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AGO D/A ltr, 29 Apr 1980

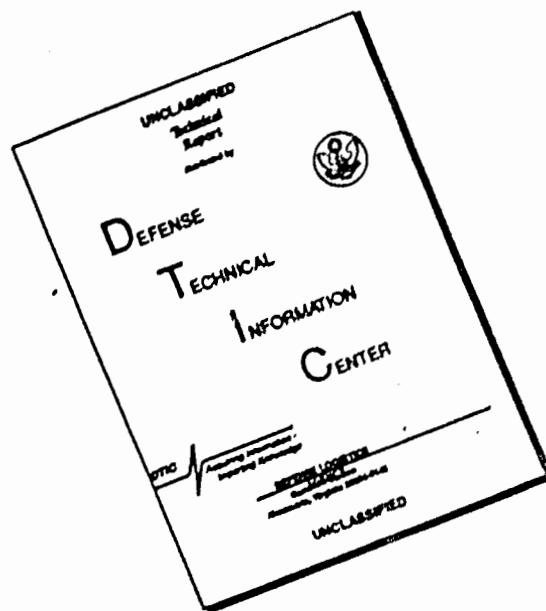
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DEPARTMENT OF THE ARMY  
OFFICE OF THE ADJUTANT GENERAL  
WASHINGTON, D.C. 20310



AD 824478

IN REPLY REFER TO

AGAM-P (M) (10 Oct 67) FOR OT RD-670295

19 October 1967

SUBJECT: Operational Report - Lessons Learned, Headquarters,  
84th Engineer Battalion (Construction)

TO: SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation by USACDC in accordance with paragraph 6f, AR 1-19 and by USCONARC in accordance with paragraph 6c and d, 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 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:

*C. A. Stanfiel*  
C. A. STANFIEL  
Colonel, AGC  
Acting The Adjutant General

1 Incl  
as

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11th Infantry Brigade (Sep)  
Commanding Officers  
198th Infantry Brigade  
Hq, 84th Engineer Battalion (Construction)

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HEADQUARTERS  
84TH ENGINEER BATTALION (CONSTRUCTION)  
APO 96238

EGD-BB-CO

14 May 1967

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly  
Period Ending 30 April 1967

THRU: Commanding Officer  
45th Engineer Group (Const)  
ATTN: EGD-3  
APO 96238

Commanding General  
18th Engineer Brigade  
ATTN: AVBC-C  
APO 96377

Commanding General  
United States Army Engineer Command, Vietnam (Prov)  
ATTN: AVCC-P&O  
APO 96491

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

Commander In Chief  
United States Army, Pacific  
ATTN: GPOP-OT  
APO 96588

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

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EGD-BB-CO

14 May 1967

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 30 April 1967

### Section 1, Significant Organization or Unit Activities.

During the reporting period the 84th Engineer Battalion (Construction) was active on the following projects:

a. Phu Tai Construction Support Complex, GP 45-18DC-66

The Support Complex is a combination of construction support capabilities of this battalion and includes a 225 TPH crusher, two 75 TPH crushers, and an asphalt plant. Current plans are to construct a concrete batch plant in the near future. During the period 1 February through 30 April approximately 61,000 tons of rock and 18,650 tons of hot mix asphalt were produced by the Support Complex with the expenditure of 65,865 US man-hours and 16,387 Vietnamese man-hours.

b. Eight-inch POL Pipeline, CD 65-204-06-T-5S

The project consists of two each eight-inch POL pipelines extending from a POL jetty located near the DeLong Pier in the inner harbor at Qui Nhon over a distance of approximately 4.1 miles along the beach facing Qui Nhon outer harbor to POL Tank Farm East. A pump station was erected near the POL jetty which consisted of four each, two-stage, six-inch POL pumps with accompanying fuel tank and administrative buildings. One eight-inch line has been completed and turned over to Quartermaster for use while construction of the second eight-inch line is held up pending selection of a new route. The completed line consists of coupled POL pipe along approximately two-thirds of its length with the remaining one-third being welded and buried. All road crossings are welded and buried. A major setback in construction was encountered when approximately 3000 feet of coupled line were destroyed by high seas along the beach. This section was replaced by welded and buried line, as it was impossible to move the line any higher on the beach due to the presence of a fishing village. In addition to the eight-inch line, two each six-inch spur lines have been constructed, connecting the POL center located at Qui Nhon Army Airfield to the newly constructed eight-inch line. This has been turned over to Quartermaster. To date 12,123 US man-hours and 1360 Vietnamese man-hours have been expended on the project.

c. 314-Man Cantonment (67th Evacuation Hospital), Bde 66-159DC-45

Work during this quarter consisted primarily of construction of a WOQ (65 women) which is nearly complete at this time. Project includes water-borne sewage, hot and cold running water, and an air conditioned lounge. Drainage facilities, one each 20' x 120' double story tropical frame building, and two each 20' x 48' quonsets have been completed by engineer troops. An additional 20' x 120' double story

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tropical frame building was constructed under the self-help program with engineer advisors. Total engineer effort expended to date consists of 21,074 US man-hours, 8980 Vietnamese man-hours, and 3166 equipment hours.

d. Qui Nhon Log Depot Reefer Storage, Bde 66-158DC-45C

The 40' x 110' refrigerated warehouse was completed during this quarter and turned over to depot personnel. A total of 33,942 US man-hours were expended on this project.

e. Well Water Fill Points, CD 65-200-01-T-Ma (Qui Nhon) and CD 65-202-1-Ma (Phu Tai)

Construction of one well water fill point located on the 85th Evacuation Hospital compound has been completed with the installation of the well with one each 79 GPM electric pump, one each 3000-gallon Japanese erdlator, one each 10,000-gallon elevated storage tank, one each 3000-gallon standard rubber storage tank and fill stand for trucks and water trailers. Plans for seven remaining well water fill points have been completed and construction will begin in the near future. A total of 828 US man-hours, 96 Vietnamese man-hours and 182 equipment hours have been expended to date on these projects.

f. Port Facilities (Increment 1) Road System, CD 65-201-05-T-6S

This project has consisted of clearing a 40-meter right-of-way from Route 440 to the sand causeway in Qui Nhon inner harbor and constructing a laterite road base eighteen inches deep and sixty feet wide. The two-lane road from DeLong Pier to the intersection with the causeway was widened to sixty feet. Total length of the road from Route 440 to DeLong Pier is 10,100 feet. Fill work remaining to be done consists of completing the approaches to the bridge under construction by the 523rd Engineer Company (PC). To date a total of 71,920 cubic yards of laterite have been hauled, compacted, and shaped. A total of 24,163 US man-hours, 1240 Vietnamese man-hours, and 11,737 equipment hours have been expended on the project. Future plans call for a six-inch lift of three-inch minus crushed rock in preparation for four each ten-foot lanes of hot mix asphalt.

g. Road Surfacing, GP 45-1C-67A

The project calls for paving approximately forty miles of road in the Qui Nhon area. To date the following roads have been paved: Phu Tai Quarry Access Road, QL-1 from Quarry Access to intersection with Route 440, Qui Nhon By-Pass I from Route 440 to 84th Engineer Battalion camp, and Qui Nhon By-Pass II from the battalion camp to the PX Storage Depot. This represents approximately ten miles of road which have now been paved. The standard roadway is 22 feet of hot mix asphalt with five-

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foot rock shoulders. For certain roads prefabricated concrete curbs will be placed beside 24-foot wide pavements to channel water run-off to drainage systems. This is necessary where narrow right-of-way and proximity of Vietnamese housing preclude construction of normal ditches. To date a total of 75,534 US man-hours, 12,462 Vietnamese man-hours, and 51,946 equipment hours have been expended on the project.

### h. Qui Nhon Drainage System, GP 45-15DC-67

This project to date consists of construction of two storm drainage systems. The 85th Evacuation Hospital drainage improvement will be a 24-inch corrugated metal pipe starting at a depth 3.7 feet below ground level on a 0.3% slope and proceeding through Qui Nhon Logistical Depot to the ocean. Approximately half way the culvert is enlarged to a 36-inch culvert. The outfall will be approximately eleven feet below ground on the beach in the vicinity of the BARC ramp. This system is designed to collect hospital drainage from a stagnant sump now in use and run-off from the Logistical Depot which has an inadequate ditching system. A second storm drainage system runs the length of Villa Road from a point 500 feet west of 41st Signal cantonment, discharging into the sea at the south end of Qui Nhon Army Airfield. This system consists of 24-inch culvert for two-thirds of its length and changes to 36-inch culvert for the remaining distance to the outfall. Construction of these systems is scheduled to begin immediately.

### i. 85th Evacuation Hospital WQQ, GP 45-18DC-67

Construction of the WQQ (65 women) is approximately 97% complete. This facility is nearly identical to the WQQ constructed at the 67th Evacuation Hospital. Design criteria were the same, but changes in the configuration were necessary due to real estate available. A total of 14,506 US man-hours, 2616 Vietnamese man-hours, and 1320 equipment hours have been expended to date.

### j. Six-inch Pipeline Qui Nhon - Phu Cat, CD 65-208-06-T-6S

This project required construction of approximately twenty miles of six-inch POL pipeline to reach from Qui Nhon's 193,000-barrel tank farm to the Air Force Tank Farm at Phu Cat. The pipeline route follows existing highways along Qui Nhon By-Pass I to Route 440, along Route 440 to the intersection with QL-1, north along QL-1 to the intersection with QL-19 and north along rail line to Phu Cat. A pump station is being constructed on Qui Nhon By-Pass containing four each, six-inch, two-stage centrifugal pumps. The piping for the pump station is arranged so that the station can pump to Phu Cat or to An Khe as needed. (An Khe pipeline follows the same route described above to the intersection of QL-1 and QL-19). An eight-inch pipeline connects the

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14 May 1967

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 30 April 1967

193,000-barrel tank farm to the pump station. Approximately 7500 feet of the six-inch line is welded and buried underground. A total of 21,945 US man-hours, 72 Vietnamese man-hours, and 4759 equipment hours have been expended to date. The project is estimated to be 90% complete.

k. Qui Nhon Logistical Depot, Bde 66-27DC-45

This project includes construction of open storage areas, shed storage, prefabricated metal warehouses, administration, security fencing, roads and drainage facilities. During this reporting period construction was completed on a 50' x 140' Pascoe warehouse, and the foundation was poured and initial construction was begun on another Pascoe warehouse of the same size. Since starting date of 1 Aug 65, 248,728 US man-hours, 37,743 Vietnamese man-hours, and 37,793 equipment hours have been expended.

l. Cantonment Construction, Bde 65-15C-45

This directive covers self-help construction throughout the Qui Nhon area. Presently approved plans call for the construction of 290,000 square feet (SF) of troop billets, 9200 SF of mess halls, 8400 SF of administration-supply buildings, and 10,860 SF of maintenance buildings. To date 75,275 US engineer man-hours, 78,942 Vietnamese man-hours, and approximately 444,046 self-help man-hours have been expended.

m. Cantonment Construction, Bde 66-142DC-45

Initially this directive called for design of self-help construction for a 3000-man cantonment in Valley A. Presently approved plans call for construction of 201,100 SF of troop billets, 9200 SF of mess halls and 1700 SF of administration-supply buildings. To date 32,891 US man-hours, 40,780 Vietnamese man-hours, and 5227 equipment hours have been expended.

n. Cantonment Construction, Valley F, Bde 66-143DC-45

This project covers self-help construction within Valley F. Presently approved plans include construction of 73,000 SF of troop housing, 4800 SF of mess halls, 1200 SF of administration-supply buildings, and 2490 SF of maintenance buildings. To date 26,574 US man-hours, 15,381 Vietnamese man-hours, and 211 equipment hours have been expended.

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SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly  
Period Ending 30 April 1967

## Section 2, Part I, Observations (Lessons Learned).

### OPERATIONS

1. ITEM: Erection of 10,000-gallon storage tanks

a. DISCUSSION: Accompanying instructions to the 10,000-gallon steel storage tank prefabricated by Eutler state that vertical staves should overlap the bottom staves by two (2) bolts. However, this causes the inner neoprene lining not to line up.

b. OBSERVATION: Experience proved that such a small overlap produces leaks. An overlap of sixteen bolts has proven a better guide for overlapping bottom and side staves.

2. ITEM: Laying pipe in sand

a. DISCUSSION: A vehicle capable of moving easily on sand was a problem while laying pipe on the beach.

b. OBSERVATION: A 5-ton bridge truck proved to work well in sand.

3. ITEM: Marking buried POL pipe

a. DISCUSSION: A permanent type marking system was found necessary to mark buried pipe, since temporary marks were usually stolen.

b. OBSERVATION: Welded pickets on the pipe provided a permanent marking system.

4. ITEM: Subgrade moisture content when placing concrete in hot weather.

a. DISCUSSION: Cracks in concrete slabs may result from evaporation and seepage of water into the subsoil.

b. OBSERVATION: Subsoil should be wetted to prevent unusual loss of water into the subsoil.

5. ITEM: Entrenching machine bucket line adjustment

a. DISCUSSION: It has been learned while digging in hard laterite that the adjustment on the bucket line should be six inches rather than four inches as called for in TM 5-3805-212-10. This adjustment will prevent bucket line breakage and bending.

b. OBSERVATION: Maintenance personnel and operators should be made aware of this adjustment for digging in laterite.

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Period Ending 30 April 1967

6. ITEM: D7E dozer track adjustment arm

a. DISCUSSION: It has been learned that the track adjustment arm lube fitting on the D7E dozer collects foreign matter and leaks, causing incorrect adjustment on tracks. Lube fitting should be kept as clean as possible at all times. Particular attention should be paid when greasing to prevent foreign matter from being pumped in with grease.

b. OBSERVATION: A regular lube fitting (FSN 4730-050-4230) should be used and an adapter can be made for the fitting.

7. ITEM: Prefabricated refrigerated warehouse testing

a. DESCRIPTION: Upon testing of the refrigerant piping system of a prefabricated refrigerated warehouse, several valves were found to be blocked and the heat exchanger was not completely assembled internally.

b. OBSERVATION: Neither the plans nor the instructions noted this fact. Detailed component inspection should be made prior to assembly and installation.

8. ITEM: Installation of a large culvert

a. DISCUSSION: Construction of permanent major culvert (three or more 48" or 60" diameter pipes) was hindered by water seepage into culvert beds.

b. OBSERVATION: Extreme care must be taken to provide satisfactory alternate stream flow during construction. Upstream damming, including sandbags and major fill, if necessary, must be sufficiently solid to prevent seepage into the culvert bed.

9. ITEM: Tack coating of base course

a. DISCUSSION: When all traffic could not be halted on roads being prepared for paving, some of the compacted three-inch minus base course areas had to be finish rolled several times due to the traffic during a period when the paving section was considerably behind the base course crew.

b. OBSERVATION: It was found better to apply several tack coats than to regrade and reroll. Initial tack coat should be applied as soon as possible after completion of base course. This permits traffic flow without deterioration of the base course.

10. ITEM: Water supply for earthwork compaction

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SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 30 April 1967

a. DISCUSSION: Due to rapid evaporation of water during dry season, it has been found that standard truck mounted water distributors augmented by gravity flow distributors made from Navy cubes cannot provide sufficient quantities of water over a sufficiently large area to achieve desired compaction of laterite surfaces.

b. OBSERVATION: A 5000-gallon POL semi-trailer with a gravity feed spray bar was used because its greater capacity permits several applications per tank load over a given area. This will assure sufficient retention of water by laterite while tanker is being refilled.

### 11. ITEM: Unsafe pintles on Chicago-Pneumatic crawler drills

a. DISCUSSION: An unsafe condition exists due to lack of hole for a safety pin on the pindle of Chicago-Pneumatic crawler drills.

b. OBSERVATION: A small electric drill with high speed metal cutting bit drilled through the pindle and latch to a diameter of 1/4" will permit a slightly kinked cotter pin to be used as a safety pin. An Equipment Improvement Report (EIR) is being submitted.

### 12. ITEM: 1000-gallon water distributor pump seals

a. DISCUSSION: Due to long waiting time for seals on the pumps of the 1000-gallon water distributor, a need for an expedient seal existed.

b. OBSERVATION: By machining the bakelite knobs used on 5-ton shifting levers, a very durable and reliable seal can be produced.

### 13. ITEM: Ram breakage on HD-16 dozers

a. DISCUSSION: Use of a dozer in quarry work created a continuous problem with rams being placed under undue stress, causing bending or breaking. There are two causes for breakage. One results from a rock being overridden, causing the saddle blocks to hang up with the push arm modification caught over the saddle block. If down pressure is applied while the ram is under this stress or if the ram catches on the upper grille hinge, it may be bent or broken.

b. OBSERVATION: The saddle block may be extended by welding short plates of steel to the existing saddle block. The upper grille hinge is simply taken off by an acetylene cutting torch and the grille tacked in place.

### 14. ITEM: Idler sprocket mount breakage

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14 May 1967

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly  
Period Ending 30 April 1967

a. DISCUSSION: The bolts which hold the idler sprocket on the Barber-Greene 837 dryer drum have loosened and/or sheared on several occasions.

b. OBSERVATION: The problem can be eliminated by drilling out the holes in the idler mounting plate and gearbox to accept 5/8" track bolts.

### 15. ITEM: Utilization of compaction equipment

a. DISCUSSION: Due to space limitation, it is often impractical to use the 13-wheel pneumatic tired roller on hot mix asphalt.

b. OBSERVATION: As soon as the asphalt reaches a temperature of 135° F, traffic should be placed on the road. Tests show densities are comparable to those obtained after rolling with a 13-wheel roller.

## ORGANIZATION

### 16. ITEM: Requirement for a wrecker

a. DISCUSSION: An engineer construction company in the theater of operations generally has equipment at two or more field locations plus its base camp. Additional (mobile) maintenance lifting and recovery equipment is required. This need can best be met by a five-ton wrecker. The wrecker capability of the field maintenance unit is not sufficient to meet the requirements of three line companies in the theater of operations.

b. OBSERVATION: One truck, wrecker, 5-ton, M62A2, should be authorized for issue on modified TOE to each engineer construction company (TOE 5-118D) in the theater of operations.

## LOGISTICS

### 17. ITEM: V-belt shortages for 75 TPH washing and screening plants

a. DISCUSSION: Due to the scarcity of vibrating screen drive belts for the Barber-Greene washing and screening plant, considerable down time would be expected.

b. OBSERVATION: Other belts of similar width but different lengths may be used if an extension to the mounting bracket for the electric motor is added, thereby permitting the motor to slide closer

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14 May 1967

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly  
Period Ending 30 April 1967

(or farther) from the vibrating head pulley.

18. ITEM: Non-availability of UD-18 diesel engine fuel injector pumps

a. DISCUSSION: An extensive search of supply channels revealed that UD-18 injector pumps were not available.

b. OBSERVATION: It was noticed that the injector pump from a TD-18 dozer could be modified to successfully adapt to the UD-18 by adding larger fittings to the fuel lines and reshaping the lines.

19. ITEM: By-Pass of fuel transfer pump on UD-18 diesel engine

a. DISCUSSION: Due to non-availability of fuel transfer pump for UD-18 diesel engine, an extended down time could be expected in the event of pump failure.

b. OBSERVATION: The transfer pump may be by-passed by placing a fuel tank on a higher level than the fuel surge tank and gravity feeding to the surge tank.

Section 2, Part II, Recommendations.

None.

1 Incl  
Organizational Structure

  
WILLIAM A RANK  
LTC, CE  
Commanding

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EGD-3 (14 May 67) 1st Ind SCM Winter/cwt/QML 133  
SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly  
Period Ending 30 April 1967

HEADQUARTERS, 45th Engineer Group (Construction), APO 96238, 20 May 1967

THRU: Commanding General, 18th Engineer Brigade, ATTN: AVBC-C, APO 96377  
Commanding General, United States Army Engineer Command, Vietnam (Prov),  
ATTN: AVCC-P&O, APO 96491.  
Commanding General, United States Army, Vietnam, ATTN: AVHGC-DH,  
APO 96307  
Commander in Chief, United States Army, Pacific, ATTN: GROP-OT, APO 96558

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

1. Operational Report-Lessons Learned of the 84th Engineer Battalion  
(Construction) for the Quarterly Period ending 30 April 1967, is forwarded.

2. Concur with observations. Additional comments are submitted below:

a. Items 13. and 14. EIR's (DA Form 2407) should be submitted  
on improvement's of this category.

b. Authorization of motorized rubber-tired rollers would permit  
better compaction of hot mix asphalt.

c. Item 16. MTO and E action should be initiated by unit when  
sufficient justification exists.



K. T. SAWYER  
Colonel, Corps of Engineers  
Commanding

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AVCC-C (14 May 1967) 2nd Ind Cpt Mills/hwg/DET-163  
SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65) for  
Quarterly Period Ending 30 April 1967

Headquarters, 18th Engineer Brigade, APO US Forces 96377 7 JUN 1967

TO: Commanding General, U.S. Army Engineer Command, Vietnam (Prev),  
ATTN: AVCC-P & O, APO US Forces 96491

1. This headquarters has reviewed the Operational Report - Lessons Learned submitted by the 84th Engineer Battalion (Construction), as indersed, and considers it an adequate account of the unit activities and accomplishments during the period ending 30 April 1967.

2. Concur with the observations and comments of the battalion commander, as indersed by the commanding officer, 45th Engineer Group (Construction), with the following additions:

a. Page 3, paragraph f, Road System, CD-65-201-05-T-6S, last sentence should read, "Future plans call for a six inch lift of three inch (minus) crushed rock in preparation for four each ten foot lanes of hot mix asphalt".

b. Page 6, item 4, Subgrade Moisture Content - subgrades should be sprinkled with sufficient water to provide a good reserve of moisture to aid in curing the concrete. This is especially important in those cases where the subgrade consists of a finely divided material to prevent the absorption of an appreciable amount of water from the concrete. If available, it is highly recommended to utilize polyethylene or building paper to provide a vapor or capillary water barrier and a surface to retain concrete laitance.

c. Page 6, item 5, Entrenching Machine - Adjustment should be maintained at 3 - 4" sag as per TM-5-3805-212-10. Crowding speed should be slowed to prevent over taxing the bucket line as described on page 18 of TM-5-3805-212-10.

d. Page 7, item 6, D7E Dozer Track Adjustment Arm - The 87th Engineer Battalion (Construction) has submitted an EIR on this item to replace the fitting with a regular zirk or common grease fitting. The installed fitting is cut off, and the common fitting is then brazed on. This procedure has worked well in all cases where the 87th Engineer Battalion has performed this modification.

e. Page 8, item 10, Water Supply for Earthwork Compaction - The 5,000 gallon semi-trailer is a salvage item obtained from the local property disposal officer as no longer usable for POL transport.

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13  
AVBC-C

SUBJECT: Operational Report - Lessons Learned (RCS GSPOR-65) for  
Quarterly Period Ending 30 April 1967

f. Page 9, item 15, Utilization of Compaction Equipment - if working space is a problem two or three axle tandem rollers should be utilized. Traffic should not be used for compactive effort since it normally cannot be regulated in regards to completeness of coverage or in time frame required for compaction.

g. Page 10, items 18 and 19, Fuel Pumps for UD-18 Diesel Engines, TM-5-3895-208-35F, gives the following information concerning engines for UD-18 to assist in determining correct part number for fuel injector pump. Engine model numbers for these items are: UD-18A-LQ28, UD-18A-LQ28A, and UD-18A-LQ43. Pump diesel injection, twin, part number (92679) 2537 16R92 is listed for all of the above listed engines.



C.M. DUKE  
Brigadier General, USA  
Commanding

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AVCC-P&O (14 May 67) 3d Ind CPT Hubbard/ccb/EH 404  
SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly  
Period Ending 30 April 1967

HEADQUARTERS, UNITED STATES ARMY ENGINEER COMMAND  
VIETNAM (PROV), APO 96491 14 JUN 1967

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

1. The subject report, submitted by the 84th Engineer Battalion (Const), has been reviewed by this headquarters and is considered adequate.

2. The comments made by the submitting and Indorsing commanders have been reviewed and this headquarters concurs, subject to the following added comment:

Section 2, Part I, paragraph 16, page 9 and paragraph 2c, 1st Indorsement. Unit now has approved MTOE authorizing 2 additional wreckers above TOE 5-115D for an Engineer Construction Battalion.

FOR THE COMMANDER:

  
RICHARD J. DUCOTE  
Colonel, CE  
Chief of Staff

USARV, ATTN: AVHGC-DH

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GPOP-DT (14 May 67) 5th Inc.  
SUBJECT: Operational Report for the Quarterly Period Ending 30 April 1967  
from HQ, 84th Engr Bn (Const.) (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 has evaluated subject report and forwarding  
indorsements and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

*J. M. Mullin*

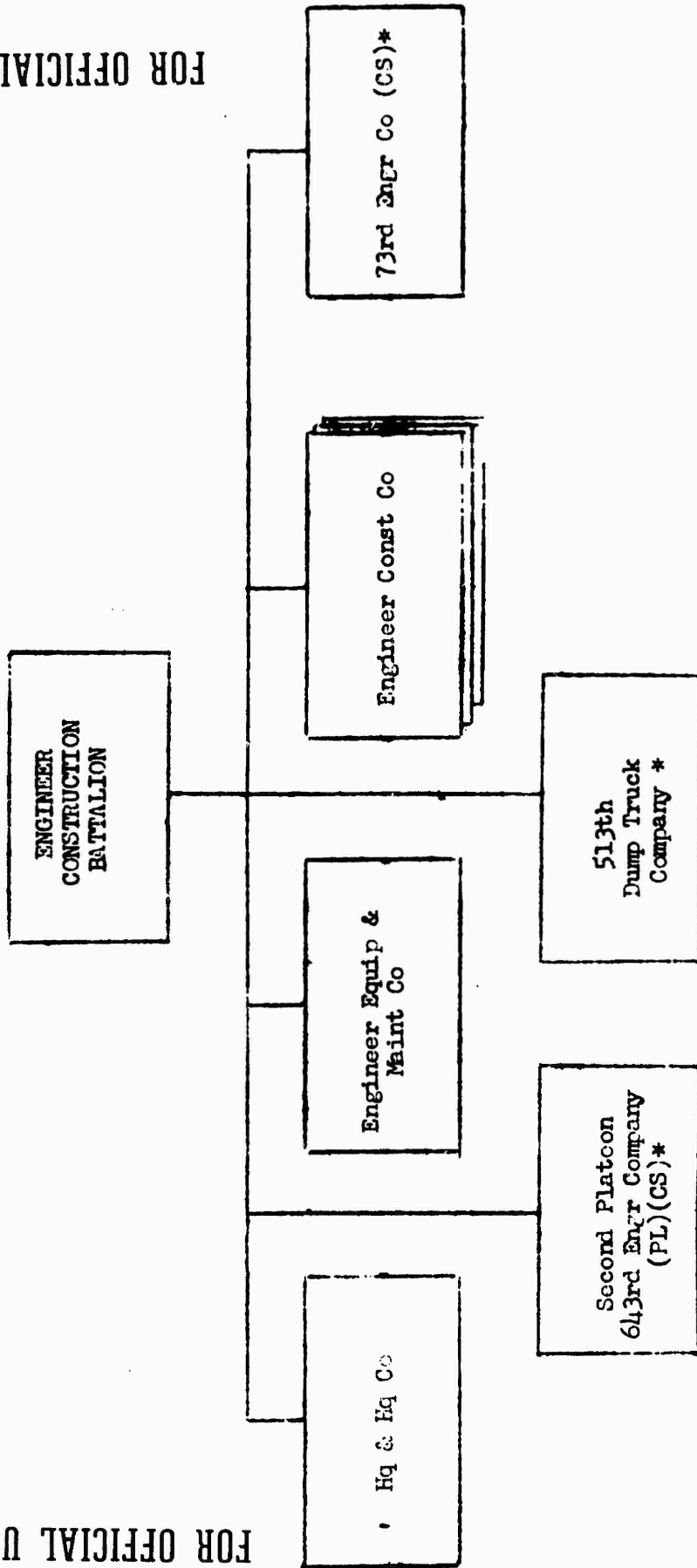
MAJ, ASST  
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ORGANIZATIONAL STRUCTURE  
84TH ENGINEER BATTALION (CONSTRUCTION)

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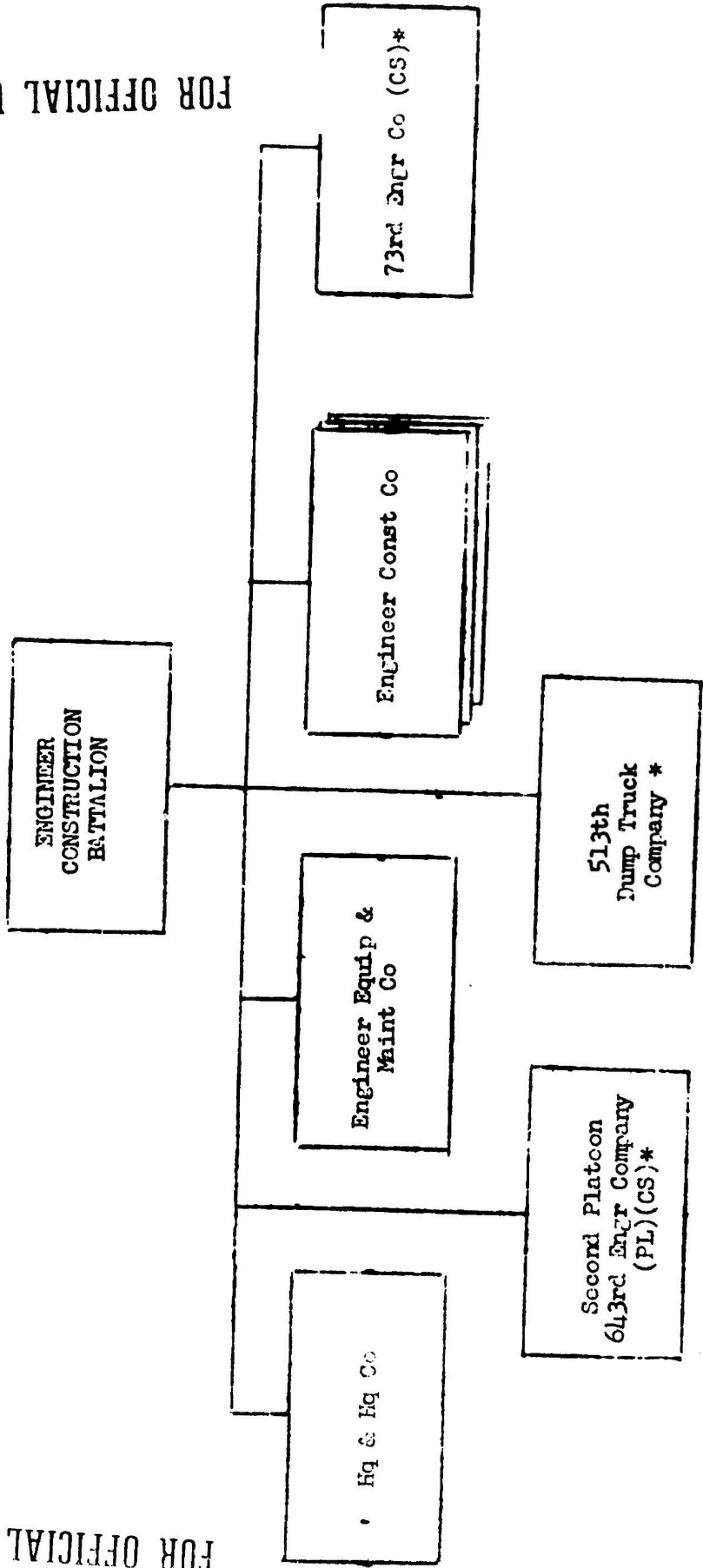
\* Attached

Inclosure 1 to Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 30 April 1967

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