



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO
AGAM-P (M) (2 Dec 66) FOR OT RD

8 December 1966

SUBJECT: Operational Report - Lessons Learned, 39th Engineer Battalion
(Combat) (Army)

TO: SEE DISTRIBUTION

1. Forwarded as inclosure is Operational Report - Lessons Learned Headquarters, 39th Engineer Battalion (Combat) (Army). 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 paragraphs 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:

1 Incl
a/s

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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HEADQUARTERS
39TH ENGINEER BATTALION (COMBAT) (ARMY)
APO 96316

EGDBA-E

14 August 1966

SUBJECT: Operation Report on Lessons Learned, 1 May 66 to 31 July 66
(RCS: CSFOR-65)

T0: See Distribution

? SECTION 1. Significant Organization Activities:

a. General

(1) 39th Engr Bn (C): At the beginning of the report period, the battalion less Company C was located at the battalion base camp on the northeastern edge of the CAM RANH Peninsula. (CP 0631) The major activity during the initial part of the period was construction of the 6th Convalescent Center.

(2) On 1 June 66, B Company was released from the Convalescent Center project, and was given the mission of constructing a Standard II cantonment for a ROKA logistics base north of NHA TRANG. (CP 0458). While at NHA TRANG the company assisted in road openings on Hwy 21 and Hwy 1 with reconnaissance and tactical bridging missions.

(3) Headquarters & Headquarters Company was alerted on 8 July for a move by sea from CAM RANH to TUY HOA, to be followed by the remainder of the battalion. Headquarters & Headquarters Company departed CAM RANH on the USS Tulare on the 10th of July, arrived at TUY HOA, and began to establish a base camp at CQ 2437.

(4) B Company followed Headquarters to TUY HOA, leaving NHA TRANG on 13 July staging for ocean movement at CAM RANH on 14 July and arrived TUY HOA on 15 July 66.

(5) Immediately on closing at TUY HOA, the Bn became engaged in Operation John Paul Jones under 45th Engr Gp OPORD 5-66. This operation consisted of providing combat support for 1st Brigade, 101st Inf Div, and 2d ROK Marines Brigade who were operating along Rt 1 south of TUY HOA, opening Route 1 to the pass at VUNG RO, and constructing a port facility and access road at VUNG RO.

(6) Company A loaded on the LST Henry County on 24 July, landed at VUNG RO on 25 July, and immediately began construction of the port facility and access road to Route 1.

(7) Company C was located at TUY HOA during the entire period of the report. During the period prior to the arrival of the battalion main body, the company was called upon for combat support of the 101st Abn Div and the 1st Cav Div, and construction support for units in the TUY HOA area.

(8) The 572nd Engr Co (LE) remained attached to the battalion during the period. In May and June, the company supported the battalion in the construction of the Convalescent Center. On 3 July 66 the company moved to NINH HOA and began construction of a standard II cantonment area for ROKA. On 22 July the company began staging for the move to TUY HOA and moved by ship on 29 July 66. Operation JPJ was in progress, and the company immediately began operations consisting of heavy clearing and excavation on the access road to VUNG RO.

(9) The 553 Engr Company (-) was attached to the battalion on arrival at TUY HOA on 22 July 66. They immediately became operational and assisted in construction of a 500 ft class 60 bridge in support of Operation John Paul Jones. An eight (8) platoon company, the float bridge company has 3 platoons deta??ed- 2 in QUI NHON, 1 in CAM RANH.

b. Combat Support Operations: During this quarter the employment of the battalion in combat support operations became more frequent. One effect of this was to cause the S-2, S-3 section to revert back to their more classic roles, rather than be combined as an Engineer and Operations section. In addition, it appeared that the battalion, after four months of cantonment construction at CAM RANH, was slightly disturbed by the difference in the requirements of rapid pioneering tasks and more methodical building construction. This was overcome as the initial combat support tasks of all units were completed. To illustrate the diversity of combat support tasks performed during July the following list is compiled:

(1) Performed road recon and assisted ARVN in road opening Route 21 to BAN ME THOUT.

(2) Performed road recon and constructed Bailey Bridge on Route 1 north of NHA TRANG.

(3) Landed a reinforced company at VUNG RO and began beach improvement and pioneer road construction.

(4) Opened Route 1 to traffic from TUY HOA to VUNG RO by constructing class 60 Float Bridge, Foot Bridge, Tactical Rafts, and bypasses.

(5) Performed mine sweeping and road clearing operations as required by 1st Brigade, 101st Abn Div, and 2d ROK Marine Brigade.

(6) Constructed a hasty heliport for 64 UH-1 helicopters.

c. Construction:

(1) Convalescent center: The first planning of the convalescent center to involve the 39th Engr Bn was begun just prior to Feb 24, 1966. On Feb 24, 1966 a meeting was held at 35th Engr Gp Headquarters between the 35th Engr Gp and the 39th Engr Bn. At this meeting the following phases and BOD'S were agreed upon.

Phase 1- BOD Apr 15

Phase 2- BOD May 15

Phase 3- BOD June 15

Work actually began on March 22nd when the 572nd Engr Co (LE) began earth-work. On April 4th the first concrete pads were placed.

During the period May 1 to July 31 work was accomplished on erection of buildings, installation of water system and electrical system, and roads. The buildings were three types, wood frame, quonsets and Japanese Prefabs. The wood frame buildings consisted of tropical billets, administration, buildings, bath houses, latrines and a large mess hall. The quonset are to be used as treatment buildings and intensive care. Japanese Prefab are to be used for offices and storage. Eight Japanese Prefab were butted together to form four (4) buildings. This was accomplished with some difficulty in assembly even though they were prefab buildings.

The water system that was installed consisted of a 500 bbl tank and a four (4) inch service line. The tank was located approximately 45 feet above the level of the buildings and furnishes water to the system by gravity feed. The buildings serviced by this system are the bath houses, the mess hall and in the future the surgery building. Drainage for the bath houses is into rock sumps. A septic tank is to be built to service the mess hall and surgery building.

The electrical system consists of a 100 KW generator with a 100 KW as a back-up. Power lines were mounted on 25-foot poles. Interior wire was in-stalled as required.

The first week in June, B Company was moved to NHA TRANG leaving only one company to work on the Convalescent Center. On 24 July the remaining company minus one platoon was moved to VUNG RO. The platoon left behind is responsible for the completion of the Convalescent Center. The remaining work consist predominately of erecting tropical buildings. The estimated completion date is 31 August.

(2) ROKA Cantonment Area- NHA TRANG and NINH HOA: "B" company was moved to NHA TRANG to begin work on a ROKA Cantonment Area. This project consisted of bringing the area involved to a standard two (2) cantonment and was therefore predominately an equipment job. The movement of B Company was made without trouble. The company was supplied from CAM RANH and NHA TRANG. The construction required clearing of some 300 acres and construction of fifteen (15) km of pioneer road. B Company was relieved of this project when it was 60% complete and moved to TUY HOA.

A week following the move of B Company to NHA TRANG the 572nd Engr Co (LE) moved to the vicinity of NINH HOA to begin work on another ROKA cantonment. This job required clearing of 550 acres and construction of twenty-five (25) km of roads. The area was to be brought to standard two (2) cantonment requirements and was predominately an equipment job. The 572nd Engr Co (LE) was relieved of the project before it was completed and moved to TUY HOA.

d. Training: Throughout the period the battalion worked six end 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, commanders' time, maintenance, recreation and relaxation. As indicated in paragraph 9 below, this schedule has not been adhered to. Subjects taught during training classes were weapons, escape and evasion, command information, and personal conduct. As can be seen, most training was "on the job". One item of interest was the showing of current training films just prior to the showing of movie on any particular evening. This was well received by all the men and proved quite successful.

e. Movement: The battalion made a movement by sea from CAM RANH to TUY HOA. All in all, the moves were organized, and very little time was lost considering the amount of heavy equipment to be moved. A number of observations can be made:

(1) In moving a battalion to new location, it would be best to allow Headquarters & Headquarters Company to remain behind to coordinate the moves of the other companies before displacing. In our case Headquarters company moved first.

(2) If at all possible, transportation for the movement of a tactical unit should be coordinated thru command and staff channels, not thru normal transportation channels just as a routine request for movement of equipment or supplies. It was only through last minute efforts of battalion and group staff that the AKA Tulare was made available to move the bulk of the battalion.

(3) Early planning should be done to match the capacity (cranes, slings, hold, hatch) of the ship to the requirements of the equipment of the unit to be moved. The LST, which moved a portion of the light equipment company and one line company, seemed best suited to our needs especially since no dock facilities were available, and all equipment had to reach the AKA by LCM.

(4) The ability to load palletized and bulk materials was limited by the fact that the organization has no fork lift and only a limited amount of this type equipment was available for on and off load.

f. Logistical Support: After this unit arrived in TUY HOA, a definite lack of Class II and IV support appeared. Items such as expendables, repair parts, and construction materials were not available from the TUY HOA Forward Support Command. Upon investigation, this unit was informed by Headquarters, CAM RANH BAY Support Command, that a limited Class II and IV facility would be established by the TUY HOA Forward Support Command, and the remainder of this unit's resupply requirements would be obtained from the CAM RANH BAY Depot. Thus, the shortage of Class II and IV supplies was alleviated to some extent, but a transportation problem then arose. The only methods of resupply in TUY HOA are airlift and sealift, and this unit has neither mode readily available. Therefore, delays of from three (3) to thirty (30) days are experienced in obtaining supplies, and the unit's operations and projects are also delayed.

g. Summary of Activities:

	Training Days	Operation Days	Troop Movement Days
HHC	6	83	3
Co A	2	87	3
Co B	2	82	8
Co C	6	84	2
553d	6	82	4
572d	13	68	11

2. SECTION 2, Commanders Recommendations, Observations and Lessons Learned:

a. Part 1, Observations (Lessons Learned)

(1) Personnel:

Indigenous Labor

Item: Control of AIK Laborers

Discussion: The 572nd Engr Co (LE) employed up to 700 laborers a day for bush clearing operations in connection with the NINH HOA cantonment project.

The laborers did as little as the supervisors would let them and were reasonably industrious only when it was required of them or they stood to benefit from the additional effort.

Supply of workers was greater than the demand, yet some workers went on strike for higher wages (normal wage: 70\$P per day for laborer, 100\$P per day for foreman) on two (2) occasions. Strikes ceased to be a problem when strikers were sent home or not paid.

The morning pick up and "shape up" took an excessive amount of time until hiring the same workers and crews every day increased our control measures.

Workers would break early for lunch and prior to normal quitting time and were slow to assemble after lunch until a horn was used signifying starting and quitting times.

Workers would pick up a marked poker chip or playing card in the morning, slip away from the job and show up for pay in the evening. The number of AWOLs were greatly reduced by handing out different chits during the day and paying only the ones who held the new chits.

Observation: Communication is the greatest single problem encountered. The laborers did not have much incentive to do a good job. The main tools of control are monetary bonuses, deprivation of money by deductions, or firing.

(2) Operations:

Lifting Equipment

Item: Engineer units are required to move their own construction supplies.

Discussion: By the nature of its mission the Engineer Company is required to move much heavy equipment; eg construction supplies, Conex containers, etc., from one location to another and to load and unload its own trucks.

Observation: The Engineer Company has no rapid means of loading or unloading heavy supplies. A rough terrain fork lift is essential.

Tractor, HD 16

Item: Vulnerability of hydraulic lines.

Discussion: The hydraulic lines on the HD 16 tractor are easily damaged, and when damaged the tractor is deadlined. However, replacement hoses can be made if the proper equipment is available.

Observation: The HD 16 tractor would be more satisfactory if hydraulic lines could be modified.

Administration

Item: Administrative difficulties in Operations.

Discussion: Problem areas in this field consist mostly of reoccurring reports of which there exists inadequate regulations, directives, and SOP'S to enable personnel to submit these reports accurately and on time. In company size units, operation personnel are not authorized by TOE,

therefore, increasing the problem. In many cases, a squad leader or assistant has to be utilized in order to keep current records such as project folders, charts and graphs, posted and updated. The later problem may be eliminated by suggesting change to TOE 5-37? to authorize an Operation NCO in pay grade E-6 or higher. It is known that this position is necessary since all company size units utilize one and they are normally detailed from a squad leader position.

Observation: Reports and reporting have become increasingly demanding. The situation needs to be reviewed by higher headquarters with view to eliminating reports, simplifying reports, or augmenting operations sections.

Aviation Support

Item: This battalion has no organic aviation support.

Discussion: The increasing combat support missions of this organization requires helicopters to be available daily for liaison, transport, and critical resupply missions. Although aviation units have been given the mission of supporting our organization, the availability of aircraft on request has been very undependable.

Observation: This organization requires a minimum of an OH-13, OH-23m and UH-1 in direct support.

Communications

Item: This organization does not have adequate communications equipment.

Discussion: This unit presently operates with the old series of tactical communications equipment. Many of the items are worn out and are not being replaced. The radios that are operational cannot net effectively with supported units on tactical missions because of the difference in frequency range.

Observation: This battalion should be provided with the new series of commo equipment, (ANPRC 25, ANPRC 46, ANVRC 47).

(3) Logistics:

Supply

Item: Requisitioning of Class II and IV Supplies

Discussion: Many instances have occurred where items of supply in the Class II and IV category when requisitioned, are not available, and due out documents are returned to the unit. Upon physical investigation of the Depot Warehouses and storage areas, a large number of these items are actually in stock, but the depot has no record of the item. The item is then obtained by "walking" the due-out requisition through the various supply activities of the depot, until the issuing procedure is completed.

Observations: This method of obtaining supplies is time consuming, inefficient and it does not get the supplies to the using unit without extensive effort on the customers part.

Supply

Item: Supply of 2nd and 3rd Echelon Repair parts.

Discussion: Supply of 2nd Echelon repair parts for this organization has become increasingly difficult with the move to Tuy Hoa. The consolidated tech supply facility at Cam Ranh provides support, but the obvious disadvantage of distance and transportation make resupply very poor. A small support detachment is co-located with the battalion and performs 3rd echelon maintenance. This unit has the same problems obtaining parts as the battalion does.

Observation: Adequate transportation should be made available to supply the organization with repair parts. The support detachment should be given the capability and authority to provide parts support for this battalion.

b. Part II, Recommendations

(1) Personnel: None

(2) Operations:

(a) Rough Terrain Fork Lifts or fork lift attachments for front loader should be organic to all engineer units.

(b) HD 16 tractor hydraulic lines should be modified to prevent damage.

(c) Reports and administrative requirements should be examined to determine their value. If the reports are necessary, additional administrative personnel should be provided to battalions and companies.

(d) This battalion should have two (2) organic helicopters.

(e) This battalion should have the new series of radio equipment.

(3) Logistics:

(a) Proper inventory and stock records should be maintained at depots to ensure that supplies in stock can be located and issued.

(b) Air and sea transportation should be made available to insure timely delivery of supplies, ports, and equipment to this battalion.

(c) The maintenance support detachment serving this battalion should be given repair parts supply responsibility.

T R FULTON
Lt Col, CE
Commanding

DISTRIBUTION:

- 1- CINCUSARPAC
- 3- Deputy CG, USARV ATTN: AVC-DM
- 25- CG, 18th Engr Bde
- 15- CO, 45th Engr Gp

EGD-3 (14 August 1966)

1st Ind

SUBJECT: Operation Report on Lessons Learned, 1 May 66 to 31 July 66
(RCS: CSFOR-65)

HEADQUARTERS, 45th Engineer Group (Const), APO U.S. Forces 96312, 19 August 1966

THRU: Commanding General, 18th Engineer Brigade, APO U.S. Forces 96307
Commanding General, United States Army, Vietnam, ATTN: AVC (History),
APO U.S. Forces 96307
CINCUSARPAC, ATTN: GROF-MH, APO U.S. Forces 96558

TO: Department of the Army, Assistant Chief of Staff for Forces
Development, Washington, D.C. 20315

1. 39th Engineer Battalion (C) was engaged during the reporting period in an almost equal amount of Combat Support and construction effort. I heartily agree with the Battalion Commander's recognition that the transition from construction work to combat support requires an adjustment of both attitude and organization. This transition requires time and planners must consider this transition when programming Combat Support units for the combination construction-combat support mission.

2. Transportation within the theater of Operations becomes a distinct problem for a Battalion when its subordinate units are scattered and its logistics life line is limited to the sea or to the air. In this environment, numerous temporary modifications of the TOE become necessary and equipment augmentations desirable. Each case must be considered separately; I do not concur with the Battalion Commander's recommendations that the TOE for all Combat Battalions should be modified to include rough terrain fork lifts (or fork lift attachments for front loaders) and two helicopters.

GEORGE M. BUSH
Lt Col, CE
Commanding

AVBC-CG (14 Aug 66)

2nd Ind

SUBJECT: Operational Report-Lessons Learned for Period 1 May 1966 to 31 July 1966 (RCS: CSFOR-65) 39th Engineer Battalion

HEADQUARTERS, 18TH ENGINEER BRIGADE, APO 96307, 27 August 1966

THRU: Commanding General, United States Army, Vietnam, ATTN: AVC (History)
APO 96307
CINCUSARPAC, ATTN: GROF-MH, APO 96558

TO: Department of the Army, Assistant Chief of Staff for Forces Development,
Washington, D.C. 20315

This Headquarters concurs with this report subject to the following comments.

a. Operations:

(1) Reference Section 2, paragraph a(2): Lifting equipment. A rough terrain fork lift is included in MTOE being developed by this headquarters.

(2) Reference Section 2, paragraph a(2): Administration. This situation is presently under study. An MTOE is being developed by this headquarters.

(3) Reference Section 2, paragraph a(2): Aviation Support. Aircraft remain in short supply. The 18th Engineer Brigade has requested additional aircraft from USARV.

(4) Reference Section 2, paragraph a(2): Communications. The new series radios for this unit have arrived in country and will be issued in approximately two weeks. The old series radios will net with the new series. However, care must be exercised in selecting frequencies.

b. Logistics:

(1) Reference Section 1, paragraph e(4). 39th Engr Bn has been advised to submit a request for equipment in excess of authorized allowances for a rough terrain fork lift.

(2) Reference Section 1, paragraph f. Shipment and air transportation of construction materials is on a lower priority than movement of troops, food, and ammunition. Unless sealift and airlift capability at CRB is increased, no immediate solution to this problem is in sight.

(3) Reference Section 2, paragraph a(2): Tractor, HD-16. A MW0 has been put out to correct this problem. The Groups have been given the required information.

AVBC-CG

27 August 1966

SUBJECT: Operational Report-Lessons Learned for Period 1 May to 31 July
1966 (RCS: CSFOR-65) 39th Engineer Battalion

(4) Reference Section 2, paragraph a(3): Supply (Class II and IV Supplies). Cam Ranh Bay Support Command is in process of establishing inventory procedures and implementing use of data processing machines for more rapid and accurate stock control.

(5) Reference Section 2, paragraph b(3). This headquarters concurs with the comments as stated.

R.R. PLOGER
Brigadier General, USA
Commanding

AVHGC-DH (14 August 1966) 3d Ind
SUBJECT: Operational Report-Lessons Learned for the Period Ending
31 July 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. The Operational Report-Lessons Learned submitted by the 39th Engineer Battalion for the quarterly period ending 31 July 1966 has been reviewed by this headquarters.
2. This headquarters concurs in the comments contained in the basic report and the indorsements thereto, with the following exceptions:

a. Reference Section 1, Paragraph f, Page 5, Section 2, Part 1, Paragraph a(3), Page 8, Item: Supply of 2d and 3d Echelon Repair Parts, Section 2, Part II, Paragraph (3)(b), Page 9 and Paragraph b(2), 2d Indorsement: All movements of unit equipment and resupply are controlled in accordance with MACV Directive 55-4. Resupply from Cam Ranh Bay to Tuy Hoa has, in the past, been insufficient to meet certain requirements. Due to rough surf conditions at Tuy Hoa supply delivery has been limited to fleet support and some token support by ABT contract. On 5 October 1966 Vung Ro Bay was opened for LST service from Cam Ranh Bay. Vung Ro Bay is approximately 17 miles from Tuy Hoa by road. This road is open. The newly provided LST service is expected to provide adequate support to the Tuy Hoa area. The limited availability of aircraft precludes full support to all areas.

b. Reference Section 2, Paragraph a(2), Page 7, Section 2, Part II, Paragraph b(2)(d), Page 8 and Paragraph a(3), 2d Indorsement: Assignment or attachment of organic aircraft to all Engineer units in RVN is not physically possible due to the shortage of aircraft and personnel to man aviation elements. Direct combat support units are provided Army Aviation support from assets organic to major parent units who allocate these assets to subordinate units on an "as required" basis. The limited assets remaining to USARV are used in a general support role to expand the availability of aviation transport throughout the RVN. A study is now being conducted by this headquarters concerning aviation support to the 18th Engineer Brigade.

FOR THE COMMANDER:

W. R. AUTRY
1st Lt, AGC
Asst Adjutant General

GPOP-0T (14 Aug 66) 4th Ind
SUBJECT: Operational Report-Lessons Learned for the Period Ending
31 July 1966 (RCS CSFOR-65)

HQ, US ARMY, PACIFIC, APO San Francisco 96558

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

This headquarters concurs in the basic report as indorsed.

FOR THE COMMANDER IN CHIEF:

MAJ, AGC
Asst AG