jones commenced on 24 July 1966. The primary tasks assigned this Battalion consisted of:

(a) Providing engineer support for 1st Brigade, 101st Airborne Division and 2nd ROK Marine Brigade who were operating along Route QL l South of Tuy Hoa, opening Route QL 1 to the pass at Vung Ro.

(b) Constructing a port facility and access road at Vung Ro.

This operation concluded 5 September 1966.

(3) Operation Seward commenced on 25 August 1966 and consisted of providing general engineer support to the 1/101st Abn Div, which conducted operation to protect the rice harvest in the Tuy Hoa and Tuy An areas. This operation concluded 21 October 1966.

(4) Task Force Schultz - This Task Force was composed of the following elements:

- (a) Company A, 39th Engr Bn (Reinforced)
- (b) Equipment from HHC, 39th Engr Bn
- (c) Equipment from 572nd Engr Co (LE)

Task Force Shultz landed at Vung Ro and began clearing of Beach Bravo on 25 July 1966. This task force was transported from Cam Ranh Bay on the LST Henry County, landing on Beach Bravo at 0630, D41(25 July 1966).

The port area was constructed on a sandy beach composed of large, well rounded, uniformly graded sand particles. The hardstand shorage was cut from the thickly matted, tropical jungle. The access road was cut along a heavily jungled mountain side. This mountain side was covered with a very unusual geological formation of large granite boulders, ranging up to 20 tons in weight, these boulders were a constant construction problem. At times, two dozers were needed to move these boulders. The soil along the construction right of way was a clayey material which when wet became very unstable. During the dry season this soil did net present any problem, however with the arrival of the monsoons the road constructed became very slippery and many landslides occurred. It was necessary to have an excessive crown on the road and to have hand labor to clean the drainage ditches.

Extensive use of demolitions was necessary in this project to reduce some of the boulders to a manageable size and the removal of granite outcropping from the construction right-of-way. During the construction of the access road 180,000 pounds of explosives were used by Task Force Schultz. Additional demo teams were provided by Co B and Co C.

Task Force Schultz was disbanded on 20 September 1966 and the project was turned over to the control of the Company A Commander.

The port was opened to general use 25 September 1966 and was formally dedicated Port Lane, 16 October 1966. Facilities constructed were:

- (d) Two concrete LST ramps
- (e) Barge unloading facility of Navy Cubes
- (f) 9,000 SY of open storage hardstand
- (g) 20' x 50' wood frame administration building
- (h) 8100 feet of two lane, all weather road

(5) Company A: On the 8th of October 1966, Co A was replaced by Co C at Vung Ro and displaced to VIC Bn HQ's to maintain their equipment and prepare for their next mission.

On the 17th of October 1966, the company moved to Tuy Hoa North Airfield and proceeded to upgrade route QL #1 North from Tuy Hoa to Tuy An. The unit built the following bridges:

(a) 60' M4T6 dry span with intermediate Baily Panel pier

(b) 30' Class 60 dry gap

(c) Replaced two M4T6 dry gap bridges with 20' span timber trestle

bridges

(d) Improved by-passes along the route

On or about 25 October 1966, the unit started to shift operations out Route LTL 7B West. The Company moved its CP to BQ 955415 on 30 October 1966. From the 25th of October 1966 to the end of the reporting period the following tasks were accomplished.

(e) By-passed blown bridge with two 45 M4T6 dry spans and 60' M4T6 balk over an aqueduct.

(f) Put in 5 float M4T6 bridge

(g) Prepared by-passes and improved road from Tuy Hoa to Cung Son

(h) Swept Route LTL 7B for mines and other demolitions daily from 25 October 1966 to 3l October 1966.

(i) Conducted platoon size ambush patrols to prevent emplacement of mines, demolitions on Route LTL 7B. Discovered one mine, missed one mine which destroyed 2½ ton truck.

(6) Company B: This unit was initially located VIC the Bn CP. From the beginning of the reporting period until 13 October 1966, this unit improved Route QL #1 South from Tuy Hoa to Vung Ro. The following work was accomplished.

(a) 104' M4T6 dry gap with three intermediate piers

- (b) Repaired a dropped concrete span
- (c) Constructed 100' DS Bailey Bridge

Temporary helipads were constructed at Tuy Hoa South Airfield for the 10th Avn Bn. This was completed on 2 August 1966. Following these combat support missions, the company started work on the Tuy Hoa cantonment area. This mission consisted of preparation of a standard 2 cantonment area. During this same period, one platoon was placed in direct support of 1/327 Inf Bn, 1/101 Abn Div. This platoon constructed pioneer roads, preparation of defensive positions, mine sweeping and demolition operations. The company conducted daily mine sweeping operations from CQ 201350 to CQ 268231.

On 13 October, the company was relieved of its base development mission and was given mission to proceed to Dong Tre VIC CQ 914704 to construct C-130 airstrip. The unit proceeded up QL #1 north of Tuy Hoa repairing by-passes and onto LTL 6B repairing by-passes. At this time the company's mission was changed and the unit returned to Tuy Hoa and proceeded onto LTL 7B to Cung Son. Upon their return on LTL 6B the by-passes flooded and a 4 pontoon LTR was airlifted to be emplaced on LTL 6B to assist Company B crossing these flooded by-passes. This LTR was airlifted by CH-47 helicopters on 21 October 1966.

On its way to Cung Son, the unit repaired the route and constructed a LTR at CQ 162458 and a M4T6 raft at BQ 953415. The unit reached Cung Son on 26 October 1966 and proceeded to work on the airfield. The scope of work at the airfield consisted of placing a laterite pad on top of a rock, sand cement base and covering this with T-17 membrane surface. All work is being done on top of a existing pioneer airfield to upgrade it to an all-weather, 2500', Cl23 airfield. Mine sweeping operations continued daily on Route LTL 7B.

(7) Company C: This unit was initially located VIC the Bn CP. From the beginning of the reporting period until 20 August 1966, this unit worked on QL #1 south from Tuy Hoa to Vung Ro. A Class 60 float bridge was constructed at CQ 201351. This bridge provided a crossing for military traffic across a 844' water gap. The bridge equipment and technical support was provided by the 543 Engr Co (FB). The unit constructed by-passes and made repairs on this route during this period.

At this time, Company C's effort was diverted to construction in the Tuy Hoa cantonment area. Road construction was in conjunction with development of cantonment areas and support facilities at Tuy Hoa cantonment. Unit constructed 9.6 miles of road in development of a ROKA Bde cantonment area, 0.2 miles in a US Bde area, and 2.5 miles of access road. The area consisted of sand and sand dunes covered with brush and cactus. After clearing and shaping the stabilizing was accomplished by placing six-inch lift of laterite material. Laterite was obtained locally and found to be of poor quality due to its high clay content. This tended to become slippery and muddy when wet. A one-inch lift of sand was spread over the road surface with a grader and improved the road conditions. During the heavy rains and the monsoon season and heavy traffic the roadway broke down and soon became impassable. Decomposed granite material was obtained from a different location and found to be of excellent quality and produced a roadway trafficable under all weather conditions and required very little maintenance.

During the report period this unit constructed three (3) buildings as part of the ROKA cantonment area development at Tuy Hoa South. These included a TOC building and two (2) briefing rooms. American and ROKA troops were utilized as construction laborers, and NCO's used as supervisors. This enabled the Koreans to gain experience necessary to effectively maintain a "self-help" construction program for construction of subsequent buildings when material becomes available.

This unit constructed a heliport during the reporting period to service two (2) AML helicopter companies. The heliport was part of the Tuy Hoa South Base Development Plan. Sixty-nine acres of flat sandy terrain were cleared of cactus and brush. After clearing the 330,000 SY of area it was treated with 0.8 gallon per square yard of peneprime. Sixty-four helipads were placed on the treated area in rows of sixteen (16) pads each. Each pad was 24 x 24 feet. Unit also constructed two (2) refueling facilities each capable of refueling four helicopters simultaneously. They consisted of a cross shaped PSP pad of 150 feet by 150 feet placed on a treated peneprime area.

Minor repairs were conducted at Tuy Hoa South airfield. These consisted of tacking down the edges of the PSP turn-around at the end of the main runway and repair of the T-17 membrane storage area adjacent to the runway. The PSP turn-around were damaged by the impact of heavy incoming C-130 aircraft. Repair was accomplished by means of U-Shaped pickets driven through the edge of the PSP pad and flared outward near to the top to anchor the PSP as they were driven into the runway. Repair of the T-17 shortage pads was hindered by the lack of adhesive for applying patches to holes and tears.

On the 11th of September, 3rd Plat, Co C, supported 2/327 Inf Bn, 1/lolst Abn Div, on QL 1 and LTL 6B. This included opening of road and constructing and clearing by-passes. They also built a 4 pontoon LTR at CQ 36 to transport rice across river from areas to East.

This unit was assigned on the 8th of October, the maintenance of a newly constructed 8,100-foot road providing access to the Vung Ro Port facility from CQ 281229. Maintenance consisted primarily of clearing mud and rock slides from the ditches following the heavy rains. A truck mounted crane with a clam shell attachment proved invaluable for just such tasks. It was found that the use of a dozer to clear rock slides necessitated resurfacing of the road with rock at the location. Other maintenance requirements were; locating and opening natural French drains in the ditches and the improvement of existing drains, continued shaping and grading of the road surface and the ditches to improve drainage, repair of those sections of the road damage by heavy equipment, repair of washouts, and improvement of the drainage along the road shoulders.

On 10th of October, 2nd Plat, Co C arrived at Cung Son, to begin repair of airfield. The repair mission of this platoon was up graded to a rehabilitation and extension mission with Company B taking control of the project on 26 October 1966.

Mine clearing operations were conducted on a daily basis along QL 1. South of Tuy Hoa to the Vung Ro Port facility and the access roads to the various cantonment areas. This operation was begun at first light in order that the roads could be reported clear prior to 0700 hours. A method of visual

checking and selected sweeping was used to expedite the clearing operation. No mines were located and no incidents involving enemy mines were reported during the report period.

(8) 553rd Engineer Company (FB): This unit was attached to the Battalion at the beginning of the reporting period. On October 19, 1966, the Company was detached from the Battalion and came under the control or the 45th Engineer Group (Const). During the reporting period, the disposition was as follows:

(a) One platoon at Cam Ranh Bay under the control of the 35th Engr Gp (Const) maintaining the 1125 feet MY CA float bridge.

(b) Two platoons at Qui Nhan under control of the 937th Engr Gp (0) in general support of the 1st Cav Division in the Bong Son area.

(c) The remainder of the unit remained at Tuy Hoa supporting the 39th Engr Bn (C)(A).

While under the control of the 39th Engr Bn (C)(A) the company accomplished many supporting missions for the Battalion. The company accomplished their primary mission of providing bridging as follows:

(d) Providing Class 60 bridging and Class 50 trestles for the construction of an 844' bridge across the BN NHAM River. Upon completion of the bridge, this company maintained the bridge and provided traffic control.

(e) Provided M4T6 dry gaps on routes QL 1 and 7B. A total of 470' of bridging was emplaced along these routes.

(f) Provided LTR at CQ 066736 in support of Operation Seward, at CQ 039724 in support of Co B's return from Dong Tre and at CQ 162462 in support of Co B's move to Cung Son.

During this reporting period the unit accomplished their secondary mission of providing transportation as follows:

(g) The resupply of elements of the 39th Engineer Battalion (C)(A) constructing the airfield at Cung Son, port facilities at Vung Ro and maintaining and improving MSR'S.

(h) Furnishing transportation to Tuy Hoa Sub Area Command to transport supplies from Vung Ro to the logistic storage area.

An additional mission which was assigned to this unit as the construction of a POL pipeline from Vung Ro Port North along the RRline to a 390,000 gal bladder farm at CQ 244274. This 6" POL pipeline was 19,000' in length.

(9) 572nd Engineer Company (LE): This unit was attached to the Battalion at the beginning of the reporting period. On October 19, 1966, the company was detached from the Battalion and came under control of the 45th Engineer Group (Const).

On the 1st of August, the company minus part of the support platoon,

was located in the VIC of the Bn CP. Equipment left at Cam Ranh Bay were as follows:

- (a) 12 CY and 18 CY scrapers
- (b) Rock crusher
- (c) 10-ton crawler cranes
- (d) 5-ton tractors and 25-ton lowboys

This equipment was left behind due to the non-availability of sufficient shipping. One LST was used initially to move the part of unit, however another one was needed. Due to the fact another LST could not be obtained, the remainder of the company did not close at Tuy Hoa until 15 August 1966. The unit supported the Battalion with construction equipment and dump trucks. The unit supported the following projects of the 39th Engr Bn (C) (A):

- (a) Access road and port facilities at Vung Ro
- (b) Up grading and maintenance of routes QL l from Vung Ro

to Tuy An, LTL 7B from Tuy Hoa to Cung Son and LTL 6B from Tuy An to La Hai.

- (c) Airstrip at Cung Son
- (d) Road construction and maintenance in the Tuy Hoa cantonment area.
- (e) Clearing for standard 2 cantonments in the Tuy Hoa area

They had the following projects under their control.

(f) A rock quarry at CQ 224308 which produced rock for the Vung Ro access road and the access road into the Tuy Hoa cantonment area. During a tenday period, 20 September to 30 September, approximately 4000 cubic yards of 5" (-) rock was produced. This output enabled the access road at Vung Ro to open to general use on 25 September.

(g) Three borrow pits were opened by this unit during the reporting period and were used throughout the reporting period for fill and road surfacing.

(h) Three shallow wells were dug with a clamshell attachment on a 20ton truck mounted crane to provide water for the Tuy Hoa cantonment area.

b. Training: Throughout the period the Battalion worked six and one-half (6½) or seven (7) days each week, with housekeeping and staff activities proceeding into the evening of each day. When commitments permitted, the companies were required to schedule training and maintenance on Sunday morning. Preferably, the entire Sunday was intended to serve as a day for training, commander's time, maintenance, recreation and relaxation. As indicated in paragraph below, this schedule was not adhered to.

c. Movement: The Battalion did not move during this reporting period.

The three-line companies moved during this period as covered in paragraph a. A number of observations can be made from the companies' movements:

(1) Companies should keep their equipment and other supplies to a minimum. Some movements of the units were impeded to an excess amount because of heavy impediments.

(2) Companies should keep a company rear at the Battalion camp to enhance the resupply of their unit and to control the constant flow of personnel.

(3) Careful prior planning of the movement is the only way to insure a good move to a new location.

d. Logistical support: During this reporting period, support was received from the following organizations.

(1) TUY HOA SUB-AREA COMMAND-ALL Class I, Class III, and Class V. Limited Class II and IV support included field fortification and barrier material.

(2) CAM RANH BAY DEPOR - Remaining Class II and IV were provided.

Shortages occurred during the reporting period of:

- (3) Class I, A, B and C rations
- (4) Class III, specifically OE-30, OE-50, MOGAS and Diesel
- (5) Class IV, construction materials
- (6) Class V, demolitions

Difficulty was experienced in moving supplies from Cam Ranh Bay Depot to Tuy Hoa and this lack of adequate transportation is the major contributing factor to the shortage of all classes of supplies during the period of the report.

e. Summary of Activities

Tr	aining Days	Troop	o Movement	0peration	S
ННС	5		0	87	
C0 A	1		3	88	
CO B	5		5	82	
C0 C	1		5	86	
553 Engr Co (FB)	0 4		0	88	
572 Engr Co (LE)	5		0	87	

<u>SECTION 2, Commanders Recommendations, Observations and Lessons Learned:</u>

a. Part 1, Observations (Lessons Learned)

(l) Personnel:

<u>Indigenous Labor</u>

Item: Control of AIK Laborers

Discussion: The tremendous demand for crushed rock in Viet Nam dictates the necessity for 24, hour operation of rock crushers. The TOE for Engineer Company (LE) provided only the minimum number of personnel required for crusher operation on a 24-hour basis. Local nationals have proven extremely proficient as powder men and rock driller helpers with only a minimum amount of training. Given the incentive of learning a job that could be of future value, approximately 50% of the personnel tried in these positions developed job proficiency comparable To American Military personnel within two-three weeks.

<u>Observation</u>: The communication problem is the greatest single problem with the indigenous labor.

Item: Rotation of Personnel

Discussion: This unit having deployed intact in December 1965 is scheduled to rotate a large percentage (approximately 50%) of its personnel during the month of December 1966. If complete rotation were to take place in December, many administrative problems could arise, and operations could suffer as a result on the large turnover of personnel. To affect a fairly smooth transition four steps are taken. First, a slight overstrength was assigned to Battalion (approximately 10%); second, approximately 10% of the December rotatees were curtailed to November; third, approximately 10% of the December rotatees were interchanged with other units during October and November.

<u>Observation</u>: The net result of this program reduced the December loses to about 25% of the total strength. A program such as this would be more beneficial if started shortly after a unit's arrival in-country.

(2) <u>Operations</u>:

Operation of Heavy Equipment

Item: Heavy equipment and 5-ton dumps:

Discussion: Many vital operational hours are lost in the utilization of heavy equipment to include 5-ton dump trucks as result of equipment getting stuck while operating along narrow roads through rice paddies. Many hours are lost dispatching 5-ton dumps with an operational winch or a dozer to the disabled vehicle.

Observation: When practical equipment should be operated under the "buddy system" so that a minimum of time is lost extracting the vehicle. All 5-ton dump trucks should be equipped with a winch and high priority should be placed on having all winches operational.

Item: Combat Support Mission

<u>Discussion</u>: In many combat type support missions the area of operation requires at least one platoon size force to secure the work site. When the company is assigned several platoon size missions, either the security is

dangerously affected or the missions must be delayed to some extent.

<u>Observation</u>: Whenever possible, security should be provided by supported Infantry units.

<u>Item</u>: Use of Peneprime:

<u>Discussion</u>: Prop blast from C-130 aircraft in the warm-up areas has blown sand out up to three feet in depth.

Aviation Support

Item: This Battalion does not have aviation support.

Discussion: Support from local aviation units was not sufficient. The only aviation unit in this area is the 10th Aviation Battalion. This unit was in general support of the 1/l0lst Airborne Division, therefore priority use of their aircraft was 1/101. Whenever an aircraft requirement was placed on the 10th Aviation Battalion, the request was not full filled. Due to the fact we were in support of the 1/101 Abn Div, throughout the reporting period, we were able to get limited aircraft support from their daily allocation. Due to our units usually being from 20 to 40 Kilometers from the base camp, resupply, coordination, and command is very difficult to provide with land transportation.

<u>Observation</u>: This organization requires as a minimum of one OH-13, or UH-1B in direct support.

<u>Communications</u>

<u>Item</u>: Radios

Discussion: The battalion's operations at this time are seriously hampered by the fact that it does not have the new series of AM and FM radios. The present TO&E does not authorize FM equipment for certain Key staff officers (X0, S-3 S-4, Commo Off) and at this time communication between the staff and the battalion and company commanders is on both the old and new serles of radios. Due to the age of the old series and the differences in range leads to an unsatisfactory situation. On the 19th of October, this unit forwarded to 45th Engr Gp (Const) requests for equipment in Excess of Authorized Allowances, USARV Form 47, for the new series of AM and FM radios.

<u>Observation</u>: These radios are needed for the battalion to fully perform its primary mission: engineer combat support of tactical operations.

(3) Logistics:

<u>Supply</u>

<u>Item</u>: Supply of Organizational and support Maintenance Repair Parts

<u>Discussion</u>: The resupply of organizational and support maintenance of repair parts continues to be inadequate. The support maintenance activity

available to this unit is a detachment with very limited supply capabilities, with no stockage level and nearest consolidated technical supply facility is 100 miles from this unit. Due to the separation, transportation of repair parts is the major problem.

<u>Observation</u>: A complete support maintenance facility should be established in the Tuy Hoa area to provide parts and maintenance support to all units in this location. Transportation of parts from Cam Ranh Bay Depot will be its biggest problem.

<u>Item</u>: Inadequate Air and Sea Transportation

Discussion: This unit continues to be hampered by the inability to move required supply items from the depot at Cam Ranh Bay to Tuy Hoa. All items must be transported by air lift or sea lift, and the average time of delivery is from 30-90 days. This delay impacts critically on this unit's ability to perform its assigned mission of combat support.

<u>Observation</u>: The air-lift and sea-lift capabilities of the transportation system from Cam Ranh Bay to Tuy Hoa must be increased to provide the responsiveness required.

<u>Item</u>: Fuel Resupply Capability

Discussion: The engineer companies of the battalion are normally located from the base camp of the battalion. The TOE of this battalion does not provide a fuel resupply capability, yet it is urgently needed. On 28 February 1966 this unit submitted a request for Equipment of Excess of Authorized Allowances USARV Form 47, for 2 ea Truck, Tank fuel servicing 2½ T, 6 x 6, 1200 gal. This request was approved on 18 March 1966, by HQ USARV. To date the equipment has not been received. Presently 5-ton dump trucks have to be diverted from the primary mission of hauling earth to resupply the companies with fuel.

<u>Observation</u>: This fuel servicing truck should be provided without further delay to alleviate this problem area.

Mine Sweeping

<u>Item</u>: Current mine detectors are missing VC mines

<u>Discussion</u>: During the latter part of the reporting period, the battalion experienced considerable difficulty with detecting mines emplaced on route LTL 7B approximately 10 Kilometers west of Tuy Hoa. The detector currently being used is; Detecting Set, Mine, Polan Model P153.

The route is in question, has a base composed of a soil with a high metallic content. The road bed is also full of miscellaneous metallic objects. Those two factors cause a constant, background sound over the headset.

The mines the Viet Cong are using are approximately 20 pounds in weight, wrapped with cloth and bamboo trips and contain very little metal. The only metallic parts are a flashlight battery and a firing cap.

After a series of incidents in which vehicles were destroyed, Co A ran a

series of tests to determine whether or not the detector was performing properly. It was determined that when the VC mines were buried 8" below the ground, the detector organic to this unit, would not detect the mine.

As a precautionary measure, the engineer units of this battalion are required to follow the sweep teams with loaded 5-ton dumps. This is done to detonate any mines missed by the sweep teams. Since the VC mines are buried so deep, the earth bridges over the firing device until the bridge is broken by repeated passes over the mine. At such time the mine explodes. Therefore, one cannot tell that the road is clear simply because it has been swept and traffic has been traveling upon the road.

<u>Observation</u>: A method needs to be found to detect these deeply buried mines or another type detector be employed.

b. Part II, Recommendations:

- (1) Personnel:None
- (2) Operation:

(a) When units are in support type combat missions that security be furnished other than from the engineer unit.

(b) When peneprime is used for warm-up pads that one gallon be used per square foot.

- (c) This battalion requires one (1) organic helicopter.
- (d) This battalion requires the new series of radio equipment.
- (e) Fuel tankers are required in excess of TO&E.

(f) An inch of sand be placed over all laterite read to improve trafficability.

T R FULTON LTC CE Commanding

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EGD-3 (15 Nov 66) 1st Ind SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 October 1966

HEADQUARTERS, 45th Engineer Group (Const), APO 96238, 17 November 1966

- THRU: Commanding General, 18th Engineer Brigade, APO 96307 Commanding General, United States Army, Vietnam, ATTN: AVC-DH, APO 96307 Commander in Chief, United States Army, Pacific, ATTN: GPOP-MH, APO 96558
- TO: Assistant Chief of Staff for Force Development, Department of the Army, (ACSFOR DA), Washington, D.C. 20310

1. Concur with observations of Commanding Officer, 39th Engineer Battalion (C) except:

a. ITEM: Supply of Organizational and Support Maintenance Repair Parts.

The 136th Maintenance Company has arrived at TUY HOA since this comment was made. Although they bring with them a tech supply capability which should improve administration of repair parts requisitioning, they do not have sufficient mechanics available to adequately support the increased density of engineer construction equipment arriving in the area. It is recommended, that Logistics Command resurvey to determine what is needed at TUY HOA to provide adequate support maintenance.

b. ITEM: Inadequate Air and Sea Transportation

The demands for huge quantities of bulk construction materials needed for the TUY HOA area can only be met through diversion of deep craft vessels to PORT LANE. Diversion of one vessel containing cement and asphalt has already occurred. Continued diversions on a programmed basis should be adequate to meet bulk demands and at the same time decrease demand for overcommitted coastal shipping.

Concur with recommendations of Commanding Officer, 39th Engineer Battalion
 except:

a. b(2)(b) In using peneprime as a dust palliative, the amount of peneprime to be used must be determined at the site and can be determined only after an evaluation of the soil conditions.

b. b(2)(f). A general rule to place peneprime or sand over all laterite roads does not properly take into account the varied composition and types of laterite. In each and every case, the type of laterite being used must be taken into account and individual solution achieved for each trafficability problem.

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3. As with other Combat Engineer Battalions in RVN, the missions assigned to the 39th Engineers varied from cantonment construction through complex road building to front line combat support. This wide variety of activity requires the utmost in flexibility on the part of the Battalion's personnel and the use of all types of construction/combat engineer equipment. All reviews of the Combat Engineer TOE and mission assignment must take into account this great variety of missions being assigned to engineer units in RVN.

> George M. Bush Lt Colonel, CE Commanding

cc/39th Engr Bn

AVBC-C (15 Nov 66) 2d Ind SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 31 October 1966

Headquarters, 18th Engineer Brigade, APO 96307

TO: Commanding General, United States Army, Vietnam, ATTN: AVC-DH APO 96307

1. The subject report, submitted by the 39th Engineer Battalion (Cbt), has been reviewed by this headquarters and is considered an adequate coverage of organizational activities for the quarter reported.

2. This headquarters concurs with the observations and recommendations of the submitting and indorsing commanders, subject to the following comments:

a. Section 2. Part II, para b(2)(a). Combat Support Missions. Commanders at all levels are continuing to request relief of security requirements, which overtax their in-house resources. Security is provided in Corps Tactical Zones (CTZ), by maneuver elements when and where possible.

b. Section 2, Part II, para b(2)(c). Concur with battalion commander's requirement for organic helicopter support. Operational experience within the RVN has proven a definite need for an organic utility helicopter, in each engineer battalion. TOE 5-36D authorizes an observation helicopter and a request has been submitted by this headquarters to CG, USARV for utility type helicopters for engineer groups and battalions of this command.

c. Section 2, Part II, para b(2)(d). New Series Radios. This unit now has the new series ANPRC lOs and 46s and will continue to be issued others of the new series, as the depot receives stocks.

d. Section 2, Part II, para b(2)(e). Fuel Resupply Capability. Information received from 1st Logistical Command is that the 2½T, 1200-gallon tankers are in short supply in the RVN. However, if the unit has had the USARV Form 47R submitted and approved since March 1966, they should have submitted AF1 cards to their Supply Support Activity to get a determination on the status of their requisition. This informational guidance has been sent to the unit for action, if not already done.

e. Para 1a, 1st Ind. Repair Parts. 1st Logistical Command is reviewing and up-dating unit requirements for the Tuy Hoa area. Improvements are expected as the build-up is affected.

f. Para 1b, 1st Ind. Transportation. Diversion of shipping to Tuy Hoa is increasing as the port facilities become available.

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g. Para 2b, 1st Ind. Sand on Roads. Laterite varies throughout the RVN, native material availability dictates to some extent the proper selection of material for road surfacing procedure.

FOR THE COMMANDER:

WAYNE J. REYNOLDS Major, CE Adjutant AVHGC-DH (15 Nov 66) 3d Ind SUBJECT: Operational Report-Lessons Learned for the Period Ending 31 October 1966 (RCS CSFOR-65)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96307

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-OT APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 October 1966 from Headquarters, 39th Engineer Battalion (Combat) (Army) as indorsed.

2. Pertinent comments are as follows:

a. (C) Reference Paragraph A(3), Part I, Section 2, Items: Mine Sweepers, Page 11: A mine detector which does not rely on metal being present but on the presence of an explosive is under development at this time. The detection depth capability is not known.

b. (U) Reference Paragraph (2)(c), Part II, Section 2, Page 12 and Paragraph 2d, 2d Indorsement: This is a controlled supply item for which issues are made in accordance with command priorities when new trucks are received. Since these priorities are subject to continuing adjustment, no firm commitment can be made on when issues to the 39th Engineer Battalion will be completed.

c. (U) Reference Paragraph 2b, 2d Indorsment: USARV recognizes the need for organic helicopter support. However, because of the world-wide shortage of aviation assets, DA policy requires combat support and combat service support units to deploy without aviation personnel or equipment. This headquarters has no record of a request for or aircraft for the 39th Engineer Battalion; however, a request is being staffed on aircraft for the 18th Engineer Brigade.

d. (U) USARV has requested eight U-1A's for the 18th Engineer Brigade but has not received an availability date for the arrival of the aircraft in RVN. The eight U-1A's will be issued to the 18th Engineer Brigade commensurate with aircraft availability and within existing priorities.

FOR THE COMMANDER:

R. J. THORNTON 1st Lt. ACC Asst Adjutant General GPOP-OT (15 Nov 66) 4th Ind (U) SUBJECT: Operational Report-Lessons Learned for the Period Ending 31 October 1966 (RCS CSFOR-65) (U) - Hq 39th Engr Bn (Cbt)

HQ, US ARMY, PACIFIC, APO San Francisco 96558

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

1. This headquarters concurs in basic report as indorsed.

2. Reference paragraph 2d, 3d indorsament. USARPAC concurred in the USARV request for eight U-lA's for the 18th Engineer Brigade by USARPAC message GPOP-OP 31 DTG 030310Z Jan 67. To date, USARPAC has not been advised of DA approval of the request.

FOR THE COMMANDER IN CHIEF:

ROBERT L. BURCH Lt Col, AGC Asst AG