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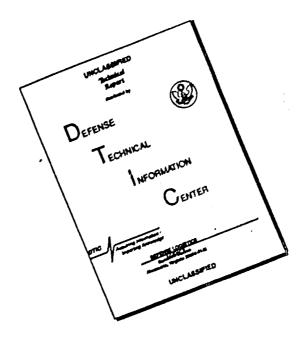
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DEPARTMENT OF THE ARMY OFFICE OF THE ADJUTANT GENERAL WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGAM-P (M)(14 Jul 69)

FOR OT UT 692319

17 July 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 169th Engineer Battalion, Period Ending 30 April 1969

SEE DISTRIBUTION

i. Subject report is forwarded for review and evaluation in accordance with paragraph 36, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, 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:

Jenneth G. Naickham

KENNETH G. WICKHAM Major General, USA The Adjutant General

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DEPARTMENT OF THE ARMY
Headquarters, 169th Engineer Battalion
APO San Francisco 96491

EGBE-3

9 May 1969

SUBJECT:

Operation Report of 169th Engineer Battalion, APO 96491, for Period Ending 30 April 1969.

SIE THE THE BUTTON

Section 1, Operations: Significant Activities.

1. Command.

- a. Unit Employment: The 169th Engineer Battalion is located on Long Binh Post, Republic of Vietnam, and is commanded by LTC Clifford T1 Flanigan.
- b. Mission: The mission of the 169th Engineer Battalion in the theater of operations is: to construct and rehabilitate roads and airfields, pipeline systems, structures, and utilities to provide combat and operational support and to assist in emergency recovery operations as directed by the 159th Engineer Group. In addition to the TO&E mission as stated above, the Commanding Officer of the 169th Engineer Battalion is designated as subsector commander and has the responsibility for the security of Long Binh Post in his subsector. The subsector responsibility includes a 1700 meter portion of the Long Binh Post perimeter.
- c. Area of Responsibility: The 169th Engineer Battalion's area of responsibility includes the provinces of Binh Tuy, Long Khanh, Phuoc Tuy, and portions of Bien Hoa Province. Additional responsibilities include missions in the Long Binh/Bien Hoa complex and bridge contingencies in the Capitol Military District.
- d. Attachments and Detachments: Currently the 169th Engineer Battalion has seven attached units. They are the 43rd Engineer Company (DT) (4 officers and 109 EM authorized), the 22nd Engineer Detachment (WD) (2 EM), 38th Engineer Detachment (WD) (2 EM), 156th Engineer Detachment (WD) (2 EM), 551st Engineer Detachment (WD) (2 EM), 917th Engineer Detachment (WD) (2 EM), and one earthmoving platoon (1 officer, 25 EM) from D Company, 92nd Engineer Battalion. The 92nd Engineer's platoon was attached to D Company, 169th Engineer Battalion, on 15 March 1969, for the purpose of assisting in the LOC construction of National Highway 20.

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- e. Movements and Location: Headquarters Company, A Company, and the 43rd Engineer Company (DT) continue to be located at Long Binh Post in the 169th Engineer Battalion cantonment area. B Company is based at Xuan Loc, with one platoon at Ham Tan. C and D Companies each maintain their headquarters and a platoon (-) on Long Binh Post, with the bulk of their personnel located at two separate base camps situated along National Highway 20.
- 2. Personnel, Administration, Morale, and Discipline.

a. Personnel.

(1) The 169th Engineer Battalion remains organized under TOWE M5-115G type B w/augmentation, and has a total authorized strength of 42 officers and 68l enlisted men. Its major attached unit, the 43rd Engineer Company (DT) is organized under TOWE 5-124G with a total assigned strength of 4 officers and 109 enlisted men. The personnel strengths of the 169th Engineer Battalion and attached units for the reporting period are as follows:

(a) February 1969 (as of last day of the month)

		OFF	<u>wo</u>	EM	TOTAL
Authorized (w/augmentat	ion)	37	9	800	846
Assigned		35	7	898	940
	(b)	larch 1969			,
Λuthorized		37	. 9	800	846
Assigned		36	8	904	948
	(c)	April 1969			
Authorized		37	9	800	846
Assigned		36	8	853	\$ 97

NOTE: Above strengths are exclusive of the attached platoon of the 92nd Engineer Battalion.

⁽²⁾ As of 30 April 1969 the Battalion, with attached units, was 1% overstrength. However there is an imbalance in MOS strength.

⁽a) Two significant MOS overstrengths are 64B Heavy Vehicle Driver (47 assigned, 31 authorized) and 51B Carpenter (79 assigned and 56 authorized).

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(b) Significant areas of understrength include construction supervision, and maintenance. These include:

HOS	DESCRIPTION	RANK.	ASSIGNED/AUTHORIZED
51D 51K 51H 62N	Mison Plumner Const Foreman Const Mach Supervisor		4/13 1°/39 7 15/34
62B 61 630 717	Eng Equip Dem. Wal Varu to Remn Gen Ventalo Remn Paint Data Spec	E-7 E-4,E-5 E-4 E-5 E-4	9/22 32/38 14/19 2/7 3/7

(3) The subalance results in the use of inexperienced personnel to fill the empty 1 a slots, for example senior equipment operators are used to fill come raction foremen slots, and heavy equipment repairman slots.

b. Morale: Verale has remained high throughout the reporting period for the battalism as a whole. This is evident by the low rate of disciplinary actions and high number of extensions (75). The factors which contribute to high moral in the battalion include: softball, basketball, volley ball and football activities; movies in the battalion theater and base camps: a modern NCO-EM club with regularly scheduled entertainment; officers club and a battalion chapel. Factors which inhibit the promotion of high morale include:(1) a heavy construction load with little time off during the dry construction season, and (2) a heavy guard duty commitment due to Long Binh Post defense requirements and remote unit base camp defense.

R&R allocations for the 169th Engineer Battalion average 65 leaves per month for out-of-country locations. The battalion receives three all-ocations to Vung Tau per month. While out-of-country allocations are deemed adequate to accomodate personnel in this battalion, additional in-country allocations could be used to reinforce the incentive awards program.

- d. Awards. During this reporting period the men of this battalion received 5 Army Commendation Medals, 13 Bronze Stars, and 11 Purple Hearts. In addition there are 17 ACM's, 10 Bronze Stars, and 18 20th Brigade Certificates of Achievement pending.
- e. Intelligence and Counterintelligence. The battalion has experienced few combat intelligence functions during the reporting period. Our main sources of intelligence data include a daily SITREP from II Field Force Vietnam, a Long Birth Post Intelligence Bulletin, and a SITREP from Long Kenth Province which enables us to pinpoint enemy activity in our area of responsibility. Two areas of engineer reconnaissance have been performed by this battalion. A periodic recon is made of the four bridges in the Capital Military District (Saigon) for which this battalion retains contingency plans. Aerial and ground recons were also made by this unit and higher headquarters to find possible quarry locations along National

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highway 20. As a result of these recons a crusher unit is now operating at Pinh Quan on National Highway 20.

- f. Training. Nearly all training of a formal nature has been conducted on Sunday mornings and Tuesday evenings. At these times mandatory DA and USARV subjects, troop information, and commander's lectures are presented. All new arrivals also receive battalion and company level orientation briefings soon after their arrival. Training is periodically conducted for personnel manning perimeter bunkers to include instruction on starlight scopes, claymore mines, fire discipline, alert systems, individual weapon training, and fire plans.
- 3. Enemy related Activity. During this period operations by C and D Companies on National Highway 20 were hampered by the continued presence of hostile forces. Thirty-nine company construction days have been lost during this period due to the enemy presence.
- a. In 26 March 1969 D Company construction personnel were ambushed on highway 20 by a numerically superior force. A firefight ensued for approximately $\frac{1}{2}$ hour, during which four pieces of equipment were damaged, and one U.S. personnel wounded. Countermeasures were taken to include artillery and air strikes, and a final sweep of the area.
- b. At 0200 on 15 March 1969 C Company base camp came under attack. During this attack the base camp received 25 8-40 rockets, 5 60mm mortar rounds, and an unknown number of grenades. In the ground attack that followed the VC broke through the perimeter wire but were stopped at the interior berm. The attack terminated at 0500 hours. Casualties included 4 VC KIA, 1 VM KIA, 2 VC WIA, 2 Vn WIA. On the following night the VC launched a stand off attack with 30-40 mortar rounds. There was no damage nor casualties.
- c. At 2310 hours on 11 April 1969, 34 mortar rounds were received at the C Comapny base camp. No casualties or damages resulted.
- d. At 0200H 23 Feb 69 the 169th Engineer Battalion cantonment area and that portion of the Long Binh Post perimeter defended by the 169th came under rocket/mortar attack. Approximately 8-12 rocket rounds landed in the battalion area in the initial phase of the attack. A counter rocket/mortar plan was initiated.

At approximately 0230 hours a ground attack was launched against the 169th Engineer Battalion portion of the perimeter by an estimated 200-man force. Reaction forces of the 169th Engineer Battalion and of other units were deployed to the area. Infantry units, armor, artillery, and gunships became involved in the defense of the area.

The attack terminated at approximately 0630 hours. Casualties included 8 wounded in the 43rd Engineer Company. No damages were suffered in the battalion cantonment area. 21 enemy were confirmed killed during the action.

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- 4. Construction Projects.
 - a. Projects completed during reporting period:
 - (1) Combat and Operational Support:
- (a) VOCO, Mell at 199th Infantry, A Company 169th Engineer Pattalian. Well was arilled to a depth of 180 feet. Steel casing was installed. Enoject was concelled due to lack of water. Stirting date: 8 March 69.
- (b) 159-68-262 Well at Nui Pa Den Quarry, A Company, 169th Engineer Battalian. Well was drilled to a depth of 45 feet. Steel casing was installed. Project was cancelled. Starting date: 10 Jan 69. Cancellation date: 21 April 69.
- (:) 159-68-004, Well at Bien Hoa Quarry, A Company, 169th Lighteer Battalion. Well was drilled to 27 feet. Project was discontinued due to large rock formations. Starting date: 16 Jan 69. Cancellation date: 25 Feb 69.
- (d) 159-69-050, Mine Clearing, Ham Tan, B Company, 169th Engineer Battalion. Project consisted of clearing a minefield near a MACV compound, Field was hard swept and probed, then cleared with a D/2 dozer. Starting date: 4 Mar 69. Completion date: 7 Mar 69.
- (a) 159-68-200 Hawk Compound, C Company, 169th Engineer Battalion. Erected a 20' steel observation tower. Installed a red obstruction light on a previously constructed 60' tower. Completion date: 16 April 69.
- (f) 159-407, Newport Bridge Lighting, C Company, 169th, Engineer Battalion. Lighting was transferred to contractor. Temporary floodlighting was installed, and weekly inspections were made. Permanent lighting completed on 15 March by contractor. Temporary lights removed. Completion date: 15 March 69.
- (3) 289-5407-0-20, Maintenance Revetments, C Company, 169th Engineer Battalion. Constructed 5 aircraft revetments, 6! high, 50' long. starting date: 1 March 69. Completion date: 15 March 69.
- (h) 68-159-163, USARV Data Service Center Revetments D Company, 169th Engineer Pattalion. Assembled 765 linear feet of 9' high revetments filled with laterite. MSA1 matting was used for the revetment sides and a 3" cap of concrete was placed on top. Starting date. 20 Oct 18: Completed 10 Feb 60

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(2) LOC.

- (a) B59-69-CO2, Paving Bearcat Access Road, A Company, 169th Engineer Battalion, 26,600 Sy was paved, completing 3.56KM of road. Starting date: 8 Mar (9. Completion date: 27 March 1969.
- (b) 46-206-02-T-6S Faving Long Thanh Airfield, A Company, 169th Angineer Pattalion 2.0 miles of road were paved, for 14080 SY. Starting date: 27 Jan 69. Completion date: 12 April 69.
- (c) 98-231-LC-A59, Forth Saigon Bypass, A Company; 169th Engineer Battalion, 5.4 miles of single lane were paved for 38,036 sv. Starting date: 15 Jan 69. Completion date: 6 March 69.

(3) MER

159-68-023, MER for 54th Artillery Group, D Company, 169th Engineer Battalion. Assembled 8 pairs of laterite-filled revetments, 41 high X 401 long. Kaiser Steel Corporation "K-Malls" were used with a 3" concrete cap placed on top. Starting date: 28 Jan 69. Completion date: 24 March 69.

(4) Base Construction

- (a) 43-365-01, USARV Stockade, C Company, 169th Engineer Battalion, Project partially completed by other unit. Constructed one 201 x1081 billets and one water tank. Completion date: 3 April 69.
- (b) 07-242-01 III CORES TOC, C Company 169th Engineer Battalion. Constructed overhead standoff protection for the III Corps TOC at Bien Foa. Completion date: 22 March 69.
- (c) 43-353-01 18th MF Brigade Billets and Admin/Supply Building, C Company, 169th Engineer Battalion. Froject called for construction of three 20' x 108' billets and one 20' x 48' Pasco admin Building. Forms were placed. Project was cancelled. Cancellation date: 7 April 69.
- (d) 73-223-01-T-75, 493 Man Cantonment, Saigon, D Company, 169th Digineer Battalion. Constructed nine 2-story, 201 x 1081, tropical wood buildings for the 92nd MP Battalion. Six were used entirely for troop billeting; three were used for both troop billeting and administration. All buildings were constructed with concrete slabs.

b. Active Projects

- (1) Combat and Operational Support:
 - (a) 159-68-008, Well at 16oth Signal, A Company, 169th Engineer

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Battalian, Well was drilled to a depth of 79 feet, with 65 feet of casing. Formation was rock. Starting Dice: 21 April 69.

- (b) 589-0302-0-01, Tall at Xuan Loc, A Company, 169th Engineer Battalion. Well is being surged to determine capacity. Drilling will begin pending results of surge test. Starking date: 7 May 69.
- (c) 159-316D bor Revoluents, C Company, 169th Engineer Battalian Original project called for the construction of 12000 IF of revetments around the billets in Borrea # 3 on long Binh Fost. The scope was increased in 25 March 3 to 18,000 IF. 600 IF remain to be constructed and 2500 IF remain to be filled and capied. Project is 86% complete. Expected Completion data, 30 May 69.
- 169th Engineer Fatualion. Project requires construction of 966 feet of reveturent as and buildings 4571 and 5407 on Long Binh Post. Project is 42% complete. Dapa ded completion date: 6 Jun 69.
- (e) 263-5416-3-23, Long Binh Jost Defense, C & D Companies, 169th Engineer Battalier. Project authorizes repair and upgrade of LBP perimeter defences in 169th subsector. Perimeter fence was repaired, RPG standoff fences were installed, trip flares were placed, claymores cemented in place, and latrines constructed. This project is continuous.

(2) · Lòc

- (a) 43-331-15-T-75, Long Binh Post Paving, A & D Companies, 169th Engineer Battalio.. No paving has been accomplished this reporting period. Project is presently 55% complete.
- (t) 98-240-159-LOC, OL-20 Restoration, A, B, C, and D Companies, 169th Engineer Battalion. Project requires clearing, ditching, installation of drainage structures, and surfacing of 58 kilometers of National Highway 20 in Long Khanh Frovince. At this time approximately 5 KM of road has been reised to MACV Standard, and another 25KM has been resurfaced or repaired. Approximately 16 drainage structures have been replaced and/or constructed, and 29 culverts have been upgraded. 55% of a 60' steel stringer bridge has also been accomplished. The project is 59% complete. Estimated Completion date: 21 July 69.
 - (3) MER None
 - (4) MACV Advisor Facilities.

43-359-01 MACV Advisors, Ham Tan, B. Company, 169th Engineer Battalion. Scope of work completed this period includes one 201 x 361 Commo Bunker, one 201 x 361 billet, one 201 x 1641 billet and the removal of an old security fence and the installation of a new one.

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(5) Base Construction,

- (a) 7-234-44-T-75, 175th Radio Research Building, C Company, 169th Engineer Rattalion. During this period, security lighting was installed, a 40' guard tower was erected, and steel doors and locks were installed in the operations building. Project is being inspected pursuant to acceptance on 1354,
- (b) 89-206 Cantonment Facilities Blackhorse, C Company, 169th Engineer Battalion, Service club facility was restarted on 14 April 69. Ceiling has been completed. 'All paneling, plumbing, and electrical portions remain. Completion date: 14 July 69.

Twenty-five maintenance buildings are required. Three have been completed, seven have been framed, and ten of the concrete pads have been poured. This portion of the project is on a self-help basis. Project is 25% complete,

- (c) 89-205 Aircraft Maintenance Hanger Blackhorse, C Company, 169th Engineer Battalion, The UH-1 Maintenance Hanger Facility of the project was completed on 1 April 69. Additional facilities include an operations building and wash aprons. Latter portion of project is to be done on a self-help basis.
- (d) 07-240-olaT-75 Mater Supply Facilities, Rien Hoa, D Company, 169th Engineer Battalion. Project consists of 2 water storage tanks and towers, and a water treatment facility. The well has been drilled, both towers are nearly complete, and one tank has been assembled. Project is 45% complete. Estimated completion date: 30 Jun 69.
- (e) 07-241-0-1-T-78 'later Supply Facilities Bien Foa, D Company, 169th Engineer Battalion. Project consists of 2 wells with 3 water storage tanks with steel towers, and two water treatment facilities. Two water tunks with towers and one water treatment facility near completion. Project is 66% complete. Estimated completion date: 30 Jun 69.

(6) Continuous.

159-68-008 Asphalt Plant, A Company, 169th Engineer Battalion. Plant produced 18,670 tons of asphalt.

c. Projects Pending.

- (1) 43-377-01, Grass Seeding USARV Hill, A Company, 169th Engineer Battalion.
- (2) 359-01-159 Tell Drilling at Fam Tan, A Company, 169th Engineer Battalion.

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- (3) 43-356-01 Well Drilling at Tanh linh, & Company, 169th Engineer Battalion.
- (4) 68-20-6, Airfield aintenance, B Company 169th Engineer Battalion. Continuous,
 - (5) Natural for Pier Protection, Sal, 169th Engineer Battalion.
- (e) 8 -289 300 KW Power Plant Xuan Loc, B Company, 169th
- (7) 12-335, 506th Field Depot, C-8 Area, A Company, 169th Engineer Battalion.
 - (2) ASCOL LCT Maintenance, 169th Engineer Battalion.
- (9) 789-0371, MACV Advisor Facilities, C Company, 169th
- (10) 809-0332, MACV Advisor Pacilities, B Company, 169th Engineer Bittalion.
- (11) 743-0302, MACV Advisor Facilities D Company, 169th Engineer

Section II. Significant Lessons Learned.

- 1. Rersonnel: None
- 2. Operations:
 - a. Establishing long range radio comunications:
- (1) Observation: The normal operating range of the VRC-46 does not allow direct radio contact between Long Binh Post and the base camps of this unit's out lying companies.
- (2) Evaluation: This problem was encountered when C and D company moved to base camps on National Highway 20. It was necessary to establish communications from the Battalion Command Post to the Company Command Posts so a relay station was set up in a location where loud and clear communications for all stations can be achieved. The relay station is manned 24 hours per day.
- (3) Recommendations: In addition to the relay station with an operator on duty at all times a retransmission unit could be installed which would allow the commander direct, responsive contact with the man on the job. At this direct contact there is little chance that the commander's tone, urgency, and message context will be lost during the relay process.

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- b. Shoulders on Mational Fighway 20.
- (1) Observation: Many failures of Asphalt Concrete payement occur at the edge as a result of water standing on the shoulder or in some other runner seeping under the payement edge.
- (2) Waluation: If the roadway is properly compacted, crowned and sealed the problem of standing water and seepage under the edges of the asphalt concrete is minimized.
- (3) Recommendation: That shoulders as well as the base course be shot with asplalt to keep water proof the surface and lengthen the life of the road. This procedure also presents a pleasing road appearance and aids in holding down the dust.
 - c. Utilization of a Grid Roller in Base Preparation:
- (1) Observation: In ripping the old French stone base course in preparation for final base work for paving on AL-20, numerous problems arose in obtaining the finished surface. Large stones were appearing on the surface which tended to ravel or required pans to bring in additional binder material to cap the surface.
- (2) Evaluation: That after ripping and scarifying, graders working to shape the crown and shoulders, in moving material back and forth across the road were losing all the fines, with the larger rock remaining on the surface.
- (3) Recommendation: Utilization of the Grid Roller in confunction with water and the grader resulted in breaking the larger stone or driving it down into the base. With no outside natural being added to the rock, more water could be a ded without the base turning soft. With the additional moisture to retain fines plus the larger stone driven down, no additional binder material was required. This provided a durable base course for paving.
 - d. Crusher Operations:
- (1) Observation: That rock that has been exposed to rain and mud filled will not efficiently go through the crusher.
- (2) Evaluation: That if some washing method can be found, effective operations can continue.
- (3) Recommendation: A 1.000 gallon water distributor with hose was used to periodically clean the shaker box and waste chute. The mud did require the divider screen below the shaker box to be removed resulting in a small loss of fines. Lowever, the material off the waste conveyor proved to be excellent fill material and was utilized as such.

early Subject:

Operation Report of 169th Engineer Buttalion, APO 96491 for Period Ending 30 April 1969.

- e. Using sand as fines material in Asphalt Concrete
- (1) Observation: The use of sand as fines material often causes production time to increas, and uncreases the possibility of bad loads.
- (2) Evaluation: A bad situation occurs when the sand being used is specially wat. Nor tin needed to properly drothe moist sand and if not properly dried a bad load will result.
- (5) That fire crushed rock be used instead of sand in the proper proportions with 3/4" (-) aggregate to insure a tight, water proof, durable wearing surface of capitalt concrete.
- i. Using a front loader and a series of barrel hooks to move barrels of asimula from in location to another.
- (1) Observation: Standard Barrel hooks like the ones used on granes do not elimitum lovement of barrels at the rate necessary to stay ahead of needs.
- (2) Evaluation: Then off loading many barrels at a rapid rate it is definitely advantageous to stack the barrels neatly as they are taken from here to there.
- (3) Recommendations: Special barrel hooks which are adaptable to a front loader can be made and us of to great advantage. As many as nine hook can be used allowing the off loading of 9 barrels at a time, decreasing overall time of operation.
 - g. Use of percussion type well drilling rigs in hard rock formations.
- (1) Observations: Drill bits on percussion type well drilling rigs become dull and spliyed in a short time when drilling through hard rock formations.
- (2) Evaluation: Men drill bits become dull and splayed the drilling efficiency of the rig goes down. In hard rock this problem is more acute because of the rapid deterioration of the bit. It is necessary to dress and/or change the bit frequently, but well dressed bits soon become scarce and forges for dressing the dull bits are not available. A situation which usually results in an abandoned hole is created, when, if the proper tools and forges were available the hole could be consinued in search of a good
- (3) Recommendation: That a bit dressing forge be made mart of the TOME equipment of each well drilling detachment and instructions given on how to use it.
 - h. Subgrade stabilization where a high water table exists.

SUBJECT: Operation Report of 169th Angine r Pottalion, APC 96491 for Person Duling 30 April 1969.

- (1) Observations: A high water table at drainings structure No. 5 on Pational Highway 20 caused a major subsurface failure.
- (2) Evaluation: At one point in the construction operations it was noted that when a 35 ton pneumatic tired roller was pulled over this section the soil rolled up in front of the wheels, depressed, and sorung back after the case had been completed. The more it was rolled the worse it became. It was decided to exc. vate and back fill with a clean granular material of small enough size to provide a filter blanket over the saturated soil and of high enough design CBR to provide a good subgrade. It was decided that river sand would do the job.
- (3) Recommendations Because of the high water table at this location, drains were installed through out the fill. Perferated pipe was employed in a trench and packed with gravel aggregate, and the remainder of the excavation was back filled with sand. It is felt that this proceedure is sound and is recommended for similar situations.

3. Training

- a. MCA LOC Equipment operator training.
- (1) Observation: This battalion is receiving a number of pieces of civilian construction equipment on an Army equipment buy program. In nearly all cases the equipment is being operated by personnel with no experience on that particular type or make of equipment.
- (2) Evaluation: It has been found that with a minimum amount of on-the-job training, an operator of a marticular type of TOME equipment may become proficient in the operation of a similar type of civilian-purchased LCC equipment. For example, the operator of an Army TOME 10 ton roller may, with a minimum amount of check-out time, be fully capable of operating and maintaining a civilian purchased 8-13 ton roller. On the other hand an attempt to convert a tractor operator to a roller operator, while possibly producing a capable operator, may not necessarily result in a man trained to maintain that type of equipment.
- (3) Recommendations: There possible, personnel to be utilized on new, civilian-purchased equipment should be drawn from operators of a similar riece of equipment. This method requires minimum amount of CJT. There this is not possible, the individual to operate the equipment must be given instruction on operator maintenance in a dition to operation of the equipment.

4. Organization.

Organization of an engineer construction battalion to expend a majority of their effort or the construction of Class A highways

SUPJECT: Operation Report of 169th Engineer Pattalion, APO 96491, for Period Ending 30 April 1969.

- (1) Observation: The organization of an engineering construction battalion is based on three identical units with three identical capabilities. A battalion committed to highway construction essentially has one job that can be broken down into several distinct parts each different from the other.
- approach a highway job from a TONE organization standpoint they would have to operate on three separate fronts. Effort would be duplicated and the units would be in competition for spare parts equipment and personnel. If the battalion were broken down into a tast force organization where there was an embankment and excavation task force, a grading and compaction task force, a task force, a hauling task force, and vertical construction task force, more efficient operations would result. The job would be able to progress from one operation to another and spare parts equipment and personnel would generally be peculiar to each task force thus minimizing internal competition and maximizing organized maintenance.
- (3) Recommondations: That engineer construction battalions that are committed to highway restoration and upgrading consider reorganization into task forces to enhance their overall capability and efficiency.
- 5. Intelligence: None
- 6. Logistics: None
- 7. Other: None

CLIPEORD T. FLANIG LTC, CE Commanding

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in.

To: Commerding officer, for angle-on inigote, ATTV: AVPI-OJ, ATO 0/191

1. Submitted in accordance with 10.17 Leg Session 3.5-15, dated 13 April 1.65.

- everstrength in 1,2 to Meavy Verdels Driver Fould rect (66 assigned, 91 authorized). The corrected figure include the 43rt Engr To (TT) which was obtiled in the basic latter. The buttalier figures shown on the basic latter indicate an overstrength has to a recent reduction in authorization in this Mod. As personnel rotate in assigned total will approach the authorized number. It should be cointed out, however, that the heavy truck criver skills have been civilianized, but the Group has been able to fill only a small personnage of authorized positions. As a result heavy truck brivers are a critical like shortage.
- 2. Reference: Section 2 largraph h (3), page 13. Construction bettalions are suited for a variety of missions, one of which is lines of communication restoration and upgrade. However, instead of establishing a task force or colification to a bettalion in order to best suit a specific mission, augmentation with appropriate special purpose units such as dump truck and light equipment companies is more effective and flexible.

4. Subject report for the 169th Engineer Sattalion (Construction) has been reviewed and is considered adequate.

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Ou, 169th Engr Bn

AVBI-OS (15 May 69) 2nd Ind SUBJECT: Operational Report for 169th Engineer Battalion (Const) for Period Ending 30 April 1969, RCS CSFOR-65(R1)

DA, HEADCUARTERS, 20TH ENGINEER BRIGADE, APO 96491

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375

- 1. Submitted in accordance with USARV Regulation 525-15, dated 13 April 1968.
- 2. Subject report for the 169th Engineer Battalion (Construction) has been reviewed and is considered adequate.

FOR THE COMMANDER:

J. J. MONTO

Copies Furnished: CO, 159th Engr Gp CO, 169th Engr Bn AVHGC-DST (9 May 1969) 3d 1md SUBJECT: Operational Report of 169th Engineer Battalion for Period Ending 30 April 1969

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 18 JUN 1969

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

- 1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 30 April 1969 from Headquarters, 169th Engineer Eattalion.
- 2. Asfarence i em concerning use of percussion type well drilling rigs in hard rock formations, section II, page 11, paragraph 2(g); concur. However, presently a MTOE for USARV Well Drilling Detachments is being finalized that will satisfy this requirement by authorizing a new Drilling Machina, Well, Combination, Semi Trailer Mounted (FSN 3820-B01-1337). As an interim solution, a bit dressing forge can be fabricated from locally available material as prescribed in TM 5-297. Unit will be advised of above comment.

FOR THE COMMANDER:

Cy furn: 169th Engr Bn 20th Engr Bde

W. C. ARNIZ

Assistant Adjutant General

GPOP-DT (9 May 69) 4th Ind SUBJECT: Operational Report of HQ, 169th Engr Bn for Period Ending 30 April 1969, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 5 JUL 69

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:

D A TUCKER

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CO, 169th Engineer Battalion							
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