UNCLASSIFIED

AD NUMBER

AD859333

LIMITATION CHANGES

TO:
Approved for public release; distribution is unlimited.

FROM:
Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; 30 APR 1969. Other requests shall be referred to Assistant Chief of Staff for Force Development (Army), Attn: FOR-OT-RD, Washington, DC 20310.

AUTHORITY

AGO D/A ltr, 29 Apr 1980

THIS PAGE IS UNCLASSIFIED
THIS REPORT HAS BEEN DELIMITED
AND CLEARED FOR PUBLIC RELEASE
UNDER DOD DIRECTIVE 5200.20 AND
NO RESTRICTIONS ARE IMPOSED UPON
ITS USE AND DISCLOSURE.

DISTRIBUTION STATEMENT A
APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED.
SUBJECT: Operational Report - Lessons Learned, Headquarters, 809th Engineer Battalion, Period Ending 30 April 1969

SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation in accordance with paragraph 5b, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

ROBERT E. LYNCH
Colonel, AG
Acting The Adjutant General

DISTRIBUTION:
Commanding Generals
US Continental Army Command
US Army Combat Developments Command

Commandants
US Army War College
US Army Command and General Staff College
US Army Air Defense School
US Army Armor School
US Army Aviation School
US Army Engineer School
US Army Field Artillery School
US Army Infantry School
US Army Ordnance School
US Army Quartermaster School
US Army Transportation School

Copies furnished:
Office, Chief of Staff, US Army

UNCLASSIFIED REPORT
DISTRIBUTION NO FOREIGN WITHOUT APPROVAL OF ASSISTANT CHIEF OF STAFF FOR FORCE DEVELOPMENT (ARMY) ATTN FOR OT UT, WASHINGTON, D.C. 20310
SUBJECT: Operational Report and Lessons Learned of the 809th Engineer Battalion (Construction) for the Period Ending 30 April 1969.

1. Section 1. Operations: Significant Activities

   The 809th Engineer Battalion continued its primary mission of upgrading and paving Route 22 from Sakon Nakhon to Nakhon Phanom. The Battalion also continued to work on its secondary mission of upgrading Route 223 from Sakon Nakhon to That Phanan. Company A's well drilling efforts resulted in the completion of two wells at Camp Ruam Chit Chai. Two are now under construction at Battalion road camps. Company C resumed work on the Udorn Signal Site addition after great delay in real estate acquisition and logistical support. On 1 April, the 54th Engineer Company (CS) was attached to the 809th Engineer Battalion to operate the quarrying, crushing, and asphaltling operations. The 54th Engineer Company began construction of its area at Camp Ruam Chit Chai with completion expected early in May. The Battalion was also augmented during the period by the Earthmoving Platoon of the 561st Engineer Company. Arriving at B Company on 10 March, the 561st Platoon was temporarily housed in tent frame buildings. Porta-Kamp modular buildings, which arrived on 23 April, are now being erected by B Company for their own use as well as for the 561st. To relocate a six inch tactical pipeline, supplying water to the US Air Force at Nakhon Phanom, the 1st Platoon of the 697th Engineer Company (PL) was attached to Company B on 6 January and completed their mission on 10 April. The Platoon was then attached to Company C for the purpose of repairing and sealing four 10,000 gallon storage tanks at Udorn Air Force Base. The 23D Royal Thai Engineer Battalion is presently moving to the Northeast to support the 809th on the Route 223 Project. Completion of their base camp at Km 4+100 near Na Kae, is expected by mid June with full support to the mission in July.

   During this quarter, Headquarters Company continued its new construction responsibility at Ruam Chit Chai with the Repairs and Utilities Section. Primary emphasis has been on latrine and shower facilities for the 91st Engineer Company (DT), a 40' X 100' theatre, and completion of various buildings within the camp. Much of their effort has been hampered by the lack of lumber and reinforcing steel for concrete work.

   Company A completed the testing and break-in of the Barber-Greene KA 60, 120 TPH asphaltic concrete plant on Route 22 and started production and paving operations on 10 March. Responsibility for asphalt operations was transferred to the 54th Engineer Company (CS) on 9 April. Joint effort produced a total of 4.2 kilometers of asphaltic concrete placed during the reporting period. Company A provided pile driving support for Company C on the construction of one 20 meter two-span prestressed concrete bridge at Km 3+359 on Route 223. This support required 107 eqipment.
ment hours and 517 man-hours. During this period, approximately 2 kilometers of double bituminous surface treatment were placed on Route 223, providing a better traveled-way and dust free conditions. This effort will continue from Sakon Nakhon to Camp Ruam Chit Chai when sufficient quantities of crushed rock are available from the quarry.

At the beginning of the quarter, quarry-crushing activities consisted of a 400 X 100 meter quarry with three 75 TPH Eagle crushers. Drilling was accomplished with two Ingersoll-Rand track mounted drifter drills, blasting with M-1 explosives. One crusher unit had to be replaced due to age and excessive wear, and a pioneer three stage 225 TPH unit was installed in its place. Further development of the benches at the initial quarry site indicated that the material would not meet all specification requirements. As a result, quarry operations were relocated one mile distant to another site which had been used by a civilian contractor. This 60,000 M2 quarry with 9 meter faces appears to contain material of uniformly higher quality, and work is progressing to develop an efficient floor and bench system. The increased haul distance from the quarry face to crusher was overcome with the acquisition of ten 20 ton Payhauler dump trucks from excess property stocks of OICC in Sattahip.

The 101st Well Drilling Detachment, under the control of A Company, was deployed to Sahasakhan, near Kalasin for civic action project early in the quarter. After a total of 1200 man-hours and 19 equipment hours, the project was discontinued due to lack of cooperation and mischievous intervention on the part of area local nationals. The 182D Well Drilling Detachment started a well for Company B at Nakhon Phana on 16 April; the well is presently 40 feet deep. Company A's organic rotary rig completed two wells at Camp Ruam Chit Chai on 5 and 20 March with the pumps being installed on 11 and 29 April. The rig was relocated to Km 44+100, near Na Kae on Route 223, to support the 23D Royal Thai Engineer Battalion. This well is at a depth of 145 feet with a projected depth of over 200 feet. The effectiveness of the Battalion well drilling operations has been greatly reduced to lack of qualified replacement personnel.

Company B expended the majority of its efforts on upgrading Route 22, with its new area of responsibility being from Km 243+000 to Km 206+735. Since B Company has the largest area requiring considerably more effort due to extensive fills, the Earthmoving Platoon of the 561st Engineer Company was placed under B Company control on 10 March. After a move-in phase and initial borrow pit clearing, the combined effort enabled a two lift operation to start on 11 April. At the end of this reporting period Company B had placed 4.5 Km of subgrade, requiring 157,510 cubic meter of compacted laterite fill. This horizontal progress consumed 35,510 equipment hours, 53,415 military man-hours and 18,711 Local National man-hours. In addition, 1.1 kilometers of lower and upper base were prepared. This area of 1100 meters was also the first section paved in the project.

Vertical effort by Company B consisted mainly of power distribution, eight billets (16' X 32') to house the 561st platoon, security fence, construction pre-fab yard and latrine, requiring 13,535 military man-hours, 9,747 Local National man-hours and 2,068 equipment hours. Route 22 vertical effort was directed towards placement of corrugated pipe culverts and mass concrete headwalls. Several subgrade areas at bridge abutments were found to be failing. While this was not taken into account in construction planning, it necessitated the excavation and rebackfilling around 14 bridge abutments. Vertical construction efforts on Route 22 accounted for 6,781 man-hours, 8,956 Local National man-hours and 2,238 equipment hours. A six inch, 10 kilometer long tactical pipeline along the B Company section of the road had to be relocated 30 meters from center-
Company C did not relocate to Route 22 until 14 April due to the emphasis placed on the upgrading of 12 kilometers of Route 223 and the expansion of the Udorn Signal Site. The upgrading of Route 223 consisted of laterite subgrade, ditching and sloping, as well as constructing permanent drainage structures. Of the 12 kilometers, 98 percent of subgrade has been completed, leaving only minor ditching and sloping to be performed. C Company was assisted by Company E of the 23D RTA Engineer Battalion in the finish work of the one span bridge and laterite haul for subgrade work. E Company is presently working on a 1.5 x 1.8 meter concrete box culvert on Route 223. C Company continued operation of the prestressed concrete yard at Ruam Chit Chai with 26 ten meter deck girders being poured. In addition, the 1st construction platoon was primarily engaged in the Udorn expansion, completing 40 percent to date. The effort at Udorn was hampered several times due to delays in real estate procurement from Thai authorities and erratic logistical support. All major problems have been solved and the work is now progressing well with a tentative finish date of 15 May. To a limited extent the Company was also engaged in Ruam Chit Chai improvements, which consisted of completing a 38 foot high water tower for two 10,000 gallon tanks and a latrine-shower facility for the 57th Light Maintenance Company. Base camp construction required 3,995 military man-hours, 15,697 Local National man-hours and 519 equipment hours.

Company D continued to lead the Battalion on Route 22 construction. The unit fell 49 days behind schedule on box culvert construction, because cement and reinforcing steel were not available. However, their concerted effort during the period resulted in the completion of 11 out of the 14 box culverts in their area of responsibility, placing them five days ahead of schedule as of this date. In addition, placement of five pipe culverts and mass concrete headwalls completed all pipe culverts in their section. Of eleven existing bridges on the route to be raised and/or extended, Company D was assigned four. They have completed one bridge and are 50 percent complete on a second two span bridge. This work was delayed for 62 days at the beginning of the period due to the non-availability of 50 ton jacks required to raise the slabs. However, Company D is now only four days behind schedule (GPM) on bridge alterations. Vertical construction of Route 22 accounted for 13,796 military man-hours, 4,386 Local National man-hours and 3,230 equipment hours. During this same quarter D Company completed six kilometers of lateritic subgrade to include sloping and ditching for a total placement of 124,561 cubic meters of compacted material. To date they have completed approximately 11 kilometers of subgrade out of their assigned 29 kilometers. In addition to subgrade work the company placed 8 kilometers of lime stabilized lower base and 3.5 kilometers of which have been paved. Horizontal efforts during the quarter required 55,239 military man-hours, 41,347 Local National man-hours and 17,261 equipment hours.

Letter Order #73 dated 17 March 1969 attached the 54th Engineer Company (GS) to the 809th Engineer Battalion, effective 1 April 1969. The primary mission of the 54th will be to operate the quarrying-crushing operations, the asphalt plant and paving operations. At the present time a state of transition exists with the 54th gradually assuming responsibility for the above major operations. The company is critically short of mission essential equipment and personnel. Asphalt operators were transferred from Company A to the 54th on the 9th of April and the quarry
Operation is expected to be transferred by the 5th of May. Available personnel and equipment were transferred from 809th assets; at the end of the quarter the 54th had on hand 60% of authorized personnel and equipment. Additional equipment of civilian manufacture was obtained from OICC excess stocks in Sattahip. Two paving machines, two scoop loaders, three pneumatic tired rollers, and one air compressor comprised the list of major items released to the 54th. Asphalt practice strips were placed in the B Company area, followed by 1100 meters on Route 22 in front of the Nakhon Phanom Air Base in a joint effort with A Company. By 30 April, 3.1 kilometers of asphaltic concrete were placed in the B Company area. Total tonnage produced reached 2,635 tons, requiring 11,833 military man-hours and 1,253 equipment hours.

Throughout the quarter the 16th Engineer Company (DT) and the 91st Engineer Company (DT) continued in supporting the Battalion's primary missions. Due to excessive haul distances for fill material on Route 223 C Company could not efficiently utilize scrapers, thus they relied on the 91st Engineer Company for all subgrade fill. The 91st, augmented by 30 slat stock 5 ton dump trucks, performed admirably in their supporting role, hauling a total of 24,800 M$^3$ of subgrade fill for Route 223. In addition, the 91st provided 835 M$^3$ of base course aggregate for the double bituminous surface treatment on Route 223. In support of Route 223, 13,480 military man-hours, 11,742 Local National man-hours and 23,188 equipment hours were expended. In support of Route 22 the 91st Engineer Company hauled 700 M$^3$ of asphalt and 2,670 M$^3$ of upper base material requiring 5,630 military man-hours, 4,874 Local National man-hours and 9,738 equipment hours.

The 16th Engineer Company (DT) worked solely in support of B Company, providing haul capability for lower base, upper base and asphaltic concrete materials. The majority of their effort being directed toward lower base haul. Quarterly totals are as follows: 24,245 M$^3$ of lower base, 3,155 M$^3$ of upper base, 835 M$^3$ of asphalt. A total of 50,220 military man-hours and 13,392 equipment hours were spent in support of Route 22.
2. Section 2. Lessons Learned: Commanders Observations, Evaluations and Recommendations.

a. Personnel

(1) Personnel Assignment

(a) OBSERVATION: Personnel are being assigned in their Primary MOS whenever possible. When no vacancies exist, personnel are being assigned in their Secondary MOS or according to civilian acquired skills.

(b) EVALUATION: Because of bulk-fill replacements, many personnel are being forced to work in MOS's other than their primary. This unavoidable misplacement violates EM's enlisted contracts, causes the Battalion to waste many man hours on otherwise unnecessary OJT program, and reduces the overall effectiveness of the Battalion.

(c) RECOMMENDATION: That monthly requisitions, submitted by the Battalion, be filled on time with qualified personnel of the grade and MOS's required.

(2) Reassignment Instructions:

(a) OBSERVATION: Reassignment instructions for personnel returning to CONUS are not being received in sufficient time for adequate processing; in many cases, less than 30 days prior to DEROS.

(b) EVALUATION: Severe hardships on individuals are incurred due to the late receipt of these instructions; namely, in processing for shipment of effects.

(c) RECOMMENDATION: That reassignment instructions for the individual concerned be sent to the losing unit at least 45 to 60 days prior to DEROS.

(3) Personnel Shortages:

(a) OBSERVATION: At present, there are severe shortages in the E-6 grade in the 63C and 76Y series MOS's.

(b) EVALUATION: These shortages necessitate the utilization of E-4's and E-5's which at the best provides only minimal supervision.

(c) RECOMMENDATIONS: That requisitions submitted for the necessary NCO's be filled.

(4) Above comments are recurring from previous ORLL reports, due to the fact that the above mentioned difficulties have not been rectified.

b. Operations:

(1) Use of Soft Materials in Subgrade Construction
(a) OBSERVATION: Use of soft shale material in subgrade construction has been effective when large quantities of water are utilized to facilitate breakdown of materials during compaction.

(b) EVALUATION: The time to compact soft shale materials will be greatly decreased by using a large amount of water. If the materials are too dry, the large pieces of shale require a very long time to work into satisfactory compacted subgrade.

(c) RECOMMENDATION: When shales are to be used for subgrade construction, provision should be made for more than the normal amount of water application.

(2) Use of Hyster-type Rollers

(a) OBSERVATION: Job experience has shown Hyster-type rollers to be very effective in compaction of soft shale-like materials.

(b) EVALUATION: In areas where the soft shale-like material was used for subgrade construction, it was noted that conventional sheepfoot rollers were inadequate as a result of the size of the material. Large pieces of material had a tendency to hang-up the equipment. The Hyster-type equipment, on the other hand, tends to break up the material and does not bog down, due to its size and weight.

(c) RECOMMENDATION: Hyster-type rollers should be considered for placement into the military inventory for utilization on shale and similar materials.

(3) Culvert Excavation in Monsoon Climates

(a) OBSERVATION: Flash flooding in monsoon climates makes it imperative that excavations be opened for the absolute minimum amount of time.

(b) EVALUATION: When the construction of box culverts was analyzed, it was determined that 50% of the total construction time was devoted to making external wall forms and backfilling by hand. Use of precast form sections of culvert or construction of exterior walls using earth forms are two methods that have reduced the time that excavations remain vulnerable to the weather.

(c) RECOMMENDATION: The advantages of these construction techniques be included in presentations at the USAES, since extensive engineer effort is occurring in similar climates.

(4) Safety Procedure for Lower Base Preparation

(a) OBSERVATION: Personnel handling lime are exposed to the constant injurious effects of the substance. Burns and other skin irritations may result.

(b) EVALUATION: Hydrated lime is a caustic material that may cause varying degrees of burns or skin irritations. Personnel of fair complexions are more susceptible to these injuries.
(c) **RECOMMENDATION:** Since injuries are in direct relationship to exposed skin area, it is suggested that personnel who are engaged in lime stabilization work should observe the following precautions: (1) wear long sleeve clothing (2) blaze boots; and (3) use a respirator.

(5) **Slope Erosion**

(a) **OBSERVATION:** Compacted slopes in many areas where subgrade work has been completed have begun to show signs of mild erosion, although only very light Spring rains have been experienced to date on Route 22.

(b) **Evaluation:** Having determined that the slopes were properly compacted it must be assumed that signs of impending failure were due to lack of stabilization.

(c) **RECOMMENDATION:** That in future road construction projects an initial order be placed for grass seed and fertilizers at least six months prior to the initiation of the project. This would facilitate the stabilization of slopes at the time subgrade was completed, allaying the necessity to return and repair completed sections during monsoon rains.

(6) **Critical Path Method**

(a) **OBSERVATION:** The critical path method of construction scheduling has proven itself a very effective tool during the construction of Route 22. It is felt, however, that the costs incurred by programming the entire CPM on contract computer systems can be avoided.

(b) **EVALUATION:** Due to changes in production capabilities and initial inaccuracies in operation durations, completely new CPM's had to be initiated for the three line companies on Route 22. This was accomplished at the Battalion level and done in a very short period of time without the need for computer assistance. A saving of $900.00 per computer run is possible for the duration of the project.

(c) **RECOMMENDATION:** That construction scheduling by the critical path method be completely a Battalion level function, and that it be accomplished manually except in projects of extreme complexity.

(7) **Obsolescence of Engines in 40 Ton P&H (Harnischfeger) Cranes.**

(FSN 3810-54-2048)

(a) **OBSERVATION:** The 40 ton cranes assigned to A Company are a very critical item of equipment in several construction functions. They are the primary form of loading equipment in quarry operations when mounted with shovel front, and they are necessary for pile driving operations.

(b) **EVALUATION:** Almost insurmountable difficulties have been experienced in attempting to keep the cranes operational due to the fact that the original P&H engines with which they are equipped are obsolete and no longer in the Army Supply System. The replacement items are the Caterpillar 333 engine and conversion kit.
However, the Battalion has been unsuccessful in obtaining these engines (a few conversion kits are available).

(c) RECOMMENDATION: That all efforts be made to secure the Caterpillar Model 333 engine at the fourth echelon level to replace the obsolete P&H unit.

(d) **Engineer Direct Support Repair Parts Availability**

(a) OBSERVATION: With A Company decreasing the scope of construction support type activities (assumed by the 54th) and increasing maintenance support responsibilities, the lack of readily available repair parts is an obvious and significant problem.

(b) EVALUATION: The loss of unit capability to operate a direct support repair parts activity inhibits these maintenance activities. The sense of urgency required to meet the high workload and high priority repair support required by the construction units is difficult to establish and maintain with a non-organic unit now having repair parts support responsibility.

(c) RECOMMENDATION: That the 809th Engineer Battalion be re-authorized to maintain an engineer equipment Direct Support ASL in order that more complete and efficient service can be provided.

(e) **Aircraft Support**

(a) OBSERVATION: The Battalion received inadequate aircraft support during the reporting period. The aircraft support provided was primarily for visiting VIP's. The Battalion had exclusive use of an aircraft for only one week during the reporting period.

(b) EVALUATION: Current and anticipated missions of the 809th require deployment of the Battalion over distances of at least 100 Km. Further, the Battalion is located 400 Km from its command, logistical, administrative and medical support. Effective command and control of operations is extremely difficult without adequate aircraft support.

(c) RECOMMENDATION: That the aircraft authorized by TOE be assigned full time.

c. **Training:**

   None

d. **Intelligence:**

   None

c. **Logistics:**

   (1) **Equipment Shortages:**

   None
(a) OBSERVATION: Equipment shortages affecting mission support are six each 2½ ton fuel servicing trucks, six each 20 ton pile driver adapters, two each 10 ton cranes, two each 20 ton cranes, two each 600 CFM air compressors, and four each arc welding sets. Equipment capability has been augmented by OICC excess equipment.

(b) EVALUATION: Above shortages are long outstanding. The augmentation by OICC excess has been hampered due to the non-availability of high turnover repair parts.

(c) RECOMMENDATION: That the above shortages be filled and that the BPA request for repair parts for OICC excess equipment be approved.

(2) Construction Supply Shortages:

(a) OBSERVATION: This unit requisitioned its complete hydrated lime requirement for Route 22, Job Directive 68-13 ever five months ago to be supplied monthly over a period of ten months. Total requirement under this series of requisitions was 20,000 bags. Due to non-availability 7,900 bags were locally procured, the remaining requisitions were passed to 2nd Logistical Command, Okinawa, from there to CHUS. Three months later requisitions were challenged by depot at Auburn, Washington and reconfirmed. One month later a telephonic conversation by Group S-4 with Auburn representative up-graded priority of about 6000 bags to 02. To date no lime has been received.

(b) EVALUATION: It has taken the supply system over three months merely to accommodate itself to the fact that this amount of lime is needed in Thailand. Optimistically lime should be arriving within the next one-to-two months. However, lack of it has forced this unit to substitute cement for lime in subgrade stabilization and has now made cement critical.

(c) RECOMMENDATIONS: That the supply system be made attuned to the basic demands of construction requirements outside RVN. That the system itself accept its own priority codes for construction supplies, as set up in AR 725-50.

(3) Rental Equipment:

(a) OBSERVATION: This unit is presently renting one rotary tiller, four vibratory rollers, four farm tractors, and two Jersey spreader boxes.

(b) EVALUATION: Unique capabilities, as possessed by this rental equipment but not by Army equipment, are only needed during the present mission of the Battalion.

(c) RECOMMENDATION: That present policy continue; equipment should be rented if the respective situation is compatible with the current US. REAC Regulation 70-4.

(4) Maintenance Support:
(a) OBSERVATION: Vehicle tires are critical items of supply. The majority of tires received are recaps and are of varying quality. The most critical type for this unit is 11:00 x 20 (5 ton trucks). Tires are being recapped in-country and are a DX item at DSU's.

(b) EVALUATION: At present the quantity of tires being received is not adequate. Some of the recapped tires are of poor quality.

(c) RECOMMENDATION: That the supply of tires to this organization be improved, both in quantity and in quality.

16 Incl
1. Operation Area
2. 869th Mission
3. En Staff & Co 60's
4. OPE Organization
5. Materials Est. RT 22
6. Cons. Statistics
7. 16 Pictures
Incls 1 - 16 wd Hq, DA

M. J. KRUPINSKY
LTC, CE
Commanding
THG02I-0.P (30 Apr 69) 1st Ind
SUBJECT: Operational Report and Lessons Learned of the 809th Engineer
Battalion (Construction) for Period Ending 30 April 1969,
RCS CSFOR-65 (RI) WCH3 AA

DA, Headquarters, 44th Engineer Group (Construction), APO 96233, 21 May 69

THRU: Commanding General, United States Army Support, Thailand, ATTN:
THOR-IH, APO 96233

Commander in Chief, United States Army Pacific, ATTN: GPOP-DT
APO 96550

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

1. The Operational Report for the Period Ending 30 April 1969, RCS CSFOR-
65 (RI) WCH3 AA for the 809th Engineer Battalion (Construction) is forwarded
with comments as indicated.

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


   b. Operations:

      (1) Use of Soft Materials in Subgrade Construction:

         (a) Observation: Concur.

         (b) Evaluation: Concur.

         (c) Recommendation: Concur. Use of shale as a subgrade material
         should be avoided whenever possible.

      (2) Use of Hyster-Type Rollers: Concur.

      (3) Culvert Excavation in Monsoon Climates.

         (a) Observation: Concur.

         (b) Evaluation: Concur.

         (c) Recommendation: Concur. Box culvert construction time has been
         reduced by 100% as a result of this technique.

SUBJECT: Operational Report and Lessons Learned of the 609th Engineer Battalion (Construction) for Period Ending 30 April 1969, RCS CSFOR-65 (R) 1 NL3 AA

(5) Slope Erosion:
   (a) Observation: Concur.
   (b) Evaluation: Concur. In areas where the erosion was most severe, the slopes were excessively steep. The serious erosion was due to a combination of steep slopes and inadequate stabilization.
   (c) Recommendation: Concur. Also recommend that care be taken to minimize the slopes in areas subject to monsoon seasons.

(6) Critical Path Method:
   (a) Observation: Concur. The project scope and complexity dictates whether user of a computer is economical. Should a project involve a large number of separate operations, use of a computer is the only practical manner of employing CHI.
   (b) Evaluation: Concur. The great advantage of CHI is the graphic manner in which the user can detect changes or misestimates in project scheduling. Whether or not use of a computer is necessary for reprogramming depends on the complexity of the project.
   (c) Recommendations: Non Concur. This recommendation is only valid when the project involved has limited operations.

(7) Obsolescence of Engines in 40 Ton P&H Cranes:
   (a) Observation: Concur.
   (b) Evaluation: Concur.

   (c) Recommendation: Concur. This command, in conjunction with T.A., is in the process of purchasing Cat 333 engines.

(8) Engineer Direct Support Repair Parts Availability:
   (a) Observation: Non Concur. The situation has improved significantly since new policies have been initiated.
   (b) Evaluation: Non Concur. The LSH has a machine capability which, when perfected, will provide excellent support.
THCON-OP

SUBJECT: Operational Report and Lessons Learned of the 809th Engineer Battalion (Construction) for Period Ending 30 April 1969,
RCS CSFOR-65 (RI) NCWB AA

21 May 1969

(9) Aircraft Support:

(a) Observation: Concur.

(b) Evaluation: Concur. Inadequate air support has crippled both Battalion and Group operations. The wide dispersion of the Battalion and remoteness from its higher Headquarters makes extensive air capability essential.

(c) Recommendation: Concur.

c. Training: None.
d. Intelligence: None.
e. Logistics: Concur.

R. M. HATCH
CQG, C3
Commanding
THOP-MH (30 Apr 69) 2nd Ind 15 AUG 1969

SUBJECT: Operational Report and Lessons Learned of the 809th Engineer Battalion (Const) for the Period Ending 30 April 1969,
RCS CSFOR-65 (RI), WCN3 AA

DA, Headquarters, United States Army Support, Thailand, APO 96233 15 Aug 69

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

The Operational Report—Lessons Learned of the 809th Engineer Battalion (Const) has been reviewed and is forwarded with the following comments:

a. With reference to Section 2, para a(1), this headquarters requisitions enlisted replacements by appropriate MOS and grade. However, this command experiences approximately 40% short fall in valid requisitions. The end result of this 40% short fall is either to have a shortage of personnel or to assign bulk fill personnel. DA, in an effort to preclude critical shortages, assigns bulk fill personnel. This headquarters is presently diverting incoming personnel to the maximum extent practicable to all units of the 44th Engineer Group.

b. The observation at Section 2, para a(2) is valid. Late receipt of assignment instructions has been a continuing problem. This headquarters uses the following procedures in cases of late assignment instructions:

(1) A phone call is made to USARPAC on the 10th of the month prior to month of DEROS advising by name of personnel who do not have an assignment.

(2) DA is called 15 days prior to DEROS.

(3) Weekly thereafter, USARPAC is called.

c. Concur with comments in Section 2, para b(9) pertaining to aircraft support. Nonconcur with the recommendation that aircraft authorized by TOE be assigned on a full time basis. The 44th Engineer Group has a very low priority for aircraft, and it is doubtful that the three UH1H authorized will be filled at this time. Since 14 July 69, one UH1H from the 70th Aviation Detachment has been stationed at Camp Ruam Chit Chai on a TDY basis for use by the battalion, and additional
THQP-MH (30 Apr 69) 2nd Ind 15 AUG 1969

SUBJECT: Operational Report and Lessons Learned of the 809th Engineer Battalion (Const) for the Period Ending 30 April 1969,
RCS CSFOR-65 (RI), WCW3 AA

support is rendered when mission essential requirements or emergencies exist.

FOR THE COMMANDER:

[Signature]

P.A. LAPORTE Jr.
CPT AGC
Asst. Adjutant General
Operational Report - Lessons Learned, Hq, 809th Engineer Battalion

Experiences of unit engaged in counterinsurgency operations, 1 Feb 69 to 30 Apr 69.

CO, 809th Engineer Battalion