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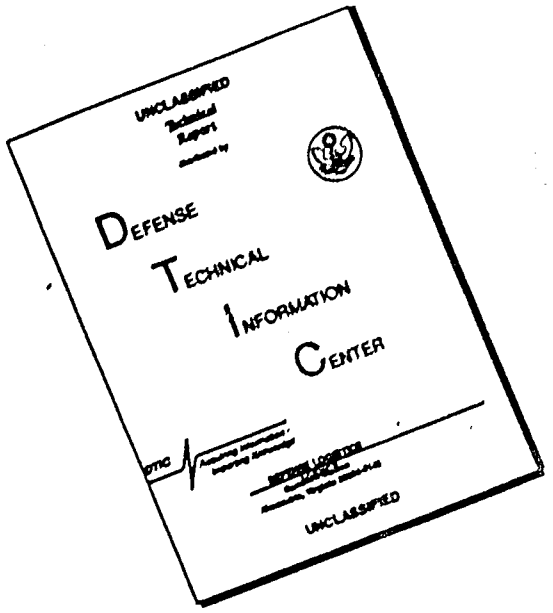

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IN REPLY REFER TO
AGAM-P (M) (2 Feb 68) FOR OT RD-674094 6 February 1968

SUBJECT: Operational Report - Lessons Learned, Headquarters, 35th Engineer Battalion (Cbt), Period Ending 31 October 1967

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:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
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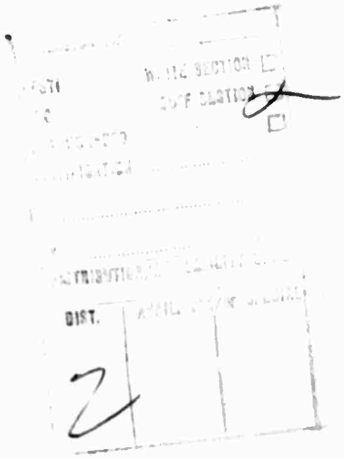

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DEPARTMENT OF THE ARMY
HEADQUARTERS 35TH ENGINEER BATTALION (COMBAT)
APO San Francisco 96238

EGD-BD-3 08 November 1967

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 October 1967

3

THRU: Commanding Officer
45th Engineer Group (Const)
APO 96238

Commanding General
18th Engineer Brigade
APO 96377

Commanding General
U.S. Army Engineer Command, Vietnam (Prov)
APO 96375

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

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

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

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Section 1, Significant Organization or Unit Activities

1. Command: During this quarter the effects of the first aniversary of the Battalion's arrival in Vietnam was felt. All four line companies and Headquarters Company received new company commanders. In addition, a new S-1, S-2, S-4, Property Book Officer, and Personnel Officer were appointed, of these, all but the Personnel Officer were appointed from Battalion assets. Six new lieutenants were assigned during the period, all initially as platoon leaders. The replacement system for officers has been adequate. Sufficient overlap was possible in key positions so that no loss in effectiveness occurred. The replacement of key Non-commissioned officers has also been adequate.

2. Personnel, Administration, Moral, and Discipline:

a. The following orgenizational changes occurred during the reporting period:

(1) On 21 August 1967, the Land Clearing Platoon was detached from this Battalion and attached to the 937th Engineer Group (Const).

(2) On 26 August 1967, the Rock Crusher Section of the 517th Engineer Company (LE) was detached from the 589th Engineer Battalion (Const) and returned to the 517th Engineer Company (LE) attached to this Battalion.

b. During the quarter the personnel section processed 263 persons for return to CONUS for reassignment or discharge. Replacements have come in slowly and administrative adjustments were made to relieve the "rotational hump", the Battalion organic strength is down to 77% with 59 personnel of this percentage detached with the Land Clearing Platoon. Morale in the Battalion has remained high with only 3 IG complaints, 23 Class II offenses and 1 AWOL. There have been 6 special Court Martials, 1 Field Grade Article 15, and 55 Company Grade Article 15's. A total of 47 awards, the Purple Heart, ACM, or the Bronze Star, were given.

3. Intelligence and Counterintelligence: Daily minesweeps of Highway QL-1 from LZ Hammond to the south of the Bong Son River have been conducted by assigned units throughout the report period. A daily minesweep of TL3A has been conducted since 29 September. On call minesweeps in the Battalion AO have been performed. Significant data on enemy employment of mines and boobytraps continues to be generated and disseminated through intelligence channels. Incidents during the period included two bridges burned, three bridges partially destroyed, 4 mining incidents, one boobytrap, 11 sniper incidents, one ambush, and two mortar attacks; accounting for 14 WIA and 1 KIA to personnel in this Battalion. All possible significant intelligence data were collected from the incidents. The following significant deliberate reconnaissances were conducted during the period:

a. Daily reconnaissance of Highway QL-1 in Battalion AO.
b. Reconnaissance of possible fill sites.
c. Reconnaissance of TL3A (north).
d. Aerial and ground reconnaissance of QL-1 from Qui Nhon to Tuy Hoa.
e. Aerial and ground reconnaissance of LTL6B from its north junction with QL-1 to the south junction with QL-1.

Daily intelligence data continued to be generated from local allied units and disseminated through intelligence channels.

4. Plans, Operations, and Training:

a. The Battalion's assigned missions during this period were as follows:

(1) LOC maintenance and upgrading of Highway QL-1 to MACV Standards from the junction of QL-1 and QL-19 to Tam Quan from 1 August 1967 to 29 September 1967.

(2) LOC maintenance and upgrading of Highway QL-1 to MACV Standards from the Phu Tai ASP to the south bank of the Song Lai Giang (Bong Son) River BR869954) from 29 September 1967 to 31 October 1967.

(3) Continued operational support to the 1st Air Cavalry Division (Airmobile) within the above boundaries to include the upgrading of Highway TL3A to a one-way all weather route from the junction at QL-1 to LZ Pony.

(4) Reconnaissance of Highway QL-1 between Qui Nhon and Tuy Hoa, and of Highway LTL6B in preparation for upgrading.

(5) Operation of a rock crusher at the Phu Cu Pass Quarry (BR881887).

(6) Operational support to the 7/15th Artillery Battalion at LZ Uplift and the 3/18th Artillery Battalion at LZ Pony.

(7) Self-Help construction in support of the 41st Artillery Group at Phu Cat Airbase.

(8) Culvert installation on Route 442.

(9) Operational Support to MACV Advisory TEAM at the Phu Cat Training Center.

b. Company A: Company A continues its mission of LOC upgrading of Highway QL-1 between the Phu Ly Bridge (BR885586) and Bridge QL1367 (BR932759), a distance of 10.5 miles. Fill in the amount of 52,000 cubic yards was hauled, placed compacted and shaped to being this section of road to MACV Standards. Seven miles of road received 19800 cubic yards of 3 inch (-) crushed base course in a six-inch lift and 27,250 gallons of asphalt cutback and emulsion as seal and tack coats to bring the total length of this section of road to recieve base course to 8 miles. Six of this eight mile stretch has been paved with hot-mix asphalt placed in a 2½ inch layer. Due to the total asphalt requirements in this area, paving has been limited to Sunday s only. The work along this section of road also included emplacing 180 linear feet of 24" to 60" diameter culvert and the construction of 4 bypasses. Company A constructed 4 Class 35/50 semi-permanent timber trestle bridges totaling 195 linear feet of bridging. Construction consisted of pile revetment abutments, pile bents and piers, and timber stringers and decking. Company A provided the 41st Artillery Group at Phu Cat Airbase with technical aid, material, and engineer equipment in the self-help construction of their cantonment area completing a messhall, two tropical billets, a radio repair shop, a medical station, and a TOC bunker. Company A provided security for the foot reconnaissance of LTL6B and conducted daily minesweeps of QL-1 from LZ Crystal to LZ Uplift.

c. Company B: Company B continued to provide operational support for the 1st Air Cavalry Division (Airmobile) in the An Loa Valley and Bong Son Plains area and on Highway TL3A. The support included the construction of one timber trestle bridge of 24 feet in length and the reconstruction of a 221 foot timber trestle bridge destroyed by enemy action. On 15 August the 221 foot bridge was again destroyed by enemy action and completed again in September. Both bridges are Class 35/50 pile revetment abutment, pile bent, and timber stringer and decking bridges. In the An Loa Valley and Bong Son Plain, bulldozers worked in support of clearing operations. Construction on Highway QL-1 brought sections totaling 3 miles to MACV Standards and TL3A is presently being upgraded to an all-weather single lane route. The construction of these two routes included the emplacement of 552 linear feet of culvert, 10750 cubic yards of earth fill, 6031 cubic yards of river run fill as road sub-base, and 924 cubic yards of crushed 3"(-) base course. Company B removed damaged M8A1 matting from the last 1480 linear feet on the north end of English Airfield. The runway sub-base was scarified, graded, and compacted and sealed with RC-3 and sand. New matting was emplaced and anchored. The company performed a daily minesweep of QL-1 from Bong Son south to Bridge QL1374 (BR916838) and of TL3A from QL-1 to LZ Pony.

d. Company C: Company C continued upgrading QL-1 to MACV Standards from Bridge QL1367 (BR932759) to the south bank of the Song Lai Giang River (BR869954), a distance of 13.7 miles. The construction consisted of hauling, placing, grading and compacting 67,000 cubic yards of earth fill to bring 13 miles of the company's section of road to MACV standard width. The 13 mile section received 30,000 cubic yards of 10"(-) river run as a sub-base and 28,000 cubic yards of 3"(-) crushed rock as a base course. 18,900 gallons of asphalt emulsion and cutback were spread as seal coat and tack coats. The construction also included the emplacement of 423 linear feet of 24" to 60" diameter culvert. Company C constructed one Class 35/50, timber trestle, pile revetment abutment, pile pier, timber stringer and decking bridge 96 feet in length. Company C also repaired Bridge QL1379 (BR879898) a 60' structure which was damaged twice through enemy action, and Bridge QL1380 (BR872913) a 40' structure damaged by enemy activity. The damage to these bridges was caused by demolitions used to cut piles and caps resulting in the need for extensive repairs. Company C also provided operational support to the 7/15th Artillery Battalion at LZ Uplift in the construction of artillery firing platforms. The company provided one platoon for security at night at the rock crusher at the Phu Cu Pass. The crusher is operated by the 517th Engineer Company (LE) under the operational control of Company C and was located at the Phu Cu Pass to provide crushed rock in that area. The crusher has made possible the extensive finish roadwork done in Company C's AO and produced 52,000 cubic yards of 3 inch (-) during the report period. Company C has conducted a daily minesweep of QL-1 from LZ Uplift to Bridge QL1374 (BR916838).

e. Company D: Company D continued in its mission of LOC upgrading on QL-1 in its area of operation from the Phu Tai ASP to the Phu Ly Bridge (BR885586). Company D has constructed 6 semi-permanent timber trestle bridges totaling 712 linear feet of bridging. Construction consisted of pile revetment abutments, pile bents and piers, and timber or steel stringers depending on the length of spans. Company D has constructed two permanent bridges 60 feet and 120 feet in length utilizing reinforced concrete abutments, tubular steel piles for the pier on the 120 foot bridge, 36WF230 stringers, and timber decking. Company D has upgraded 7.5 miles of QL-1 by hauling, placing, shaping and compacting 28,600 cubic yards of fill, 11,600 cubic yards of 10"(-) river run as sub-base. Two miles of this

section have received a 6 inch lift of 3 inch (-) base course totaling 6,200 cubic yards. Asphalt cutback and emulsion in the amount of 10,500 gallons have been spread as a seal and tack coat in preparation for asphalt paving of the two mile section. Company D also performed maintenance on brides in their area constructed in 1966 and was responsible for the routine maintenance of LZ Hammond airfield. Early October rains of a higher than normal intensity caught four bridges not completed in the Company D AO and inundated the bypasses. However, due to the effort on Company D's part the road was closed only twice and then for only very short periods. The company conducted a daily minesweep of QL-1 from LZ Hammond north to LZ Crystal.

f. 517th Engineer Company (LE): The 517th minus its third platoon has been supporting the line companies in each area of operation greatly increasing the equipment capabilities of the Battalion. The rock crusher at the Phu Cu Pass operated by the 517th along with its 290 M earth movers, bucket loaders, graders, and dozers made possible the amount of work that Company C was able to accomplish before the monsoon rains. Without the 517th's support mission, the Battalion could not have accomplished as much as it did in the amount of time alloted. The number of cranes TO&E to the 517th also increased the pile driving capability of the Battalion making possible the simultaneous construction of several bridges. In addition, the 517th has been providing operational support to the MACV Advisory Team at the Phu Cat Training Center. The construction to date includes trainfire berms, range road construction, and the placing of a concrete messhall pad. The 517th has taken over the support of the 41st Artillery Group at Phu Cat Airbase in the construction of that cantonment area.

g. 1st Platoon, 70th Engineer Company (DT): The 1st Platoon, 70th Engineer Company (DT) has greatly increased the haul capability of the Battalion. Its 24 5-ton dump trucks had a major part in the amount of fill, sub-course and base course that the Battalion was able to haul this quarter.

h. Training: Battalion training during this quarter consisted mainly of unit operations and OJT. Motor stables and preventive maintenance were conducted daily. Command information classes were conducted on schedule. Other subjects taught during the period included; counter-ambush tactics, weapons familiarization, land clearing operations, care and cleaning of equipment and personal hygiene.

5. Logistics: During the report quarter the significant logistical operations involving the S-4 revolved around the support of the bridging portion of the LOC upgrading and operational support program. The procurement, transportation, inventory and dispersement of Class IV material for bridge construction was a tremendous job and often almost impossible due to a shortage of material. On one occasion a convoy was dispatched to Cam Rahn Bay to procure bridging material not available at Qui Nhon. Class I, II, III, and IV materials were procured as needed without delay at any time. The Battalion operated four water points, one at LZ Hammond, one at LZ Uplift, and two at LZ English. The Battalion is short one water point. During the period the 20 ton truck mounted cranes were replaced by rough terrain cranes model 2380. A total of 14 5-ton dump trucks were replaced with new trucks.

6. Force Development: During the quarter the Battalion provided recommendations for Modification Tables of Organization and Equipment for Engineer Combat Battalions, Corps and Army, and Engineer Light Equipment Companies. General recommendations included:

a. Approval of "G" Series TO&E with modifications for Combat Battalion and Light Equipment Companies.

b. Modification to "G" Series for Combat Battalions generally added GREATER soil compaction, pile driving, and materials handling capabilities; added soil testing capability and augmented survey capability.

c. Modification to "G" Series for Light Equipment Companies generally involved changes to reflect current issued equipment (e.g. 75TPH crusher IN LIEU OF 25 cubic yards per hour). Increase in low bed trailers was recommended to increase mobility of the unit.

7. Command Management: During the quarter a major change was made in the construction management within the Battalion. Priority of construction had previously been directed towards construction of semi-permanent bridges. Due to the need for speed of construction and the need for special skills to achieve the speed, previous management techniques included assignment of all bridge construction to a single line company. Control of equipment was maintained at Battalion to best influence priorities. Task assignments for other companies were directed by Battalion consistant with available equipment. The attachment of an Engineer Company (LE)(-); the approach of the end of bridge construction; the need for large scale earth moving; and the future monsoon maintenance required on the highway, all dictated a change in management structure. Each line company was assigned a new area of responsibility along the highway and all remaining bridges and earthwork within the company AO's were the responsibility of the companies concerned. Battalion influenced operations by attachment of elements of the Light Equipment Company and Dump Truck Platoon to line companies and by assignment of completion dates. The results of the change are to be considered excellent. Unit commanders with close personal guidance from the Battalion Commander and Operations Officer quickly learned techniques of equipment management. Units will remain responsible for all maintenance and repair in their AO during the northeast monsoon. Units are familiar enough with their areas and set up to operate independantly should they be isolated by the monsoon or enemy action.

8. Inspector General: Inspector General activities were limited to receipt of and local action on complaints and requests for assistance by the acting Inspector General.

9. Information: The Battalion continued progress in the field of public information. In the expanding program the newly established special duty information specialist increased coverage of activities of the Battalion to include television, radio, and more timely photographic coverage.

10. Civic Affairs: In support of Revolutionary Development activities and civic action programs, elements of the Battalion continued to make progress in this area and gained increasing support from GVN officials, CIDG, RF/PF, and local Vietnamese in their desire to help and learn and their ability to provide material.

The Battalion aided local Vietnamese at Bong Son by placing a dust palliative on their streets and in the construction of two schools. Local farmers in the area have been aided with the construction of irrigation facilities. The Battalion also aided Team # 11, 41st Civil Affairs Company and local Vietnamese to construct two Class 12 bridges on Highway 504. Needed commodities have continually been donated by personnel of this Battalion to local schools and orphanages. On the Go Boi Road at Luong Quang Hamlet, elements of this Battalion constructed blackboards and desks for the school and supervised local citizens in the construction of a roof for the school.

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

a. Personnel: N/A

b. Operations:

Item: Parking on Inclines

Discussion: Operations on steep slopes requires the chocking of wheels when vehicles are stopped. To insure that chocking was used and that personnel were aware of the inherent danger of stopping without chocks, it was decided that strong positive steps needed to be taken.

Observations: We have sawed scrap 6x6 and 6x8 material for use as chock blocks when parking and made this a part of each vehicles OVM. SOP calls for using the blocks anytime the vehicle is not in use.

Item: Coordination of Construction with Advisors and Locals

Discussion: One of the major considerations for the construction of Bridge QL1330 (BR929419) was the demolition of the existing French reinforced concrete bridge. The demolition took nine days and utilized approximately 890 pounds of explosives. Due to the lengthly demolition time and the quantity of explosives necessary, public safety was a major concern. An initial contact with the An Nhon Advisory Team proved to be extremely valuable. Not only did they assist in notification of the local nationals of our demolition, but they also provided an interpreter for six of the nine days of demolition. The platoon leader was introduced to the local village chief who was allowed to dispose of the valuable reinforcing in a manner which benefited the village. On many occassions the village chief interceded on our part when it was necessary for our operation to extend into private property. The advisory Team provided a day security guard which was effectively intergrated into the platoon's day guard system. A Popular Forces platoon supplied night security which was extremely valuable in that it was possible to leave materials on site which would, if not for this guard, have been stolen. This night security saved many man and equipment hours which would have been necessary to load and unload materials daily. The key element in this coordinated effort was the district advisor. We were able to perform minor engineering efforts for the accomplishment of the advisor's mission. These efforts did not interfere with our operation and aided the extention of our basic mission into the area of civic action.

Observation: Operations can be better scheduled and carried out when engineer personnel are not required to perform as interpreters and demolition security guards. Advisors can perform valuable services for the engineers, and, at the same time, they are furthering their own mission.

Item: Cuts in Bypasses

Discussion: Bridge construction along Highway QL-1 necessitated the construction of bypasses around the gaps to maintain a continuous flow of traffic during the construction of timber trestle bridges. After completion of the bridges, many of the bypasses were cut in a hasty manner with a D7E dozer or other piece of equipment to salvage the culvert and allow for freer passage of water through the constructed area. The insecure nature of the operations prevents complete removal of the bypasses since destruction of the bridge may necessitate a rapid replacement of a cut bypass. To preclude the possibility of excessive loss in replacement of a cut out bypass, care should be used in the initial cutting of the bypass. By cutting a bypass with a clamshell or a backhoe, and placing the removed fill on the bypass several advantages can be obtained. A roadblock will be formed preventing anyone driving into the cut and a neat cut will facilitate any construction and replacement of a culvert. Also, a ready supply of fill will remain available to push over the culvert thereby eliminating the need for a long fill haul to install the culvert.

Observation: Care taken in cutting bypasses around completed bridges can save unnecessary manhours, equipment hours and materials in replacing the bypass should the bridge be destroyed.

Item: Use of 290M's to Haul Stockpiled Crushed Rock.

Discussion: Recent use of a 75TPH crusher to crush river run rock resulted in the creation of a stockpile that would build up faster than a front loader and a 5 ton dump truck could haul ~~the road~~ away. Clark 290M's were substituted for the front loader and the 5 tons. By reshaping the stockpile with a D7E dozer, the Clark 290M's were able to pick up the crushed rock and haul it to a laydown site. This provided an efficient means of removing rock from the stockpile, and released a front loader and 5 ton trucks for employment elsewhere.

Observation: Clark 290M's and a D7E dozer can be efficiently employed in the removal of stockpiled crushed rock.

Item: Numbering Decking and Treadway During Reconstruction of Damaged Bridges.

Discussion: Recent incidents of timber pile bridge damage by VC/NVA units were of the following nature: two or three center piles of the intermediate bent were blown, cutting the cap and leaving the remainder of the bridge undamaged but incapable of handling military traffic. The repairs necessitated the complete removal of two spans of the bridge, replacement of the piles and the cap, replacement of the remainder of the spans. During one repair of this type, decking and treadway were pulled up without being marked. Replacing this decking and treadway became a maze of confusion and a great deal of additional material was required to replace that which did not fit properly or had to be cut. During a later repair of the same type, a system was devised of marking the pieces using letters from left to right and numbers from front to back. By using this system, it was possible to replace the decking and treadway with a minimum of waste and replacement of materials.

Observation: Numbering of roadway and decking before removal from a damaged bridge can expedite replacement with a minimal waste of materials.

Item: M8A1 Matting

Discussion: In the placing of long stretches of M8A1 matting during the repair of English Airfield, it was noted that the matting had a tendency to angle from the strip centerline.

Observation: It was discovered that the matting could be straightened appreciably by utilizing two pieces of matting, modified by attaching lifting shackles to permit the attachment of a chain, which were attached to in place matting on either side of the runway and pulled by 5-ton trucks. This was done after every 10-12 rows of matting and had the added effect of tightening as well as realigning the matting.

Item: Timber Trestle Bridge

Discussion: Bridge QL1391, located near Tam Quan, proved to be a regular target for Viet Cong activity. It was burned on two occasions and as a result provided a significant obstacle to northbound traffic. In order to provide a firebreak, the center span of the 221 foot bridge was constructed completely of steel components. Two hollow steel pile bents of four piles each were driven and filled with concrete, the piles were then capped with steel I-beams and steel stringers six feet in length were placed. The decking consisted of 3/4 inch steel plate placed across the stringers.

Observation: This method was utilized to prevent a fire starting on one half of the bridge from consuming the entire structure. An additional benefit arising from this method of construction is that the steel span can be used as an intermediate support for a Bailey Bridge in the event one was required across the entire 200 foot gap.

Item: Timber Trestle Bridge

Discussion: When Bridge QL1391 was burned initially the high level of the water under the bridge prevented the piles from being burnt completely to the ground. This provided the opportunity to cut the existing pile stubs level and placing a 12x12 sill across them on which a post bent could be constructed. Adjacent bents were then braced together to provide longitudinal stability.

Observation: This method of construction saved considerable time in that the majority of the bents did not require new piles to be driven. This was exceptionally critical at this time due to a general lack of piles and pile driving equipment within the Battalion.

Item: Upgrading of Drainage Structures

Discussion: When an inadequate culvert is replaced by a bridge or a larger culvert in a different but nearby location, damage can be caused to the irrigation system of the local farmers. Often the local farmer will attempt to reopen the original culvert, causing damage to the road.

Observation: Care must be taken when upgrading culverts so as not to damage the local irrigation system. The bottom of the new culvert must be at least as low as the original one replaced and preferably along the same center line.

Item: Driving Piles into Deep Water with Rock in River Bottom

Discussion: It is difficult to drive piles straight through rocky soil, especially when buried under fifteen to twenty feet of water.

Observation: Pushing loose fill into the gap and driving the piles through the loose fill and into the material below results in a straight pile. The loose fill has a negligible effect on pile penetration but provides enough lateral support to keep the pile straight when going through a rocky river bottom.

Item: River Run Rock

Discussion: In the construction of sub-base and base course on QL-1 it became necessary to find a ready source of rock for sub-base as available crushers in the area were committed to the maximum production of 3 inch (-) base course. Two seprete river run gravel sites were located in stream beds in the Cha Rang Valley and just north of the Phu Ou Pass. The river run was loaded into dump trucks by Front Loaders and also loaded by 290-M scrapers. It was found that well graded material including rock as large as 20 inch(-) could be put down on the shoulders of the road and 10 inch (-) elsewhere. On over 16 miles of road the river run was placed as a sub-base and it has proven to be highly satisfactory in this application. At the Phu Ou Pass, river run rock with sandy fines was fed into the crusher to produce 3 inch (-) base course and further proved the versatility of this resource. It has excellent compaction and surface wearing characteristics accepting an asphalt surface seal with good results

Observation: River run rock is readily available in many stream beds in Vietnam and can be highly valuable to engineers. As the streams dry up after the monsoons, possible river run sites should be located as gravel resources for engineers in heavy construction as well as raw material for crusher sites.

c. Training and Organization: N/A

d. Intelligence:

Item: Bridge Security

Discussion: Bridges along Route QL-1 that do not have permanent security provided can be expected to be destroyed, especially more critical bridges where bypasses are difficult. Bridge QL1391 has been destroyed twice, Bridge QL1387 destroyed and damaged once, Bridge QL1380 damaged once, Bridge QL1379 damaged twice, and Bridge QL1343 destroyed.

Observation: Bailey Bridges at QL1389 and QL1386 and the Phu Ly Bridge (QL1346) have not been damaged. These bridges have a permanent guard established on them. This security is a must for all bridges.

e. Logistics: N/A

f. Other:

Item: Starting Motor Rough Terrain Cranes

Discussion: Considerable difficulty was experienced with the starting motor for the crane engine of the Rough Terrain Crane. The starter was inferior in design and several failures were experienced.

Observation: We found that the starting motor for the Allis Chalmer HD16M medium tractor fit perfectly on the Rough Terrain Crane. No further difficulty has been experienced with this change and an EIR has been subsequently forwarded through channels.

Section 2, Part II, Recommendations:

1. It is recommended that attention be given to the lack of compaction equipment allocated to a combat engineer battalion under the "E" series TO&E. Extensive road upgrading is being undertaken by engineer units in Vietnam, and proper compaction is the key to any road especially with the climate conditions existing in Vietnam. The lack of proper compaction equipment has resulted in road failures in many instances where they could otherwise have been avoided. The compaction equipment is needed not only for road construction, but in any type of construction requiring a stablized base such as airfields, helipads and storage areas.

2. It is recommended that any LOC upgrading plans include a detailed plan for security of key bridges constructed in insecure areas. Security plans must be made at the earliest possible time, preferably during long range planning stages. It is evident from the number of bridges destroyed in this Battalion's AO that such a plan is needed.

David N. Hutchison

DAVID N. HUTCHISON
LTC, CE
Commanding

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EGD-3 1st Ind

SUBJECT: Operatinnal Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 October 1967.

HEADQUARTERS, 45TH ENGINEER GROUP (CONST), APO 96238, 22 November 1967

THRU: Commanding General, 18th Engineer Brigade, ATTN: AVBC-C, APO 96377
Commanding General, USA 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 35th Engineer Battalion (Combat) for the Quarterly Period ending 31 October 1967 is forwarded.

2. Concur with observations.

K. T. SAWYER
Colonel, Corps of Engineers
Commanding

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AVBC-C (8 Nov 67) 2nd Ind CPT Storat/dne/DBT-163
SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 October 1967

Headquarters, 18th Engineer Brigade, APO 96377 28 NOV 1967

TO: Commanding General, U.S. Army Engineer Command, Vietnam (Prov)
ATTN: AVCC-P&O, APO 96375

1. This headquarters has reviewed the report submitted by the 35th Engineer Battalion (C) (A), as indorsed, and considers it an accurate and excellent description of the unit's activities and accomplishments during the reporting period ending 31 October 1967.

2. Concur with the recommendations of the Battalion Commander with the following comment added:

Reference Section 2, Part II, para 1. Standardized MTOE 5-36G submitted to USAECV(P) on 20 October 1967 requested increased allowances of towed compaction equipment in the Equipment Platoon of Headquarters & Headquarters Company. Standardized MTOE 5-58G submitted at the same time requested increased allowances of self-propelled compaction equipment for the Light Equipment Company.

1 Incl
nc

HAROLD J. ST CLAIR
Colonel, CE
Deputy Commander

PROTECTIVE MARKING CANCELLED
WHEN SEPARATED FROM BASIC
DOCUMENT.

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AVCC-P&O (8 Nov 67) 3d Ind
SUBJECT: Operational Report - Lessons Learned (RCS-CSFOR-65), for Quarterly Period Ending 31 October 1967

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

8 DEC 1967

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

This headquarters concurs with the 35th Engineer Battalion's CRLL report and previous indorsements as written, subject to the following comments:

Reference Section 2, Part II, paragraph 2, page 11, item concerning LOC upgrading plans: Current bridge designs include protective devices and bunkers where appropriate.

FOR THE COMMANDER:

PAUL A. LOOP
Colonel, CE
Chief of Staff

Info cys furn:
CG, 18th Engr Bde
CO, 45th Engr Gp
CO, 35th Engr Bn

THIS MARKING IS CANCELLED WHEN SEPARATED FROM THE MATERIAL BEARING A PROTECTIVE MARKING

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18

AVHGC-DST (8 Nov 67) 4th Ind
SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending 31 October 1967

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96375 2 JAN 1968

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 period ending 31 October 1967 from Headquarters, 35th Engineer Battalion (Combat) (AZ5A) as indorsed.

2. Concur with report as indorsed. Report is considered adequate.

FOR THE COMMANDER:

JOHN V. GETCHELL
Captain, AGC
Assistant Adjutant General

Copies furn:
HQ, 35th Engr Bn (Combat)
HQ, USAECV (P)

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GPOP-DT(8 Nov 67) 5th Ind
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 from HQ, 35th Engr Bn (Cbt) (UIC: WAZ5AA) (RCS CSFOR-65)

HQ, US ARMY, PACIFIC, APO San Francisco 96558 12 JAN 1968

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:

HEAVRIN SNYDER
CPT, AGC
Asst AG

UNCLASSIFIED
Security Classification

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4. DESCRIPTIVE NOTES (Type of report and inclusive dates)

Experiences of unit engaged in counterinsurgency operations, 1 Aug - 31 Oct 1967

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

CO, 35th Engineer Battalion (Combat)

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