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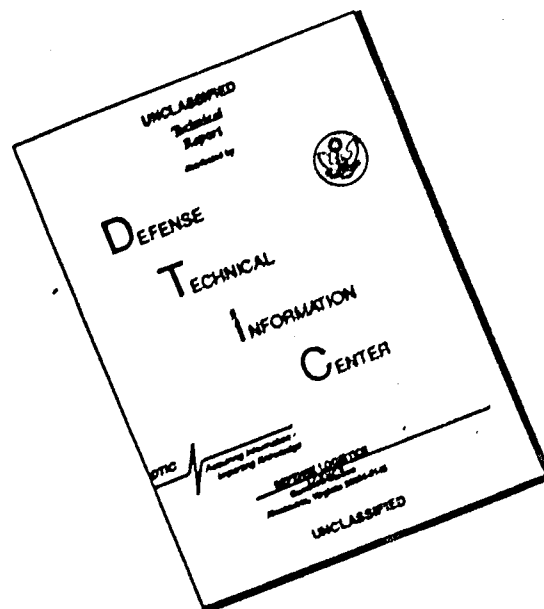
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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGDA (M) (31 Oct 69) FOR OT UT 693145

10 November 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 70th Engineer Battalion, Period Ending 31 July 1969

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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.

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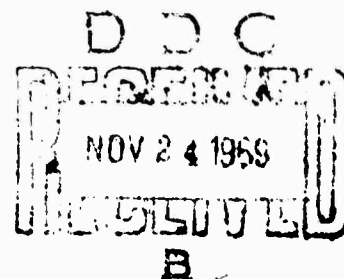
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③ DEPARTMENT OF THE ARMY
HEADQUARTERS, 70TH ENGINEER BATTALION (COMBAT)(ARMY)
APO 96297

31 July 1969

SUBJECT: Operational Report of 70th Engineer Battalion (C)(A) for period
Ending 31 July 1969, RCS, CSFOR-65 (R1)

Commanding Officer
35th Engineer Group (Const)
APO 96312

Commanding General
18th Engineer Brigade
APO 96377

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

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

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

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693145

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<u>Position</u>	<u>MOS</u>	<u>Grade</u>	<u>Auth</u>	<u>Assigned</u>	<u>90 Day Loss</u>
Sqd Leader	12B40	E-6	40	11	3
Supply Sgt	76Y40	E-6	5	1	0
Medical Spec	91G20	E-6	1	0	0
Medical NCO	91B40	E-6	1	0	0
First Cook	94B20	E-6	5	0	0

(a) The severe shortage of squad leaders (E-6) is only partially offset by young aggressive E-5's filling the positions. Many E-5's lack the necessary experience for accomplishment of independent squad size missions. This places the added task of detailed job-site technical supervision on platoon sergeants and platoon leaders who should be supervising on a broader level. The absence of comco and motor chiefs severely hampers the operations of these two sections. The acting section chiefs are doing their best but lack the necessary experience and leadership ability to operate smooth and efficient sections. Added supervision must be furnished by the additional duties of motor and comco officer. Since these personnel are also platoon leaders, time is taken away from their primary function of providing leadership, direction and guidance to their respective platoons.

(3) The battalion has not experienced any major moves during this quarter. One platoon of C Company is presently located at Duc Xuyen while working on the airstrip there. A squad from B Company is also working on an airstrip at Duc Lap. At present the battalion is located as follows:

(a) Camp Jerome, Ban Me Thuot - HHC, D and D Companies

(b) Hot Rocks Quarry - B Company and 131st Engr Co (LE)

(c) Khanh Duong - A Company.

(4) The unit morale is even higher now than last period due to the expanded living facilities. All the men live in living/fighting bunkers. The perimeter lighting system and guard towers will soon be installed which will ease the load on guard duty.

(a) An average of 28 article 15's per month were administered for the battalion. There were 37 field grade article 15's and 47 company grade article 15's during the quarter. Also during the period, there were 5 summary, 1 General, and 10 Special Court Martials

(b) The battalion chaplain conducted protestant services weekly at the battalion base camp and Hot Rocks quarry. The Catholic Chaplain from MACV also gave services weekly at Camp Jerome and at Hot Rocks.

c. Intelligence and Counter-Intelligence

(1) During the quarter, the S-2 section performed its mission of collecting and disseminating intelligence, of being a repository for all secret

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documents and of coordinating all secret documents and of coordinating civic action, MEDICAP, and PSYOPS.

(a) Intelligence reports are obtained daily from Parlac Sector and the 23rd Division, ARVN, in Ban Me Thuot. This information is disseminated at evening staff meetings, at the weekly commanders conference and as the situation warrants.

(b) During the period, the 70th Civic Action Team, coordinating with the local MACV Civic Action Team and the area Community Relations Committee assisted local villages, with emphasis placed on self-help. Education institutions in Ban Me Thuot area continued to receive special attention. Repair work was finished on a roof and wall of a damaged school, and the volunteer English teaching program was continued until the school dismissed for summer vacation. The Battalion also continued restoration of the Pif-fel Bridge south of Iao Thien.

(c) During this period, 1200 lbs of scrap lumber were donated and a total of 300 man days were expended on Civic Action projects.

d. Plans, operations and training

(1) plans - During the period 1 May 1969 to 1 August 1969, the 70th Engineer Battalion (Cbt)(A) performed its mission which was to:

(a) Command assigned and attached units.

(b) Plan and coordinate operations of units assigned or attached to the Battalion.

(d) provide non-divisional engineer support required for tactical operations in the battalion area of responsibility.

(d) Actively maintain a perimeter defense at all base camp and job sites occupied by the battalion or subordinate units and to defend assigned perimeters against enemy attack.

(2) Combat/operational support

A Company

(a) A daily reconnaissance (visual) mine sweep was made from BQ534-106 to BQ539110 on the access road leading from the company area to Q21. To date no mines have been found on the access road. On 27 July 1969, four (4) men from second platoon were taken to the new location of the 2/35/4th Infantry (grid coordinates (BQ385164) to assist in a mine sweep operation. The infantry personnel had run over an old land mine with a 2 1/2 ton vehicle causing damage to the vehicle and injuries to personnel. No additional mines were detected by the mine sweep crew.

(b) Bypass 21/30 was partially washed out due to excessive rainfall.

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(b)

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A Company, 70th Engr Bn constructed an expedient fording area on the upstream side of the bypass to allow traffic to pass while the bypass was restored. Two (2) 48"x40' culvert and one (1) 60"x48' culvert were installed and backfilled by the use of D-7-E dozers. The project began and was completed the same day. Guard rails were constructed on the downstream side to prevent vehicles from getting too close to the soft shoulders. An expedient concrete headwall was poured on the upstream side to prevent eroding of roadway around culvert.

(c) on or about 4 June 1969, the downstream bypass of bridge 31 was completely destroyed by enemy sabotage. The bypass consisted of two 48" culverts with concrete headwalls. An expedient dry span was constructed by D Company, 70th Engineer Battalion to allow a large convoy to get access across the blown gap. A Company, 70th Engineer Battalion then began constructing a new bypass on the upstream side. Two (2) 60"x60' and one (1) 72"x60' culverts were installed and backfilled. An expedient concrete headwall was poured on the upstream side and guard rails installed on the downstream side of road to protect soft shoulders from heavy vehicles.

(d) on 16 May 1969, A Company, 70th Engineer Battalion was called upon to erect a 120' double-double (21 span) Bailey Bridge to replace the old one located upstream of bridge 34. It was feared the old bailey bridge would be destroyed by the oncoming monsoon. A new bridge was required at a higher location. The bridge was constructed approximately 30' above the existing road elevation. D Company, 70th Engineer Battalion assisted A Company, 70th Engineer Battalion by transporting the materials to the job site and in construction of the bridge. A total of twenty (20) hours were needed to construct the double-double bailey bridge. 131st LE Co furnished a rough terrain crane to assist in erecting the bridge and were also responsible for building the new approach-ways.

(e) periodic seven-man patrols have been conducted to provide information on the surrounding area especially the south of the compound. Also roving patrols were utilized around project sites where enemy activity was heaviest.

(f) During the past three months, the major objective was to pave QL21 east and west of A Company, 70th Engineer Battalion. A Company was called upon to furnish from three to five dump trucks to support D Company, 864th Engineer Battalion (Const) with paving operations toward Ninh Hoa, east of A Company, 70th Engineer Battalion.

B Company

(a) on 4 June 1969 work was started on repairing the torn and eroded sections of the run way at Duc Lap. The T-17 membrane had to be cut and laid open so the soil could dry. Mud was removed and new fill brought in and rolled. This was accomplished with a bucket loader. A 1 1/2' ton roller was utilized to compact the material. Three foot strips were cut from a T-17 repair kit to join the sections that were cut. Twelve inches of surface on each side of the strip were glued. The T-17 membrane was temporarily held in place with 60d nails which made it easier to glue the strips. Completion day is unknown at this time due to the shortage of glue.

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C Company

(a) Repair of Duc Xuyen Airfield, directive 205-5303-1-11 is a high priority project that was assigned to C Company on 23 April 1969. The project consists of repairing and upgrading of the airfield to retain its Type I - C7A capacity during monsoon's. The project was assigned to the second platoon and work was started in early May. Due to the lack of roads in the area, all materials and personnel must be airlifted to the job site. In order to utilize C7A aircraft for moving materials, it was necessary to make temporary repairs to the roadway to accommodate these aircraft. The existing matting was reinforced with rebar welded to hold it in place and the airfield was temporarily open for traffic. 3,000 bags of cement, 52 bundles of M8A1 matting, 18 bbls of RC-3, 32 barrels of MC-70, 2 - 3/4 ton dump trucks, an airmobile bucket loader, a case 450 dozer, cement mixer, personnel and necessary tools were airlifted to the site. After movement of supplies, the runway was closed to traffic and the old matting was removed. The repairs consisted of excavating to a depth of 9" and pouring sand cement. The cement will be covered with M8A1 matting. The second platoon was reinforced with one squad from the first platoon. An area of 3700 sq ft has been excavated and 39 cu yds of sand cement poured. Heavy monsoon rains and a high deadline rate on the equipment has greatly hindered progress. A total of 6834 man hours and 681 equipment hours were expended this period. The project is currently 30 per cent completed.

(b) Road Construction BMT, LSA, directive 205-5304-1-11 was assigned to C Company on 12 April 1969 and was expanded to include road work done in connection with the ASP Rehabilitation. The overall project consisted of the construction of .8 mile of all weather, two lane, sealed-rock surface road from the Ban Me Thuot ammunition supply point to the intersection of QL21 at Ban Me Thuot East Field. Work accomplished this period consisted of placing the rock surface on the road. The road was shaped, a three inch lift of 3"(-) rock was placed on the road and a tack coat of RC-3 was applied and again shot with RC-3. After compacting, the road was completed. The work was done by the first platoon of C Company assisted by the 131st LE Company. The entire road used 915 cu yds of 3"(-) rock, 540 cu yds of 3/4"(-) rock, 960 ft of 24" culvert and 580' of 18" culvert. The additional 11,951 board feet of lumber was used to construct headwalls on all culverts. A total of 2782 man hours and 791 equipment hours were expended this period and a total of 8443 man hours and 1818 equipment hours were used on the entire project.

(c) ASP Rehabilitation, directive 205-8385-0-11 is project carried over from last period. The project is essentially complete and work has been suspended on this project upon instruction from S-3 section. The curbing, which was lacking last period, has not been installed. Work completed this period consisted of hauling 146 cubic yards of 3"(-) rock to the roads within the ASP and to the entrance of each cell. A dozer was used to push up more dirt to increase the size of the berm and to form an EOD pit, which was requested as an additional scope not in the original plans. The drainage ditches around the cells were cleaned out and made deeper and the entire area was policed. A total effort of 665 man hours and 150 equipment hours was put forth this period.

(d) With the increased rain fall during the last period, it was not necessary to expend much effort toward Dust Control in the Ban Me Thuot

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East field area. Approximately 20,000 gallons of RC-3 was spread in the area to include the 129th, B-50, East field and the Battalion area. The penesprime distributor was used in support of other projects assigned to C Company, such as the taxiway at East field and the LSA Road.

(e) On 29 April 1969, C Company started construction of a taxiway at Ban Me Thuot East Field. Due to the necessity of keeping the Airfield open to traffic, an all out effort was made to complete the taxiway in the minimum possible time. The first step was to prepare a temporary taxiway for use during the construction of the main taxiway. This consisted of preparing earth base, compacting, grading and ditching and was completed in two days. The main taxiway consisted of shaping and preparing the subgrade, placement of a lift of 435 cu yds of 3"(-) rock, application of 3600 gallons of RC-3 diesel mix as a tack coat, placement of 175 cu yds of 3/4"(-) rock and compacting with a vibratory roller and a 13 wheel roller. The 700'x60' taxiway was completed on 2 May 1969. On 12-13 May 1969, a single surface seal was placed on the taxiway, using an additional 6,500 gallons of RC-3 and 60 cu yds of sand which was compacted with a 13 wheel roller. The project was completed with the expenditure of 792 man hours and 337 equipment hours.

(f) Open storage warehouse, directive 505-8355-0-11 was a project assigned to C Company during last period. The directive called for the construction of a 32'x48' open storage warehouse at the 70th Engineer Battalion's S-4 yard. The site was prepared for the building by hauling 150 cu yds of fill and uplifting the area. A 32'x48' concrete slab was poured by C Company personnel and the project was then transferred to D Company for completion. C Company used 475 man hours and 115 equipment hours.

(g) Road Maintenance, CCS Area, directive 205-5306-1-11 was assigned to C Company on 12 May 1969 and called for shaping of roadways and providing adequate drainage for the B-50 area. After an inspection of the area it was determined that the roadway around the barn needed widening from the existing 10' to 22'. Graders were employed to cut new ditches and widen the road. 375 cubic yards of laterite fill was hauled in to lift the road where needed and to provide a crown for the road. The culvert installation is to be by CCS personnel with advice from C Company personnel. 200 feet of 24" culvert was drawn by CCS personnel and assembled at their location, but none has been installed to date. Work was started on the project and to date 398 man hours and 248 equipment hours have been used.

(h) Construction of a living/fighting bunker, directive 505-8360-0-11 was assigned to C Company on 4 June 1969. The construction was at Camp Corryell for the 167th Signal Company. The third platoon was assigned the task of hauling in 15 cu yds of sand and 5 cu yds of gravel for the foundation. On 20 June 1969 they poured 368 sq ft of concrete. 23 June 1969 drew lumber and other materials for vertical construction. Footers and posts were erected on the 24th and caps and stringers were also placed on that day. 2"x6" lumber was used on the siding, which was placed on the 25th and 26th of June. T-17 Taxiway set, membrane was used for the roof and roofing felt was used for the sides for the bunker. The living-fighting bunker was

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completed on 7 July 1969. A total of 489 man hours were utilized from the 3rd platoon along with 102 man hours from the 167th signal company. Equipment hours totaled 67. Construction and material usage were in accordance with the provisions of 35th Engineer Group standard living/fighting bunkers.

(i) Helicopter Revetment Conversion, BMT, RVN, directive 291-5302-3-11 was assigned to C Company on 29 May 1969. The directed work was for the 155th Assault Helicopter Company at Camp Coryell, Ban Me Thuot, RVN. The project consisted of converting 5 each "L" shaped helicopter revetments to parallel type revetments. Work was started on 13 June 1969 by the third platoon and was terminated on 19 June 1969. One leg of the existing "L" shaped revetment was removed and a new revetment parallel to the remaining leg was constructed. The new revetment was constructed of M8A1 matting and long U-shaped pickets. The revetment was backfilled with laterite fill and covered with matting. The matting was tack welded to the pickets to secure it in place. Ten bundles of matting and 155 pickets were used in the construction. A total of 736 man hours and 102 equipment hours were utilized on the project.

(j) Parking Area, Transportation Command, directive 505-8389-0-11 was assigned to C Company on 14 June 1969 and calls for the preparation and stabilization of a parking area for use by the Ban Me Thuot East Transportation Command at the Ban Me Thuot LSA. The sub-base was prepared by hauling in 1200 cu yds of laterite fill to the area and spreading and compacting. A lift of 3"(-) rock was then placed on the area. 335 cu yds of 3"(-) rock has been hauled to the site and it is estimated that 250 cu yds of 3"(-) rock are needed to complete the stabilization. Two 24" culverts, each 44' long were installed to provide access to the area. 247 man hours and 86 equipment hours have been expended to date.

(k) With the increased rainfall and the approaching monsoon, it became necessary to maintain and upgrade the Access road connecting Camp Jerone with East field and QL21. This responsibility fell to C Company with support from 131st IE Company and Headquarters Company. Approximately 3.5 miles of roadway was maintained during this period. The drainage was improved by cutting ditches along the length of the roadway. Graders were used to keep the ditches clean and to maintain the crown on the road. 3"(-) rock was placed on the road where needed. A decision was made to widen the bridge at the water point and C Company undertook the project. The existing wing walls were removed from the bridge to allow the pouring of additional abutments and salvaged beams were moved to the site. The project was then transferred to D Company for completion. It is anticipated that continued effort will be needed to maintain this road to facilitate ready access to other work areas.

(l) Combat Support, Battalion AOR, directive 191-5301-1-11 was a project assigned once again to C Company. A request was received for a fire base clearing mission, this time for the 5/22 Artillery. The first platoon was assigned the mission and personnel were airlifted to the site, which was located 12 clicks southeast of Duc Lap on 10 July 1969. A fire base approximately 150 meters in diameter and an LZ of 30 meters in diameter were cleared. Approximately 150 trees were blown, using C-4 explosive, and bamboo

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and other undergrowth were cleared with hand tools. The mission was completed on 15 July 1969, and personnel returned to the base camp. Security was provided by one battalion of MIKE Strike Force. The total mission used 600 man hours.

D Company

(a) On 16 July 1969, D Company was alerted for a mission to support a unit from the 577th Engr Bn. with 25 cu yds of 3/4"(-) rock. The unit was located in the vicinity of Gia Nghia. The mission was successfully completed on 18 July 1969. On the same day, D Company was again alerted to deliver 50 cubic yards of sand to the 577th at Gia Nghia. The convoy departed on 19 July 1969, and the mission was completed 28 July 1969. The sand was delivered on 19 July 1969, but the convoy was unable to return by land because of a road closing. The equipment was airlifted out and the final personnel and equipment arrived back at Camp Jerome on 28 July 1969.

(b) On 27 July 1969, a ten man unit was lifted into an area 11 kilometers north of Duc Lap. Their mission was to clear an area approximately 200x300 yards. They blew stumps and approximately 300 trees ranging from 6 to 10 inches in diameter. This area will be turned into a fire base for the 5/22 Artillery. Their mission accomplished, they were lifted back to Ban Me Thuot on 31 July 1969.

131st Engr Co (LE)

(a) The quarry crusher section at Hot Rocks quarry continued improving the site and opening a new quarry. During the period approximately 27,000 cu yds of blast rock were produced. Approximately 25,000 cu yds of rock were issued to the crusher. The remainder was issued to various construction projects. The crusher produced 14,600 cu yds of 3"(-), 4300 cu yds of 3/4" aggregate and 2600 cu yds of 1/2"(-). Crusher operations during the whole period were hampered by breakdowns. Quarry operation was greatly improved by the arrival of two (2) MCA drills and two (2) 600 CFM compressors as replacement for badly worn equipment.

(b) A directive was received to design and construct a 1500 ft C-64 airstrip at this location. This project had a low priority requiring that it be done on an "as available" basis for equipment. Due to this fact, work was not completed on the project until 21 June 1969. Approximately 24,000 cubic yards of earth were moved in a cut and fill operation to achieve a level strip. After completion of earthfill and compaction, the surface was stabilized by shooting with MC-70 and peneprime (approximately 11,900 gallons). An expedient tetrahedral wind indicator was built using the design in TM 5-330. Overrun markings and azimuth indicators were painted on the strip. Following completion of the 1500 ft runway, it was discovered that a seal coat of MC-70 and peneprime, while providing a waterproof surface, was not suitable to provide a trafficable travelway. To remedy this, approximately 700 cubic yards of 3/4" aggregate were spread and compacted with the MCA self-propelled vibratory roller and then shot with 11,850 gallons of RC-3. This provided an adequate travelway.

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(c) On 27 June 1969, the 2/35 Inf moved into a base camp approximately 4 kilometers from this location. Cranes were provided to assist in off-loading heavy equipment. 290's were provided to level areas, dozers were provided to dig defensive positions, and an intrenching machine was used to dig defensive trenches around the perimeter. Dozers and bucket loaders were used to excavate living bunkers. Also, an intrenching machine was used to dig a defensive trench around another location for a separate company attached to the 2/35.

(3) Base Camp Construction

(a) Base Camp Security - A Company, 70th Engineer Battalion continued improving base camp security by installing thirty (30) flood lights around the perimeter. The lights were mounted on top of 4"x4"x20' posts. Two (2) knife rests were also constructed and installed at the front gate. Additional claymore mines were cemented into a permanent position and obstacles such as barb wire put in culvert drainage through the berm. An Officer's BOQ and NCO bunker (20'x30') were completed along with other compound construction. Due to build up of water, the Officer/NCO shower latrine was relocated. A new octagonal (4' sides) bulletin board was built along with two additional knife rests for the front gate. Two (2) 24" culverts were installed on the access road at the front gate to prevent additional rain during monsoon from washing the road away. Preparations for monsoon season were also undertaken by installing 18' of 16" culvert in various low points through the perimeter berm. To aid sanitary conditions behind the mess hall, a new concrete wash rack (10'x12'x3") was installed.

B Company

(a) B Company finished the SEA Huts of the LSA project during the last quarter. From 1 May 1969 through 10 May 1969, two squads of the first platoon finished ten (10) 16'x32' SEA Huts with wiring at East Field.

(b) Duc Lap Project - On 5 May 1969, one modified squad of the second platoon moved by convoy to Duc Lap and constructed a 20'x32' SEA Hut with concrete walls and floor, a latrine which is part of the 20'x32' building, a water tower with a navy cube, a three hole burn-out latrine and a septic tank. Work accomplished:

Three hole burn-out latrine 6 May - 7 May
13' water tower with navy cube 22 May - 23 May
Septic Tank 28 May - 31 May
SEA Hut 20'x40' completed with a latrine and a built in 10'x20' bunker
9 May - 19 Jun

(c) Assistance rendered to MACV and D Battery, 5/22 Artillery:

Advised MACV elements on pouring concrete for walk ways around TOC.
Advised and assisted D Battery 5/22 to pour 2 each 105 gun pads.
Constructed a hot and cold, one head outside shower for temporary use.
Bucket loader while not in use on the SEA Hut project dug a trench for defense around the compound.

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(d) We also did much work at Camp Jerome. B Company dug 300' of drainage ditches employing back-hoe and explosives. Erosion of soil at the TOC necessitated the use of sandbags to control the problem.

(e) B Company was assigned the mission of constructing the MCA maintenance club. It consisted of a 20'x32' concrete pad, posts and framing and siding material which came from the old EM Club flooring.

(f) Camp Jerome now has an EM/NCO club due to the efforts of B Company. The club required the pouring of two 16'x32' pads. The forms were prefabricated before placing. The siding came from the old NCO club flooring.

C Company

(a) Technical Assistance, SEA Hut Construction, 5/22 Artillery, CD 505-5306-1-11 and 505-5307-1-11 were projects assigned to C Company on 2 April 1969. The scope of the project is to provide technical assistance by providing advisory personnel to Headquarters Battery and Service Battery, 5/22 in the construction of 46 SEA Huts at the 5/22 Base camp. C Company has made an NCO available as needed to assist in construction. 28 SEA Huts are completed at this time, however, construction has been stopped and the date on which it will be resumed is unknown.

(b) MER Construction, 5/22 Artillery was a project assigned jointly to B and C Company on 4 March 1969. The scope of the project included the construction of a concrete slab for a mess hall, three showers, two latrines and a stabilized parking area. B Company completed the construction of concrete slab, showers and latrines last period. The 36,000 sq ft stabilized parking area was completed by C Company on 12 June 1969. This consisted of shaping the area and hauling and spreading of 306 cubic yards of 3" (-) rock. C Company expended 708 man hours and 391 equipment hours during this period and a total of 2058 man hours and 610 equipment hours were needed by both companies to complete the entire project.

(c) SEA Hut construction, LSA - BMT, CD 505-8305-0-11, change 1 was assigned to C Company on 21 May 1969 as an addition to the original directive, which was completed by B Company. The scope of the addition included the construction of a 16'x32' open storage warehouse for Class I supplies at the BMT-LSA at Ban Me Thuot East Field. The project was assigned to the first platoon of C Company and work was started on 11 June 1969. The structure consisted of an open sided wood frame structure utilizing three 32' trusses as a roof support. The flooring was of M8A1 matting that was already in place and the posts of the building were placed on concrete footers. Construction was in accordance with 70th Engineer Battalion Drawing 70-113-59. The project was completed on 23 June 1969 after the utilization of 398 man hours and 73 equipment hours.

(d) Base Camp Development, Camp Jerome, CD 505-5305-1-11 is the project carried over last period and continues to consume a large portion of the effort of C Company. The scope of the project was twice expanded during this period to include additional construction at S-4 and provide an adequate

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drainage and road network within Camp Jerome. This period, a total of eight living/fighting bunkers were completed in the company area, and one more is now under construction. The maintenance shop was completed at C Company motor pool. As an addition to the original directive a 16'x64' SEA Hut was directed for S-4. After C Company prepared the area and poured a 16'x64' concrete slab, the job was transferred to D Company for vertical construction. The task of providing an adequate drainage system in Camp Jerome was assigned to C Company on 24 May 1969 and was to be in accordance with the Base Camp Development plan Dwg #70-114-69. With equipment support from Headquarters and D Company and 131st Light Equipment Company, work has progressed well. 290's, graders and dozers have been used to provide drainage ditches along the roads in the area and along the berms to facilitate the run off of the huge volume of ground water. Road construction is in the process in Hqs Company area to provide ready access to the living/fighting bunker area and guard positions around the hill. In connection with drainage ditches, road upgrade and motor pool stabilization, a total of 694' of 24" culvert has been installed, 134' of 18" culvert installed, 1265 cubic yards of fill hauled and placed, and 345 cu yds of 3"(-) rock spread in the area. A total of 16,255 man hours and 1170 equipment hours were expended on the above mentioned projects and the maintenance of companies defensive positions and cantonment area. It is anticipated that a large commitment will be necessary in the future to continue directed projects in the area.

(e) Bunker Construction, Hqs and C Company, Camp Jerome CD 205-8400-0-11 was assigned to B Company on 8 July 1969 and calls for the construction of 6 each bunkers for Headquarters Company and 2 each for C Company. The bunkers, to be utilized by officers and NCO's of the battalion, are to be 20'x30' with a 5 foot high concrete wall. To date, two concrete floors have been poured and the walls for one bunker have been poured. Approximately 7 per cent of the entire project is now completed. A firm EDC has not been established.

(f) Upgrade MACV II CTZ District Advisors facilities, Hoa Binh, BMT, directive 48-239-01 Task #4 was assigned to C Company on 19 June 1969. Work was accomplished by the first platoon and was started on 5 July 1969. The construction consisted of a 2 head shower, 2 hole burn-out latrine, scullery pad and a water storage facility. The project was completed on 22 July 1969 and a total expenditure of 690 man hours and 69 equipment hours were used for the project.

D company

(a) Living/fighting bunkers - At the close of the previous quarter there were 5 living/fighting bunkers under construction for HHC. Those 6 were completed plus an additional 10 were constructed, also for HHC. In the D Company area, 7 living/fighting bunkers were constructed. As of the close of this period, all troops are in bunkers except NCO's and Officers. Facilities for these personnel are just now getting underway.

(b) All of the SEA Huts that were under construction at the close of the last reporting period are now completed. These include facilities for S-1, S-2, S-3, S-4, HHC day room, orderly room, and supply room, personnel and battalion aid station. The maintenance shed for HHC, which hadn't been sided or partitioned off, was completed.

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(c) Rehabilitation of medical bunker. This existing facility was improved by a concrete floor and entranceway. In addition, a ventilation chute was constructed.

(d) A 32'x48' open storage warehouse with high sheet metal roof was constructed for S-4 during this reporting period.

(e) A total of 660' of 24" culvert was assembled and placed in the D Company area during this quarter in preparation for the monsoon season. Ditches were cut throughout the company area and through the berm to carry water out of the compound. Either stone or sandbag headwalls were constructed at each culvert placement. 225 cu yds of 3"(-) rock was hauled in and spread on company streets for stabilization purposes.

(f) During this quarter D Company assumed the responsibility of control and coordination of all sand and rock convoys.

(g) Late this quarter D Company was assigned the project of placing light poles in the battalion area. To date 65 poles have been picked up from 131st LE Company, 34 holes have been dug, 5 poles have been placed and 7 sets of lights have been assembled for future placement on the poles.

(h) During the quarter a few small tasks have been undertaken. D Company improved HHC scullery pad by pouring an additional 4'x16' pad and constructing a roof and three walls around the pad. A small fire at S-4 caused a need for lumber to be restacked and cement to be salvaged. This job was done by D Company. 12 foot bridges, 6 each 3'x12' and 6 each 3'x6' were constructed and placed in various areas of Camp Jerome.

(i) During the last week of this period, work was begun on the 864th EBC Base Camp outside of Ban Me Thout. To date, all that has been accomplished in earth dozed away to uncover rock. Samples of the rock have been taken in two locations.

(j) A continuous effort was expended this quarter in maintaining and improving D Company's area of Camp Jerome's perimeter. Vegetation was cut within the wire barriers on a weekly basis. Dozers were used periodically to re-clear areas between the wire and berm and also from the wire out to the woodline. Additional claymores were added to the defense system, and approximately 200 meters of worn wire was replaced. Tin cans filled with small stones were attached to the wire to act as a warning system.

(4) LOC Maintenance and Upgrading

A Company

(a) A Company, 70th Engr Bn AOR extends from Bridge 21/24 to Bridge 21/31 on QL21. Within this area the company has been primarily concerned with: (1) potholing the highway, (2) construction of bypasses at the critical bridges, (3) preparing abutments for the construction of permanent

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bridges and (4) Assisting the 610th Engr Co (C)(S) in asphalt operations along our AOR.

(b) First platoon has worked on the bridge 21/29 realigning, the three (3) 72"x66" culvert tubes, and prefabbing bents for concrete headwalls. Basecourse was brought in from D Co, 864th Engr Bn (Const) site for backfill over the culverts. Second platoon assisted in pouring the upstream and downstream headwalls. Both headwalls are completed, and the project is ready for backfilling.

(c) The second platoon has built a bypass at bridge 21/31 and repaired the blown bridge span at bridge 21/27. All debris was removed for bridge 21/27 and new abutment retaining walls poured. The center footer was also cleared of all debris. Construction of Bridge 21/27 has stopped pending approval of plans for center support. Second platoon has also completed a bypass around bridge 21/31. Two (2) 60"x62" culverts and one (1) 72"x62" culvert were installed with an expedient headwall poured on upstream side. Work on the new bridge has begun by clearing all debris from blown abutment footers to determine if footers are reusable. Second platoon also assisted first platoon in finishing bridge 21/29 by helping to pour both concrete headwalls.

(d) Third platoon finished construction of Bridge 21/28.4. The 15'8" span was prefabbed in the company area and then installed at the job site. Five (5) 21" wide flanges were used for stringers with 10"x12" decking and 4"x12" treadway. Third platoon also poured the west abutment footer for bridge 21/30 and has begun excavating for the east abutment footer.

(e) potholing has been going on steadily for the past three (3) months with first platoon doing the majority of the work. Asphalt from the 610th Engr Co (C)(S) plant is utilized to backfill the potholes. The 610th Engr Co (C)(S) asphalt operation has been operating for the past three (3) months with A Company, 70th Engr Bn supplying men for road guards and rake and shovel crews. A Company, 70th Engr Bn also furnishes four (4) dump trucks daily for hauling asphalt to the paving site.

B Company

(a) B Company filled pot holes on QL21 using 3"(-) rock, RC-3 for sealer and hot mix to cap the holes. An air compressor was used to dig and compact.

(b) Bridge 32 - The site was prepared for abutment walls and wing walls. A recon was made upstream about 2 miles to locate an area to stop the flow of water. A likely spot was found, and 9 blocks of C-4 were used. The results were unsuccessful. Two ARVN platoons were utilized for security. 83' of 18" culvert at bridge site were constructed and emplaced to detour water from the work site. The near and far shore footers were poured.

(c) Bridge 36 - The old footers were removed and the site prepared for headwalls, wing walls, and pilings for footers.

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(14)

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(d) A 35'x20'x15' coffer dam was constructed. Foundations on both shores were prepared using 3"(-) rock and tamped. Piles were cut to desired length. Rebar and forms were placed for both footers. The west shore footer was poured on 30 June 1969, poured east footer on 7 July 1969. Rebar, forms, and bracing on both abutments and wing walls were emplaced. Poured east shore abutment and wingwall on 24 July 1969 and poured west shore abutment and wingwall on 25 July 1969. Forms were stripped on east and west shore and steel plates for emplacement of beams were prepared.

D company

(a) D Company performed pot-holing operations in their AOR of QL21. This sector is from 1Q816045 to PQ085064 and was covered twice. The first time, large holes were patched; and the second time, small holes were repaired. Hot asphalt mix from the 610th asphalt mix from the 610th asphalt plant near A Company was picked up each morning. While the mix was being picked up, a crew would cut the holes deeper and square them up. 3/4"(-) rock was placed in the holes, covered with RC-3, asphalt mix added up to road level, and sand spread over the top. Pot-holing operations were temporarily discontinued near the end of the quarter. At that time, the crew was commencing to work through the AOR the third time, this time concentrating efforts on the road shoulders.

(b) During the quarter, construction of the bridge yard at Camp Jerome was completed by the addition of deadmen to secure the retaining wall. Fill was hauled in to level the two tiers. Also during this period, an M4T6 bridge was delivered, unloaded, and stacked. Part of it was used as an emergency measure at QL21, B-31 but was soon brought back and restacked. A 27' erection board was added to the bridge set, it was also placed in the bridge yard. A bailey bridge was disassembled at QL21, B-34 and placed in the yard. Additional bailey parts were transferred from the Camp Jerome S-4 to the yard.

(c) Work accomplished at QL21, B-37 was as follows: A crane was utilized to remove debris when D Company blew the damaged pier. The pier footer was uncovered and keyed. Work was then halted due to the unavailability of necessary plans.

(d) The enemy blew part of the culvert by-pass at QL21, B-31. D Company constructed a temporary 45' M4T6 dry span. D Company placed 2, 60' sections of 72" culvert at a new bypass site constructed by A Company. When A Company completed the new bypass, D Company disassembled the M4T6 and returned it to the bridge yard.

(e) D Company assisted A Company in the construction of a 120' double-double bailey bridge at QL21, B-34. D Company also removed the existing 100' triple-single bailey and brought it to the bridge yard.

(f) During this period, D Company has constructed forms for an abutment at QL21, B-38. The abutment will be 48' long, 11' high and 30" thick. At the close of this quarter, the final bracing is being constructed in preparation for pouring the abutment.

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(g) QL21, B-38A consists of 3 - 80' sections of 72" culvert. concrete headwalls, wingwalls, and apron pads were constructed; and local laterite fill was used to fill around the culverts and headwalls. The fill was compacted, and 3"(-) rock was hauled in. As of the end of this period, all that is needed to complete the bridge is more fill and 3"(-) rock to bring the roadway up to grade.

131st Engr Co (LE)

(a) LOC Upgrade-QL21, coord, BQ527121 - BQ085064. (1 May 1969 - 31 July 1969) during the reporting period a considerable amount of upgrade work was accomplished. This work is being done in several phases. Phase one is the rescarifying, application of base course material (3"(-)), grading, compacting and shooting with a mixture of RC-3 and soilbinder. This has been done on approximately thirty (30) scarified sections from BQ525121 - BQ085064. The second phase was blade lay of asphalt. It was found by modifying a grader slightly, asphalt could be laid to provide a temporary seal coat and as a base course for asphalt work done with a paver. Blade lay work began at BQ525121 on scarified sections and has progressed to BQ157131 as of this date. Due to a shortage of dump trucks and the length of the haul, it was found that 290's could be effectively used to transport the asphalt. An even layer, spread by the pans, is crowned and rolled to provide an effective temporary road. The third phase was paving with a paving machine. Paving began at BQ521121 in the west lane. At the present time, paving has been completed to BQ40701652 and BQ39931652. Pile driving was completed on bridge 33 and Bridge 34.

(5) Training

(a) During the last quarter, the battalion replacement training program was expanded. A replacement now spends 3 days in the classroom. One week of field training in patrolling is given to 2 men from each company per week. The battalion trains 20 men in patrolling per month.

(b) The battalion also conducts mandatory training every Sunday morning for 2 - 3 hours.

e. Logistics

(1) The battalion gained some equipment this quarter; however, the shortage of equipment is still critical.

The shortages are;

<u>Nomenclature</u>	<u>Auth</u>	<u>On Hand</u>	<u>Short</u>
Distributor, Bituminous, tk mtd	1	9	1
Generator 3 KW AC	13	10	3
Generator 3 KW DC	2	0	2

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<u>Nomenclature</u>	<u>auth</u>	<u>on hand</u>	<u>short</u>
Generator 5 KW AC	2	0	2
Saw chain	12	3	9
Truck, 5 ton dump	55	43	12
Truck, fork lift	1	0	1
Tank and pump unit, liq disp tk mtd	6	00	6

(2) Tonnage and type of aircraft used during this quarter for supply and transportation of equipment are as follows;

<u>Aircraft</u>	<u>Tonnage</u>
UH-1D Huey	24 Tons
CH-54 Flying Crane	44 Tons
CH-46 Chinook	54 Tons
C7-A Caribou	210 Tons
C-130 Hercules	96 Tons

(3) During the period, the battalion operated three water points. A Company produced a total of 936,900 gallons; B Company produced 866,315 gallons; and the battalion water point produced 99,470 gallons during the quarter.

- f. Force Development: None
- g. Command Management: None
- h. Inspector General: None
- i. Information: None
- j. Civic Affairs

A Company - A Company, 70th Engr Bn along with assistance from D Company, 864th Engr Bn (Const) utilized two (2) D7-E dozers to excavate a lake bed for Ban Ho Jhoe village. The lake is located 100 meters south of the village (BQ561098). A natural stream was diverted to the lake bed by the use of the dozers. The lake is to be stocked with fish by the Vietnamese Government.

C Company - Support of ARVN Dependent Housing Program, directive 805-8357-0-11 was assigned to C Company on 20 May 1969 and is currently an open project, although no current effort is being expended. The scope of the project is to provide equipment support as needed to assist in the construction of dependent housing for the 23rd ARVN Division at Ban Ho Thmot. A D7-E

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Dozer and operation was provided on 4 days during this period to assist in land clearing at the site. Surveyors from the 70th Engineer Battalion S-3 have also been committed to assist in layout of the site. Since this support is on an as needed basis, no firm completion date can be offered.

131st Engr Co (LE) - During this period, the unit was involved in several civic action projects. Among these were digging of defensive and irrigation ditches at many small Buons located in the area. Also, dozers were provided, as available, to clear areas for relocation of villages and for fields of fire for defensive positions.

2. Section 2, Commanders Observations, Evaluations and Recommendations/ Lessons Learned

a. Personnel: None

b. Operations:

(1) Expedient Bypass over Blown Bridge:

(a) Observation - When using the blown spans of a bridge to support an expedient culvert bypass it is recommended to place pressure charges on the dropped ends of the span.

(b) Evaluation - Pressure charges placed on the fallen ends of the spans will assure positive settling of the dropped spans..

(c) Recommendation - Using pressure charges will assure the spans are settled and will prevent the spans from shifting when additional weight from the expedient culvert and backfill is placed on top of the spans.

(2) Expedient Wire Mesh:

(a) Observation - When pouring concrete on a slope such as the apron underneath a bridge abutment; short "U" shaped pickets and barbed wire can be just as effective as wire mesh when used properly.

(b) Evaluation - By setting up the barbed wire in a tangle foot design with the "U" shape of the picket facing uphill and the wire stretched tight, it can be used as a retaining force for the concrete and also provide added strength.

(c) Recommendation - The use of "U" shaped pickets and barbed wire in place of wire mesh is quickly and easily made and is sufficient to take the place of the wire mesh.

(3) Seepage into Footer Excavation:

(a) Observation - When preparing to pour a concrete soil-bearing type footer for a bridge abutment ground water seepage from a nearby stream can

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be a constant problem.

(b) Evaluation - The problem can be lessened by investigating downstream to find any obstructions which might be blocking the free flow of the stream and removal of these objects by blasting or dredging.

(c) Recommendation - Removing the obstructions from downstream often lowers the water level at the bridge site enough to reduce or eliminate the seepage thus preventing serious construction problems.

(4) Abutment Construction:

(a) Observation - There was a shortage of supply of 3/4" plywood necessary for forming headwalls at culvert site.

(b) Evaluation - If headwall forms are butted up against the culverts instead of forming around the culverts, a large amount of 3/4" plywood can be salvaged for similar operations.

(c) Recommendation - If 3/4" plywood is in short supply, the above method of construction is a good method of saving the material for reuse.

(5) Bailey Bridge Transportation

(a) Observation - A large number of 5-ton dumps are necessary to transport a bailey to the bridge site.

(b) Evaluation - One (1) 10-ton lowboy rig can transport as much bridge as four (4) 5-ton dumps. Forty-eight bridge panels can be hauled with one 10-ton rig.

(c) Recommendation - If it is necessary to haul a bridge and not enough 5-ton dumps are available, 10-ton rigs can be substituted with a savings in equipment hours with the only loss being maneuverability of the equipment.

(6) SEA Hut Roofing:

(a) Observation - Many SEA Huts constructed developed leaks in the roofs.

(b) Evaluation - Since ridge row tin is not available, this unit split a regular sheet of metal roofing in half and bent it length-wise down the ridge row. Leakage often occurred when this method was used. It was found that a layer of tar paper under the ridge row would solve the leakage problem.

(c) Recommendation - That the above method be used when standard ridge row roofing is not available.

(7) Leaking Oil:

(a) Observation - Oil leaked from hydraulic systems and transmissions on D7-E's. Prescribed oil is OE10.

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(b) Evaluation - It was found that by draining each system of OE10 and refilling with OE30, the leaking stopped.

(c) Recommendation - when D7-E's are used in a hot climate, OE30 be used in the hydraulic system and transmission.

(8) Loss of Oil pressure:

(a) Observation - Loss of oil pressure on 5-ton multifuels when idling.

(b) Evaluation - On several 5-ton multifuel trucks, low oil pressure was noticed when idling. When the oil pump was removed and checked, it was found that the pump drive gear was loose and could be repaired by tightening nut and replacing cotter pin.

(c) Recommendation - Recommend all oil pumps be checked for the above condition and repaired if possible before replacing oil pump.

(9) Leaking Engine Oil Cooler Element on Clark 290M:

(a) Observation - A Clark 290M was having problems with oil in the water.

(b) Evaluation - The above condition may be caused by a leaking oil cooler. A device may be fabricated to test the oil cooler. Fabricate 2 plates, 7½" square and two 19" bolts. Cut holes in plates to accommodate bolts. In one plate, cut a third hole to install a ½" brass air valve. Place oil cooler between two plates using a piece of inner tube as a gasket. Be sure to cut a hole for the air valve. Very little torque is required to tighten plates. Immerse oil cooler in water and apply air pressure. If the cooler is leaking, air bubbles will appear.

(c) Recommendation - Use of this device enables mechanics, organic to this unit, to check the oil cooler element, which can be replaced at this echelon of maintenance, before evacuating the piece of equipment to a higher echelon of maintenance when it is not necessary.

(10) Clamps Breaking on 2½ and 5-ton multifuel vehicles:

(a) Observation - It was found that the aluminum clamps which held the cold weather engine manifold heater to the engine block were breaking because of vibration.

(b) Evaluation - Replacing the broken clamps with banding material of ½" or ¾" width eliminates deadline of the piece of equipment for broken clamps.

(c) Recommendation - Recommend that broken clamps be replaced with steel banding material as they are broken to cut down on deadlines.

(11) 5-Ton Radiators:

(a) Observation - Under field conditions and rough roads, the engine fan will hit the radiator shroud because of the frame twisting. After a short period of time, the radiator has to be taken off for soldering causing deadline of the equipment.

(b) Evaluation - By cutting 5/8" off each blade on the fan, the fan no longer hits the shroud and there is no visible overheating. Measurements for cutting must be made from the center of the fan to the outside of the blade to insure that each blade is the same length when cut off, otherwise vibration problems will occur.

(c) Recommendation - When problems arise with fans hitting shrouds and causing radiator leakage, fan blades should be cut off as indicated above.

(12) Mirror Braces

(a) Observation - The West Coast mirror braces have one brace bolted to the cowl on the cab. The cowl is made of very light gauge material. Mirror vibration breaks the mount out of the cowl.

(b) To prevent breakage, disassemble the cowl mount and relocate the brace on the fender.

(c) Recommendation - Recommend all mirror braces which are presently located on the cowl of the cab be relocated to the fender to avoid breakage.

(13) Westinghouse Grader Exhaust Stacks:

(a) Observation - Because of the length of exhaust stacks on the Westinghouse 440H grader, the fumes bother the operator.

(b) Evaluation - This situation can be improved by extending the stack above the operators head while he is in a standing position. This can be done by welding a 5-ton multifuel stack extension to the muffler, pointing to the rear.

(c) Recommendation - If exhaust fumes hamper grader operators while they are working, this modification would improve the situation and enable the operator to perform his job in a more efficient manner.

(14) Breaking of Clark 290M Fenders:

(a) Observation - Due to vibration and the weight of the fender, breaks were occurring in the welded joint near the center or on the mounting plates on rear of fender.

(b) Evaluation - A brace can be fabricated from 3" flatbar, 18" long, and welded 12 inches up from the top of the angle iron mounting plate,

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(23)
(46) slanting down and welded to the rear of the fender. It must be welded on bottom as close as possible to wheel so that it won't interfere with the frame when it is twisting.

(c) recommendation - This will stop the fender from breaking on mounting pad and help steady fender so it won't break near the top of the pipe brace. When fender braces break, the whole fender assembly falls off and the scraper passes over it crushing it beyond repair.

(15) concrete vibrating;

(a) observation - During pouring it is often difficult to hand-rod or use an air compressor vibrator.

(b) evaluation - A pneumatic nail driver was used against the rebar cage and outside of forms.

(c) recommendation - Results were excellent. After form removal, no honeycombing was observed.

c. Training and Organization: None

d. Intelligence: None

e. Logistics: None

f. Other: None

FOR THE COMMANDER:

Incl
Organ. structure

STUART G. MC LAUGHLIN
1LT, CR
Adjutant

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EGA-CO (31 July 1969) 1st Ind

SUBJECT: Operational Report of 70th Engineer Battalion (C)(A) for period
Ending 31 July 1969, RCS, CSFOR-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 70th Engineer Battalion (C)(A) 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
COL, CE
Commanding

AVBC-CG (31 Jul 69) 2nd Ind

SUBJECT: Operational Report of the 70th Engineer Battalion (Combat) for
the Period Ending 31 July 1969, RCS CSFOR-65 (R1)

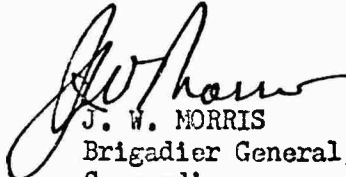
DA, HEADQUARTERS, 18TH ENGINEER BRIGADE, APO 96377 5 SEP 1969

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

1. This headquarters has reviewed the Operational Report - Lessons Learned for the 70th Engineer Battalion (Combat), 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, paragraphs b(1) and b(2). Critical 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 into these requirements. These procedures were recently discussed with a representative from USARV G-1, Personnel Management. Effective August 1969, USARV will automatically requisition lower grade personnel from statistics shown in our Monthly MOS Inventory Report. USARV has agreed to accept up-dating as casualties and medovacs occur. This new policy should improve our personnel picture in regard to lower grade replacements. Officer replacements are disbursed to the Groups equitably, based on current and projected shortages.


J. W. MORRIS
Brigadier General, USA
Commanding

CF:

1 - CO, 35th Engr Gp

1 - CO, 70th Engr Bn

AVHGC-DST (31 Jul 69) 3d Ind

SUBJECT: Operational Report of 70th Engineer Battalion (C)(A) for the Period
Ending 31 July 1969, RCS CSFOR-65 (R1)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 22 SEP 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 31 July 1969 from Headquarters, 70th Engineer Battalion (Combat) (Army).

2. Comments follow:

a. Reference item concerning "Leaking Oil", section II, page 18, paragraph b(7); nonconcur. LO 5-2410-214-12-1 and -2 states that OE-10 will be used in the transmission of the D7E. Leaking oil indicates worn or damaged seals and the tractor should be referred to maintenance for seal replacement. The use of a more viscous oil may temporarily stop leaks but internal damage could result from excessive strain on the transmission and the hydraulic system. No further action is required by this or higher headquarters.

b. Reference item concerning "Loss of Oil pressure", section II, page 19, paragraph b(8); concur. Organizational maintenance personnel are not authorized to perform maintenance on the engine oil pump. If pressure is excessively low, the unit should request maintenance assistance from the direct support unit. If the pump is found to be faulty, an EIR should be submitted. No further action is required by this or higher headquarters.

c. Reference item concerning "Clamps Breaking on 2½ and 5 ton Multifuel Vehicles", section II, page 19, paragraph b(10); concur. The replacement of broken clamps with banding material is a satisfactory field fix. The original clamp adjusting screw and bracket will provide a means to tighten the device. A new clamp should be on requisition before the field fix is authorized. The nature of the problem indicates that an EIR should be submitted. No further action is required by this or higher headquarters.

d. Reference item concerning "5 Ton Radiators", section II, page 20, paragraph b(11); nonconcur. The cooling system, in order to function properly, requires the fan to move a required volume of air. Shortening the fan blades reduces the volume of air and constitutes an unauthorized MWO. The problem of the fan blades striking the radiator shrouds when traveling over rough terrain indicates either faulty motor mounts or radiator mounting. Motor mounts, when loose or broken, will cause the engine to tilt allowing the fan to strike the radiator shroud. No further action is required by this or higher headquarters.

AVHGC-DST (31 Jul 69) 3d Ind

22 SEP 1969

SUBJECT: Operational Report of 70th Engineer Battalion (C)(A) for the Period
Ending 31 July 1969, RCS CSFOR-65 (R1)

e. Reference item concerning "Concrete Vibrating", section II, page 22,
paragraph 2b(15); concur. The method recommended should be used in addition
to standard vibration with the pneumatic vibrator and not as a substitute.

FOR THE COMMANDER:


RICHARD V. FULP
CPT, AGC
Assistant Adjutant General

Cy furn :
70th Engr Bn
18th Engr Bde

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GPOP-DT (31 Jul 69) 4th Ind
SUBJECT: Operational Report of HQ, 70th Engineer Battalion
(Combat) (Army) for the Period Ending 31 July 1969,
RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 14 OCT 69

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

This headquarters concurs in subject report as indorsed.

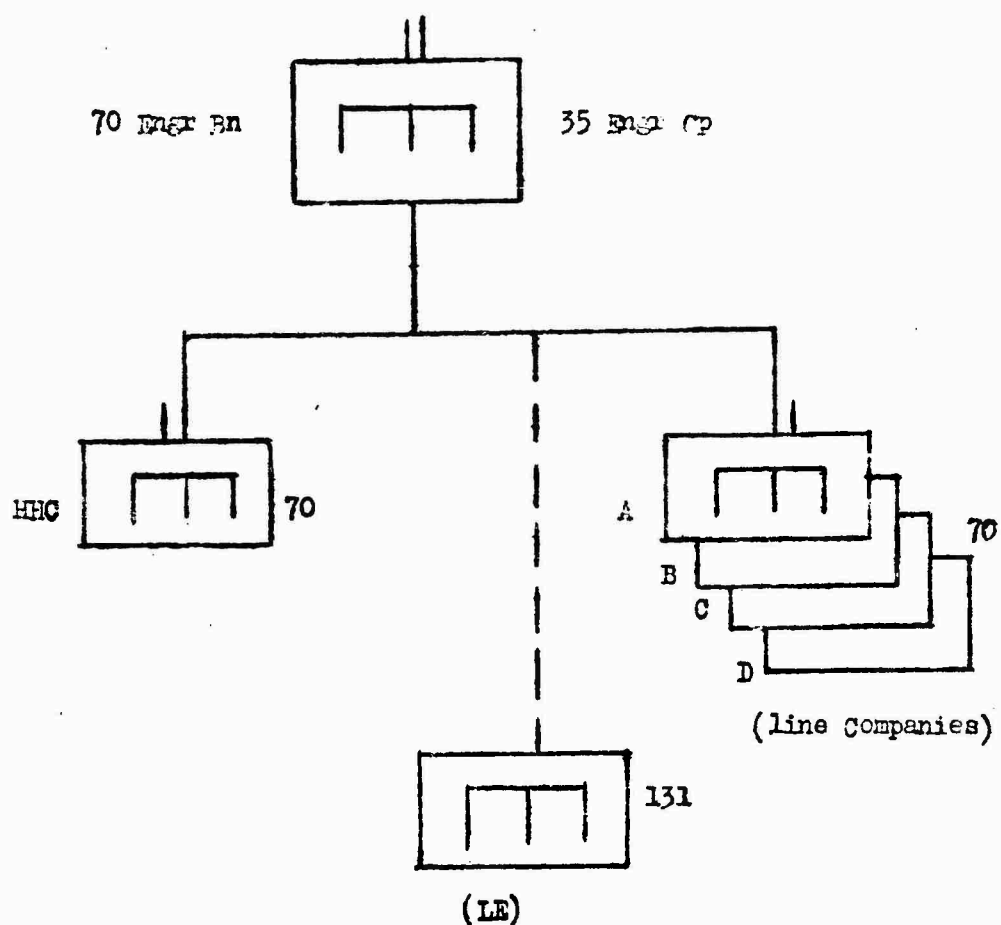
FOR THE COMMANDER IN CHIEF:



D. A. TUCKER
CPT. AGC
ASST AG

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