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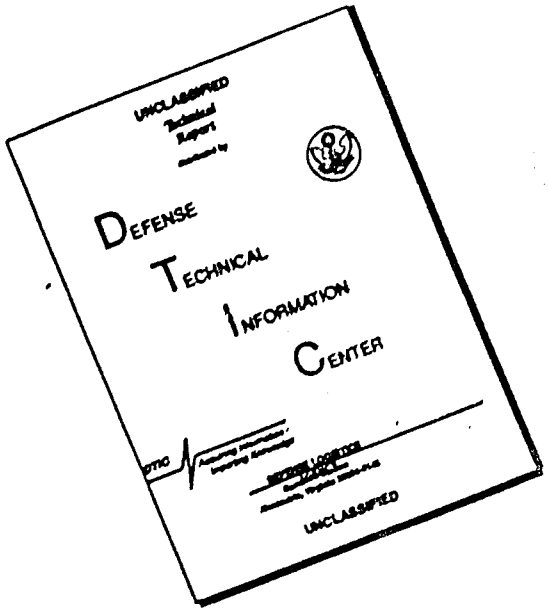

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OFFICE OF THE ADJUTANT GENERAL
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AGDA (M) (5 Nov 69) FOR OT UT 693149 5 December 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 864th Engineer Battalion, Period Ending 31 July 1969

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 864TH ENGINEER BATTALION (CONST)
APO 96240

EGACBC-3 31 July 1969

SUBJECT: Operational Report of the 864th Engineer Battalion (Construction) for Period Ending 31 July 1969, RCS CS FOR-65 (R1)

THRU: Commanding Officer
35th Engineer Group (Construction)
APO 96312

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

Commanding General
United States Army, Vietnam
ATTN: AVHGC(DST)
APO 96307

Commander in Chief
United States Army, Pacific
ATTN: GPOP-DT
APO 96588

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

1. Section 1, Operations: Significant Activities.

a. Battalion Narrative

Changes in the command and staff elements of the 864th Engineer Battalion occurring during the quarter included the Battalion Commander, Battalion Executive Officer, Battalion S-3, the Communications Officer, Personnel Officer, and Property Book Officer, as well as the Company Commanders of Company A, the 610th

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Engineer Company (Construction Support), and the 553rd Engineer Company (Float Bridge). LTC Arthur Daoulas departed for CONUS on 1 July 1969. Maj Harrison J Moot assumed command on that date, and on 4 July 1968 LTC Russell A Glenn, the present commander arrived. Major Moot then became Battalion Executive Officer replacing Major Hugh P Johnson who had also departed for CONUS on 1 July 1969. Major Moot's move vacated the S-3 position which was filled by the assistant S-3 Cpt Stephen P Meyer. 1Lt Henri J Van Naerssen departed for CONUS in early July and was replaced by 1Lt Donald A Mazzeo as Battalion Communications Officer. CW2 Paul D Norris replaced CW2 George E Stogdill as Unit Personnel Technician in late May 1969 when the latter was reassigned to CONUS. Unit Supply Technician CW2 Richard E Davis rotated in early July and no replacement has been received to date. On 1 May 1969 1Lt Albert P Schneiderhan assumed command of the 610th Engineer Company (Construction Support), replacing Cpt Stephen P Meyer who became assistant S-3. Cpt Paul N Smeltzer replaced Lt Schneiderhan on 1 July 1969, and was himself succeeded as Alpha Company Commander by Cpt James H Baldridge Jr, newly arrived in-country. 1Lt Donald J Wolf replaced 1Lt James D Creasman as Company Commander of the 553rd Engineer Company (Float Bridge) when the latter rotated on 20 June 1969.

The battalion engaged in thirteen company half days of training during the reporting period. This training included Command Information Topics, Character Guidance, Safety, Individual and Crew-Served Firing for Familiarization and Qualification in assigned weapons, and Counter Sapper Training. The battalion continued its replacement training program. Two hundred seventy three replacements received instructions in Viet Cong Tactics, Interior Guard, Convoy Procedures, Ambush and Countermbush Measures, Immediate Action, PW and Detainee Handling, Familiarization and Zero Firing of Individual Weapons and a Gas Chamber Exercise.

Supporting the continued emphasis on the upgrade of QL-21 the Alpha Company quarry section closed out its quarry-crusher complex at Thon Tan Thuy and moved into the 610th Engineer Company base camp at Khanh Duong, sharing their quarry and establishing a crusher site to produce the remaining base rock requirements for QL-21. The battalion was tasked with a number of important projects at Dong Ba Thin, requiring the movement of one platoon of Bravo Company to that location.

The battalion had two changes in attachment during the reporting period. One platoon of the 513th Engineer Company (Dump Truck) was attached for operational control only in mid-May. The 553rd Engineer Company (Float Bridge) was received in attachment in mid-June.

There was considerable personnel turbulence during the quarter, with a turnover consisting of 363 gains and 481 losses, over 75% of assigned strength. The non-commissioned officer experience gap continues. Eight E7 slots are filled by E6 personnel and twenty three E6 slots are filled by E5's.

The freeze on hire of additional Vietnamese civilian workers continued. Moreover vertical construction requirements in the Nha Trang area diminished, while the need for laborers at the Khanh Duong quarry and asphalt plant increased considerably. Authorization was obtained from USARV to hire 30 temporary employees

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at Khanh Duong. As personnel not needed in the Nha Trang area are phased out more slots will be available for hire at priority location.

The major construction effort of the battalion continued to be LOC rehabilitation in Khanh Hoa province. A total of 28.5 km was paved completing 53.7 km of 65km of road between Ninh Hoa and Khanh Duong. Also during the quarter, QL-1 between bridge 153 and Dien Khanh was completed, a total distance of 5.2 km. Initial reconnaissance and planning for impending deployment to QL-14 North and South of Ban Me Thuot was conducted during the reporting period.

Enemy action caused no significant delays in the battalion's construction program. Isolated sniper incidents and two mortar attacks on Nha Trang resulted in a total of 4 personnel WIA during the quarter.

Weather had no major effect on operations and construction progress. A few days paving were delayed or aborted due to rain.

The battalion continued to live up to its title of "Pacemakers" during the period as indicated by the following statistics:

Crushed Rock Produced	114,410 cu yds
Asphalt Produced	36,480 tons
Unsuitable Fill Removed	52,380 cu yds
Fill Hauled	100,340 cu yds
Base Course Spread	15,035 cu yds
Highway Completed to MACV Std	31.43 km
Subbase Prepared	11.40 km
Subgrade Prepared	None
Maintenance of Roads	204 km
Concrete Placed W/O Reinfor.	None
Concrete Placed W/ Reinfor.	146.5 cu yds
Wood Frame Building Const.	None
Wood Hutments Const.	None
Open Storage Stabilization	None

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EVACDC-3 31 July 1969
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Support of the civic action program continued in several areas. Scrap materials and excess food were donated to the orphanage at Hau Tam and to Cai Cai village. Also small earthmoving projects were done at both locations. A causeway to permit pile driving for the Dien Khanh District "Civic Action Bridge" on a branch of the Song Cai river was completed during the period.

Attached as inclosure number one is a listing of organic and attached units of the battalion.

b. Headquarters and Headquarters Company Narrative

Headquarters and Headquarters Company continued to support the battalion administratively, and conducted thirteen half-days of training.

The S-1 section and the Personnel section continued to execute their functions efficiently and effectively. During the period they processed 363 replacements, 481 departees, and handled the administration of 315 Vietnamese civilian employees.

The S-2/3 section continued its normal operations during the reporting period. Coordination of activities from Dong Ba Thin to Ban Me Thuot was a major task. Engineer design was completed for a two company base camp-rock crusher-asphalt plant complex on QL-14.

The S-4 section continued its mission of arranging the acquisition and delivery of supplies. The supplying of units deployed on QL-21 was refined to a smooth-flowing process. Frequent visits to depots as far afield as Qui Nhon and Da Nang, coupled with vigorous followup on requisitions and releases accomplished the obtaining of several major items of equipment, which greatly enhanced the battalion's sustained mission capability.

The Battalion Medical section experienced a routine quarter. Fungus and heat rash type ailments remained high, though a more liberal uniform policy offered relief towards the end of the quarter. Venereal disease remained high despite continued command emphasis. The dispensary was relocated to Ninh Hoa in May in order to shorten the travel distance for sick call personnel from outlying companies and reduce the attendant absentee time loss.

c. Alpha Company Narrative

The A Company Quarry Section completed its move to Khanh Duong on 12 May 1969. Since its move the cumulative output continues to exceed the Group quota of 3500 cubic yards per week. During the week ending 19 July 1969 the output reached a high in production of 5450 cubic yards. The Quarry Section crushed 2205 cubic yards before closing out the Thon Tan Thuy quarry on the 10th of May and since that time has issued a total of 15,074 cubic yards from that stockpile during this quarter.

The Quarry Section at Khanh Duong West (KDW) has crushed a total of 43,548

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cubic yards and has issued a total of 42,336 cubic yards. The majority was consumed in base course operations; the remainder being used as asphalt rock.

During the quarter the Asphalt Section of A Company, which consists of an asphalt-finisher, a 5-8 ton steel wheel roller and 8 men, paved from Km 25 to Km 34 on QL-21 and moved west of Khanh Duong in support of the 70th Engr Bn. 23 km of paving have been completed in support of the 70th Engineer Battalion to date. During the quarter the section had a high production day which has yet to be equalled in the battalion by laying 1030 tons of asphalt.

A Company trucks travelled 77,621 miles in May, 49,940 miles in June and 96,165 miles in July for a total of 223,726 miles for the quarter. During this time the weekly percentage of deadline for the company has remained below 10%, a respectable achievement for the operators, 2nd Echelon and 3rd Echelon mechanics of the company. Probably the hardest working section in the maintenance program has been the tire repair shop. During the 90 day period they have dismantled and repaired or replaced almost 2250 tires, or about one tire for every 100 miles travelled.

The Direct Support Unit has, between 1 May and 30 July, received 391 jobs for repair or salvage and returned 345 jobs to the units. The Direct Support Unit has initiated a program which should preclude the down time of vehicles being prepared for maintenance. An engineer equipment supervisor, has been sent to remote field units to act as the 3rd Shop representative. His job is that of a Technical Inspector for all equipment which is located in the three companies located along QL-21. Acting as a buffer, he can accept vehicles for the Direct Support Unit at the company area thus leaving only transportation to contend with in getting a vehicle into the shop at Nha Trang. Furthermore, if a part is available at 3rd Shop that will return a piece of equipment to an operational status and that part can be replaced under his supervision then the part is sent to the field unit, thereby alleviating the need for a vehicle having to be transported to Nha Trang.

Key personnel positions have been vacant during the quarter. Vacancies now existing are an equipment platoon leader, an engineer equipment technician (WO), a quarry section supervisor (E-7), and a repair parts supervisor (E-6).

The company was involved in 13 half-days of training for the period. No time was lost due to enemy activity.

d. Bravo Company Narrative

Rehabilitation and maintenance of National Highway QL-1 from bridge 153 to bridge 159 dominated company B's construction efforts for this quarter. The company completed 5.2km subbase as well as base course and paving on this section.

Subgrade construction on QL-1 for the period involved the removal of 11,650 cubic yards of waste material, and the spreading and compaction of over 40,000

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cubic yards of fill material. The earth moving platoon then placed and compacted 18,440 cubic yards of base course. For hauling the base course both 5 ton dump trucks and a combination of the Vietnamese National Railroad cars and 290M scrapers were utilized.

A major vertical project was completed during the quarter when the second construction platoon put the finishing touches on the IFFV Artillery Headquarters, largely with local labor, by completing the wiring of the building, installing fourteen air conditioners, hooking of the indoor plumbing, and minor roof repairs.

Bravo Company made a major contribution to the MACV facilities upgrade program during the quarter. The first construction platoon was involved in the construction of a two story administration and billets building for the MACV district team at Dien Khanh. The building contains indoor plumbing with flush toilets, fluorescent lights, a well and separate water storage tank. The building is presently complete except for the water tower.

The second construction platoon also has started MACV building at Cam Lam for district team 46. This building, like the Dien Khanh building, has complete indoor plumbing, its own well and septic tank. The 60' by 15' building has 8' high walls made of prefabricated concrete blocks, which were made by Vietnamese permanent hire employees in Nha Trang. This building is presently 80% complete, leaving completion of paneling, wiring, electrical hookup, and installation of a water tower yet to be accomplished.

A program to increase helicopter protection by converting L-shaped revetments to parallel was initiated during the quarter. B Company converted 19 revetments at the 281st Assault Helicopter Company in Nha Trang. A total of 5200 yards of sand fill was utilized in the project. The project is expected to continue next quarter at the 92nd Assault Helicopter Company in Dong Ba Thin.

A shifting of the 589th Engineer Battalion area of operations south of Phan Rang and the subsequent withdrawl of a company from Dong Ba Thin resulted in Bravo Company acquiring several partially completed projects at that location.

The first construction platoon was relocated to Dong Ba Thin to work on the huge 300' by 80' covered storage facility for the 608th Maintenance Company. Work to be completed involved the installation of electrical wiring, grading and stabilization of 7200 square feet of hardstand area, and minor roof repair. Since inheriting this project, the platoon has constructed 4ea personnel doors and frames, placed timber in prefabbed channels to allow hanging of 6ea. 15'7" sliding doors, placed 450 square feet of 4" concrete pads, done major roof caulking repairs, and placed 600 lineal feet of 2" by 18" facia around the edges of the roof. A total of 117 light fixtures were hung but not tied in due to nonavailability of wire.

The earthmovin platoon began rebuilding of hover lanes at Flanders Heliport at Dong Ba Thin. This project involves hauling approximately 20,000 cubic yards

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of sand to bring the three lanes to grade, then capping with 3,000 cubic yards of laterite, compacting and priming. Lane 1 is currently 80% complete, the overall project is 25% complete.

Most recently the first construction platoon began the rehabilitation of a group of buildings at the 18th Engineer Brigade Headquarters, for use as quarters for field grade officers. The project involves installation of partitions and paneling in three tropical buildings.

Projects to be initiated in the future include a maintenance hanger for the 183rd Avn Company, and runway matting repair for the 339th Avn Battalion, as well as extensive rehabilitation of the 18th Engineer Brigade area.

c. Charlie Company Narrative

A major portion of the work effort by this unit during the reporting period has been the upgrading and paving of National Highway QL-21 from Ninh Hoa to Ban Me Thuot.

Approximately 25 km of double lane pavement had been placed up to the end of the last reporting period. The paving operation for this period covered QL-21 for an additional 11.1 km of double lane pavement. During this operation, approximately 8500 tons of asphalt were laid while 5,045 gallons of MC-70, 1,650 gallons of MC-3, and 3,300 gallons of diesel fuel were used in applying a prime coat to the existing roadway. To date 56,316 USMH, 4350 VMMH and 42,447 Equipment Hours have been expended on the paving operation, including 14,984 USMH, 1820 VMMH and 19,520 Equipment Hours during this reporting period.

The initial step in upgrading QL-21 during this reporting period was the preparation of the road for paving from the end of the paved area (Km 25) to the C Co area. This work involved scarifying sections of the road to a depth of 8 to 10 inches, then wetting, compacting and grading until the desired quality of road surface was obtained. In some areas it was discovered that the road surface had ample base course already in place and no additional base course or fill was needed, only recompaction and regrading. In several areas on the road within the above mentioned area were several horseshoe curves where the road surface was very badly worn due to weather and traffic. In these areas the outside of the curves were benched out and refilled with fill and base course followed by compaction and grading to strengthen curves against weather and traffic. After the upgrading work was finished, the road was primed and paved.

In areas where major upgrading work was required the initial work involved a rough grading of the entire stretch followed by the clearing of all existing drainage ditches and the cutting of new ditches where necessary. The next operation consisted of bringing in fill, depositing it on the road, wetting it, compacting it and grading it. This operation was followed by a base course operation where the base course was deposited on the road, wetted, compacted and graded. To date the base course operation is complete with the exception of a 3 km stretch where the

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fill operation is complete but still requires base course before it can be primed and paved.

During this reporting period 39,006 VNMH and 25,650 Equipment hours have been expended while 14,264 cubic yards of base course and 640,600 gallons of water have been put on the road and 73,286 cubic yards of fill have been moved.

Construction of four bridges and the repair of a fifth comprised yet another phase of LOC upgrade. The initial step in the construction of the repair of these Bridges was construction of a bypass at each of them. Bridges # 8,9,10 and 11 were destroyed with demolition and the resulting debris was removed from between the abutments. Bridge #8 has been replaced with a culvert consisting of three 60" diameter culverts with masonary head walls and concrete aprons. Bridge #9 has been replaced with one 72" diameter culvert and two 48" diameter culverts. Bridge #10 will have three 48" diameter culverts and Bridge #11 will have four 48" diameter culverts; both will have masonary head walls and concrete aprons. Bridge #12 will be repaired by removing a damaged abutment and building a new one. To date, 1630 USMH, 1250 VNMH and 1516 Equipment Hours have been expended on the bridges.

Another major effort by this unit during the reporting period was additional construction to complete the new company area located at Buon Ea Thi, located to facilitate the upgrading and paving of QL-21.

The company relocated on 28 April 69 and is presently working to improve perimeter defenses and facilities and finish work on QL-21; to date 41,343 USMH, 15,005 VNMH and 13,050 Equipment hours have been expended on the company area.

This unit also performed upgrading on National Highway QL-1 primarily in the Ninh Hoa area. The work done was beneficial not only to the military but also materially assisted the civilian population.

The Bridge located in Ninh Hoa, was damaged when a vehicle ran off the side of it. This unit repaired the damaged treadway and handrails expending 180 VNMH and 30 Equipment hours in the process.

A road reconnaissance of QL-1 from Ninh Hoa to the North boundary of Khanh Hoa Province was made and a bill of materials to make necessary bridge repairs was submitted. Repair work will start on these bridges upon reciept of materials.

In addition to Lines of Communication, Company C engaged in construction effort in support of the Ninh Hoa area. For the Vinnell Power Distribution System at Ninh Hoa three 11' x 26' generator pads were leveled and prepared for form installation. A protective berm was constructed around a 30' x 75' fuel storage area and 200 yards of access road were upgraded and a 36' diameter culvert installed for drainage. A total of 230 USMH, 120 VNMH and 150 equipment hours were expended to complete this project.

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f. Delta Company Narrative

Delta Company accomplished a great quantity and variety of work during the quarter. Finishing touches were put on the company base camp as well as that of the neighboring 610th Engineer Company. Major efforts included placement of poles for electrical wiring, weatherproofing of bunker roofs with corrugated metal and installation of small diameter culverts to improve drainage. Nine guard bunkers at Delta Company, eight guard bunkers at the 610th area; two showers with water towers and three additional living-fighting bunkers to accommodate the numerous support personnel were constructed in the 610th area.

An extension to the 610th maintenance facility to accomodate MCALOC equipment repair was initiated during the reporting period. Construction support operations were enhanced by Delta Company pouring two concrete pads (850 sf) tp accommodate the 610th's new MCA 250 ton per hour rock crusher, and the construction of a seventy foot long, eighteen foot high headwall to accomodate Alpha Company's crushers relocated at the beginning of the quarter.

Delta Company also contributed to the MACV facility upgrade program, constructing a two story administrative facility and a one story billets for the Khanh Duong District Team. At the close of the reporting period the project was complete except for installation of electrical and plumbing fixtures.

The earthmoving platoon had a highly productive quarter. Approximately 10,000 cubic yards of fill were moved in headwall construction. Over 10,000 cubic yards of base course were spread on the company's sector of National Highway QL-21. Additionally, 15,470 tons of asphalt were used to pave 15 km of road from Khanh Duong, east toward Ninh Hoa. The earthmoving platoon also used dozers to enlarge a local pond providing a year round source of fish as food for local inhabitants.

There are three major bridges in Delta Company's Area of Responsibility. Two were destroyed by saboteurs, the third had a cracked abutment. This latter, a single span bridge, was raised with jacks, the damaged abutment removed and a new one poured. The other two bridges had their spans dropped. These were removed; concrete blasted; and stringers salvaged for reuse. "H" piles were transported to the bridge sites and final preparations for driving were in progress at the close of the quarter.

g. 610th Engineer Company (Construction Support) Narrative

The 610th Engineer Company (Construction Support) contributed substantially to the battalion's progress during the reporting period. With the unit move completed and the arrival of the MCALOC 250 ton per hour crusher, a sustained rock production capability was achieved and asphalt production increased correspondingly, by July surpassing the Group goal of 600 tons per day.

The development of the Khanh Duong quarry continued, being augmented by the addition of the A Company equipment early in the quarter. Also, the continued influx of MCA equipment especially D-9 tractors significantly aided production. Occassionally, sustained production was threatened by shortage of demolitions,

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however supply channels responded so that no loss in production occured. A second rock source, about 500 meters north of the original quarry was opened during the quarter, and its quartzite product proved to be a suitable substitute and blend for the granite from the original quarry, both as base course and asphalt rock. Over 70,000 cubic yards were produced during the quarter.

Upon installation of the 250 TPH crusher and due to the composition of the blast rock at the Khanh Duong quarry, it was discovered that a change to the feed conveyer was necessary to preclude excessive damage to the feed conveyor drive motor bracket and undercarriage. As a result, the motor was relocated [illegible] to the undercarriage section and protected by a heavy steel plate. The sides of the feed conveyor were reinforced with channel iron. In order to increase production of fines and preclude excessive wear of the cone liner, a 75 TPH secondary unit was installed in series with the cone unit and the screen was changed to feed rock 3/4" - 1½' through the roll.

h. 553rd Engineer Company (Float Bridge) Narrative

During the period 1 May through 31 July 1969, the 553rd Engineer Company (FB) supported the 35th Group extensively. In the past quarter, although the unit was used principally for its secondary mission of hauling and transportation, some bridging was accomplished. On 2 June, the 2nd platoon was tasked with the construction of a 38'4" M4T6 Dry Span on highway 11 near the large reservoir at Don Duong. Enemy activity had destroyed a concrete girder single span bridge in the early morning hours of 2 June 1969. Within hours after notification, the platoon had arrived, emplaced the span, and had traffic moving freely. Preparation for contingency bridge missions included reconnaissance of a site where the unit is tasked, upon 24 hours notification, with the installation of a 6 Float reinforced raft in support of combat operations in that area. All bridge components necessary for construction of the raft have been prestocked. On 31 July, the 5th platoon constructed a 61'8" combination dry span/trestle bridge at the bypass of a bridge on highway 1 approximately 15 miles south of Phan Rang. The existing bridge does not have adequate load capacity and the M4T6 Bridge was necessary to construct an adequate bypass. A reconnaissance was made of three other bridges in the area, and preparation for installation of similiar bridges has been accomplished.

During the reporting period the unit was tasked with construction of a 71' culvert at Dong Ba Thin. The concrete headwalls measured 12' x 1' x 4' and 8' x 1'x4 The unit also constructed a company area personnel bunker 44' x 12' x 8'.

The unit was most active in performing its secondary mission of transportation The company supported the 589th Engineer Battalion (Const) with a total of 457 five ton Bridge Truck days and 238-2½ ton Cargo Truck days, used for general hauling. The 553rd Engineer Company (FB) assisted in relocation of the 547th Asphalt platoon "B" Co, 577th Engr Bn (Const), and "D" Co, 589th Engr Bn (Const). The 864th Engineer Battalion (Const) has been supported with a total of 215 five ton Bridge Truck days and 85-2½ ton Cargo Truck days, since attachment.

During the last few weeks of the reporting period the unit has been training

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in the operation and maintenance of the 27' Bridge Erection Boats.

The unit was inspected twice during the reporting period. The unit passed very high on the Annual General Inspection, 15 May 1969 and scored 82 on the 18th Engineer Brigade Command Maintenance Management Inspection, 2 July 1969.

2. Section 2, Lessons Learned: Commander's Observations, Evaluations, and Recommendations.

a. Personnel

(1) MCALOC Equipment Operations

(a) OBSERVATION: Should the remainder of the MCALOC equipment arrive as scheduled there will be a shortage of personnel to operate TO&E equipment.

(b) EVALUATION: At present there exists enough of a shortage of TO&E equipment to have operators for the current quantity of MCALOC equipment on hand. However the programmed increase in MCALOC equipment will cause a number of pieces of TO&E equipment to be stood down for lack of operators, which would cause an attendent 1st echelon maintenance problem.

(c) RECOMMENDATION: That personnel augmentation be provided to those units scheduled to receive MCALOC equipment. These personnel should have the appropriate MOS consistent with the equipment to be received.

b. Operations

(1) Prevention of Shoulder Erosion

(a) OBSERVATION: The frequent rainstorms in the Central Highlands cause a large amount of shoulder erosion in mountainous areas.

(b) EVALUTION: Benching of wash out areas with a dozer and subsequent fill with blast rock will preclude further erosion.

(c) RECOMMENDATION: That blast rock be placed on shoulders where high rates of erosion are likely to occur in the upcoming monsoon season.

(2) Preventing Leakage in Bunker Roof

(a) OBSERVATION: Regular construction of bunker roofs calls for 3" x 12" decking with a waterproofing cover. A 3" x 12" timber box is built on top of this and fill is added for protection against mortar attacks. Due to availability tarpaper may be issued in lieu of waterproofing. The tarpaper does not offer proper protection against heavy monsoon rains.

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(b) EVALUATION: The leakage can be prevented by building a corrugated metal roof atop the fill box.

(c) RECOMMENDATION: Consideration be given to placing the metal roof during initial construction if the base camp is to be occupied during the monsoons.

(3) Offloading Paving Machine

(a) OBSERVATION: When paving in terrain with steep inclines or on mountainous roads with little or no shoulders, loading and off loading the Barber-Greene asphalt finishing machine can be a problem since it is often difficult to effectively place the lowbed where the paver can walk easily on or off the lowbed.

(b) EVALUATION: The bed of the trailer must be as close to the track level of the paver as possible, so that the paver can crawl easily onto the lowbed

(c) RECOMMENDATIONS: A special set of loading ramps can be built to provide a longer walkway with much less incline than a regular set of loading ramps.

(4) Utilising Reject Concrete Blocks

(a) OBSERVATION: When constructing a building of prefabricated concrete blocks, some blocks may be flawed, and unsuitable for finish work.

(b) EVALUATION: Alternate means to utilize these blocks should be found.

(c) RECOMMENDATION: The flawed blocks can be used very effectively in constructing rip-rap headwalls.

(5) Driving Long Pickets

(a) OBSERVATION: The driving of 8 foot pickets by hand is a tedious and difficult process.

(b) EVALUATION: When building revetments a front loader is frequently on hand for filling.

(c) RECOMMENDATION: The frontloader bucket can be raised above the pickets and push them very rapidly and effectively into the ground. Considerable time and labor can be saved.

e. Training

(1) MCA-LOC Equipment Operators

(a) OBSERVATION: The MCA-LOC equipment now in use has greatly enhanced operations but has also posed some problems.

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(b) EVALUATION: The limited number of licensing officials, coupled with the personnel turbulence in Vietnam often causes a unit to be caught without an operator for an item of equipment.

(c) RECOMMENDATION: An expanded training program can be developed where backup operators can be trained on a recurring basis.

d. Intelligence: None

e. Logistics: None

f. Organizations: None

g. Other: None

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as

RUSSELL A HEMM
LTC, CE
Commanding

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EGA-CO (31 July 1969) 1st Ind
SUBJECT: Operational Report of the 864th Engineer Battalion (Construction) for Period Ending 31 July 1969, RCS CS FOR-65 (R1)

DA, Headquarters, 35th Engineer Group (Const), APO 96312, 21 August 1969

TO: Commanding General, 18th Engineer Brigade, APO 96377

1. This headquarters has reviewed the Operational Report - Lessons Learned for the 864th Engineer Battalion (Construction) for the period ending 31 July 1969. The report is an excellent summary of the battalion's activities for the reporting period.

2. This headquarters concurs with the remarks of the Battalion Commander.

Harry A. Griffith
HARRY A. GRIFFITH
COL, CE
Commanding

AVBC-CG (31 Jul 69) 2nd Ind
SUBJECT: Operational Report of the 864th Engineer Battalion (Const) for the Period Ending 31 July 1969, RCS CSFOR-65 (R1)

DA, HEADQUARTERS, 18TH ENGINEER BRIGADE, APO 96377 1 SEP 1969

TO: Commanding General, U.S. Army Vietnam, ATTN: AVHGC-DST, APO 96375

1. This headquarters has reviewed the Operational Report - Lessons Learned for the 864th Engineer Battalion (Const), as indorsed by the 35th Engineer Group (Const). The report is considered to be an excellent account of the Battalion's activities during the reporting period.

2. This headquarters concurs with the observations and recommendations of the Battalion and Group Commanders, with the following comments added:

Reference: Section 1, paragraph c, and Section 2, paragraph a(1)(c). Overall personnel shortages are recognized as problem areas by this headquarters and USARV. This headquarters is in daily contact with the replacement battalions and USARV. Up-dated requirements, to include casualty losses and medevacs, are now being incorporated in these requirements. These procedures were recently discussed with a representative from USARV G-1, Personnel Management. Our personnel posture should improve considerably in the immediate future, if our requisitions are honored. USARV was also advised that notification of cancellations of lower grade EM fills would be of assistance in up-dating our requisitions. Currently, this information is being provided for senior grade personnel.

J. W. MORRIS
BG, USA
Commanding

CF:
1 - CO, 35th Engr Gp
1 - CO, 864th Engr Bn

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AVHGC-DST (31 July 69) 3d Ind
SUBJECT: Operational Report of the 864th Engineer Battalion (Construction) for Period Ending 31 July 1969, RCS CSFOR-65 (R1)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375

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 31 July 1969 from Headquarters, 864th Engineer Battalion (Construction).

2. Comments follow:

a. Reference item concerning "MACLOC Equipment Operations", section II, page 11, paragraph 2a(1); nonconcur. The concept which called for the use of MCA/LOC equipment with its higher production yield did not call for additional personnel. As a result there are no spaces within the command which could be made available for the recommended augmentation. The training and assignment of qualified operators for MCA/LOC equipment will have to be accomplished from within existing assets. Other similar units have solved this problem by cross training personnel with vertical construction skills to become operators of this equipment.

b. Reference item concerning "MCA-LOC Equipment Operators", section II, page 12, paragraph 2c(1); concur. Operator shortages should be projected and training requirements made known to the MCA/LOC Project Officers at Group and Brigade level. Required training and licensing can then be scheduled and conducted by contractor technical representatives.

FOR THE COMMANDER:

B. A. GOODWIN
CPT, AGC
Assistant Adjutant General

Cy furn:
864th Engr Bn
18th Engr Bde

GPOP-DT (31 Jul 69) 4th Ind
SUBJECT: Operational Report of HQ, 864th Eng Bn (Const) for Period Ending 31 July 1969, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 15 OCT 69

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

1. This headquarters concurs in subject report, as indorsed, except as follows.

2. Reference paragraph 2a, page 11. Headquarters, U. S. Army, Pacific, General Order 609, 31 July 1969, restores the battalion strength to 899 to be effective on 25 October 1969. This should alleviate some of the Military Construction Army (MCA) Lines of Communication (LOC) equipment operator problem as well as improve the battalion's work force in the LOC construction program.

FOR THE COMMANDER IN CHIEF:

C. L. SHORIT
CPT, AGC
Asst AG

Cy furn:
CG USARV

EGACBC-3 31 July 1969

SUBJECT: Operational Report of the 864th Engineer Battalion (Construction) for Period Ending 31 July 1969, RCS CS FOR-65 (R1)

ORGANIC UNITS

Headquarters and Headquarters Company, 864th Engr Bn (Const)

Company A, 864th Engr Bn (Const)

Company B, 864th Engr Bn (Const)

Company C, 864th Engr Bn (Const)

Company D, 864th Engr Bn (Const)

ATTACHED UNITS

553rd Engineer Company (Float Bridge)

569th Engineer Company (TOPO)(CORPS), Administration Only

610th Engineer Company (Construction Support)

1st Platoon 513th Engineer Company (Dump Truck)

Incl #1

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Experiences of unit engaged in counterinsurgency operations, 1 May 69 to 31 July 69.

5. AUTHOR(S) *(First name, middle initial, last name)*

CO, 864th Engineer Battalion

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