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AGO ltr 29 Apr 1980
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KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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SUBJECT: Operational Report of 364th Engineer Battalion (Construction) for Period ending 31 July 1970, RCS CSFOR-65 (R1)

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

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

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

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

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

   A. General

   The battalion's organization has been returned to that of a standard construction battalion in the last quarter (Incl 1). The 610th Engr Co

FOR OT UT
703227
Inclosure
EGACBC-3  
15 August 1970

SUBJECT: Operational Report of 864th Engineer Battalion (Construction) for Period Ending 31 July 1970, RCS CSFOR-65 (R1)

(CS), the 553rd Engr Gp (EB) and C/19th Engr Bn (Cbt) were detached from the battalion and assigned to other units. The battalion then started a unit consolidation in the Phan Thiet area. Delta Company moved from Khanh Duong to Whiskey Mountain. First Construction Platoon of Bravo Company moved from Dong Ba Thin to LZ Betty at Phan Thiet; the Battalion Headquarters moved from Nha Trang to Phan Thiet. The remainder of Bravo Company was attached to the 19th Engr Bn (Cbt) to supplement their LOC construction capability during the completion of QL-21. The battalion is continuing to put the major portion of its effort on construction of QL-1 from Phan Thiet to Ap Long Lam. Due to the recent unit moves and the enlarging of the Whiskey Mountain Compound to include Delta Company and a large portion of Headquarters staff the amount of effort expended on base construction has risen to approximately 25%. The operational support missions continue to consume approximately 5% of the battalions effort.

B. Commanders and Principal Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Dates</th>
<th>Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bn CO</td>
<td>1 May 70 - 31 Jul 70</td>
<td>LTC Jack W Martin</td>
</tr>
<tr>
<td>Bn XO</td>
<td>1 Feb 70 - 31 Jul 70</td>
<td>Maj Raymond G McDowall Jr.</td>
</tr>
<tr>
<td>S-1</td>
<td>1 May 70 - 31 Jul 70</td>
<td>Maj William T Cooper Jr.</td>
</tr>
<tr>
<td>S-2/3</td>
<td>1 May 70 - 31 Jul 70</td>
<td>Maj Richard E. Works</td>
</tr>
<tr>
<td>S-4</td>
<td>1 May 70 - 31 Jul 70</td>
<td>LTC John F McAuliffe</td>
</tr>
<tr>
<td>Bn Surgeon</td>
<td>1 Feb 70 - 31 Jul 70</td>
<td>Cpt Luther R Boone</td>
</tr>
<tr>
<td>Bn Comm Officer</td>
<td>1 May 70 - 15 Jun 70</td>
<td>Cpt James H Traxler</td>
</tr>
<tr>
<td>Task Force Whiskey CO</td>
<td>1 May 70 - 15 Jun 70</td>
<td>Maj William T Cooper Jr.</td>
</tr>
<tr>
<td>Task Force 21 CO</td>
<td>1 May 70 - 15 Jun 70</td>
<td>Maj Richard E. Works</td>
</tr>
<tr>
<td>CO, HHC</td>
<td>1 May 70 - 27 Jul 70</td>
<td>Cpt Robert B Pitzschler</td>
</tr>
<tr>
<td>CO Co A</td>
<td>1 May 70 - 31 Jul 70</td>
<td>Cpt James H Traxler</td>
</tr>
<tr>
<td>CO Co B</td>
<td>1 May 70 - 31 Jul 70</td>
<td>Cpt Peter L Johnson</td>
</tr>
<tr>
<td>CO Co C</td>
<td>1 May 70 - 15 Jul 70</td>
<td>Cpt Charles W Jones</td>
</tr>
<tr>
<td></td>
<td>15 Jul 70 - 31 Jul 70</td>
<td>Cpt Ruford C Murphree</td>
</tr>
<tr>
<td>CO Co D</td>
<td>1 May 70 - 5 Jun 70</td>
<td>Cpt Washburn</td>
</tr>
<tr>
<td></td>
<td>5 Jun 70 - 31 Jul 70</td>
<td>Cpt John W Quinn III</td>
</tr>
<tr>
<td>CO 610th Engr Co (CS)</td>
<td>1 May 70 - 15 Jun 70</td>
<td>Cpt Gregory C Peck</td>
</tr>
<tr>
<td></td>
<td>Lost company on 15 Jun to 19th Engr Bn</td>
<td></td>
</tr>
<tr>
<td>CO 73rd Engr Co (CS)</td>
<td>1 May 70 - 31 Jul 70</td>
<td>Capt Giuliano M Toneatto</td>
</tr>
<tr>
<td>CO 553rd Engr Co (EB)</td>
<td>1 May 70 - 15 Jun 70</td>
<td>Capt David H Holger</td>
</tr>
<tr>
<td></td>
<td>Lost company on 15 Jun to 19th Engr Bn</td>
<td></td>
</tr>
<tr>
<td>CO Co C 19th Engr Bn (CS)</td>
<td>1 May 70 - 15 Jun 70</td>
<td>Maj John H Cochran Jr.</td>
</tr>
<tr>
<td></td>
<td>Lost company on 15 June to 19th Engr Bn</td>
<td></td>
</tr>
</tbody>
</table>

C. Company Narratives

1. Company A

The primary mission of this unit was the production of various size
agregate for use on the LOG program. Over 13,000 cu of rock was quarried and crushed for base course and asphalt aggregate. The secondary mission was the providing of special equipment for LOG construction such as extra dozers, compaction equipment and other earthmoving equipment.

2. 1st Platoon Company B

The primary mission of this unit was base camp construction at the Dong Ba Thin Post. The unit moved to LZ Betty in Phan Thiet the beginning of June where they again picked up the mission of base camp construction assisting the battalion in the relocation to Phan Thiet.

3. Company C

The major effort of this unit during the reporting period has been the construction of National Highway QL-1 from Ap Long Lm to Phan Thiet. This work involved the installation of culverts, widening the existing roadway and placing subbase and base course in preparation for paving. Approximately 20% of the units effort was expended upon base camp construction to include such things as the construction of maintenance buildings, latrines, improvement of the mess hall and field fortifications. Operational support absorbed 5% of the mission effort working on an LST Ramp, and repairing of Phan Thiet Airfield.

4. Company D

This unit worked in two AOR's this period. The first half of the period the unit was in Khanh Duong constructing QL-21. Their primary mission was constructing bridges along with supporting construction by hauling base course and asphalt. They then moved to Whiskey Mountain, where they supported C Company on construction of QL-1, and assumed base course construction.

5. 73rd Engr Co (CS)

The primary mission of the unit was the production and placement of asphalt on QL-1. Simultaneously a soils stabilisation is being setup at the Whiskey Mountain Industrial complex. Also equipment support is being given to A Company for quarry operations.

II. Lessons Learned

A. Personal

1. Unit Strength

   a. Observation: An analysis of gains and losses of personnel in the battalion shows that gains totaled 228 and losses 266. This resulted in a net loss of 38.

b. Evaluation: A true evaluation of the figures cannot be made, as they include gains and losses in units which are no longer under the operational control of this headquarters. Although this was an overall net loss of 38 personnel, the battalion's assigned strength vs authorized strength at the end of the period was 807 vs 758.

c. Recommendations: None.

B. Operations

1. Quarry Drainage:
   a. Observation: During development of the quarry, continuous running springs were found as we developed faces and benches.
   b. Evaluation: This can lead to difficulty in crushing operations if the soil that is mixed with the blast rock becomes saturated.
   c. Recommendation: If the last row of holes on the bench parallel to the toe of the face are drilled deeper and loaded heavy at the bottom, a ditch is left after each blast which will direct the water along the toe of the face and then out at the side of the quarry floor.

2. Cutting edges for Hough 6 cu yd loader Model H120C:
   a. Observation: Standard cutting edges for the loader were unavailable through the supply system.
   b. Evaluation: An acceptable substitute was needed to prevent damage to the 6 yd bucket of the loader.
   c. Recommendation: If cutting edges are not available for the Hough H120C, the cutting edge for a Caterpillar D-7E dozer makes an acceptable substitute. The D-7E cutting edge is cut to fit the sides and bottom of the 6 cu yd bucket and then welded in place. If the bucket is worn, care must be taken to ensure that the back of the new cutting edge is flush with the bottom of the bucket and then using an arc welder the area between the bucket and the cutting edge must be filled with weld. These new cutting edges have been in use for over a month with this unit and have been completely satisfactory for loading blast rock.

3. Road Construction During Monsoons.
   a. Observation: Rice paddies are flooded and equipment can't be supported on the paddies when widening existing roadways.
   b. Evaluation: Firm bearing is necessary to operate track and rubber tired equipment.

(4)

4. Changing Tires on the 290m.

a. Observation: When the air compressor on the 290 tractor is used for pumping up the tire difficulty can result in getting a good seal.

b. Evaluations: A larger CPM air compressor should be used.

c. Recommendations: A 250 CPM or 600 CPM air compressor can be used. The plug is removed where sodium chloride is inserted for ballast. The 250 CPM or 600 CPM compressor is connected to the opening and the tire and rim are sealed due to the higher pressure.

5. Expedient Road Surface

a. Observation: Track vehicles have been tearing up bypasses due to the amount of turning required.

b. Evaluation: A method is needed to stabilize the road surface to prevent track vehicles from tearing up road surface.

c. Recommendation: Use salvaged sections of railway ties and rails and lie them upside down in roadway. Fillin between the ties with small aggregate or sand. This forms a corduroy road which won't be quickly torn up by heavy track vehicles.

D. Intelligence

1. Security of Live-In/Fight-In Bunkers.

a. Observation: Standard construction of live-in/fight-in bunkers give excellent protection from outside attack by enemy ground forces but are somewhat susceptible to attack from the rear by sappers.

b. Evaluation: A method of protecting the rear of the bunkers from sappers was needed.

c. Recommendation: To further protect the bunkers in case of sappers penetrating the wire and making their way into the compound, horseshoe shaped emplacements have been constructed at the rear corners of the live-in/ fight-in bunkers. In case of attack, one man goes to each of the two positions. This gives them an excellent view of the rear of the
bunker and a well protected position to defend the rear from sappers. The positions can be easily constructed with a single row of drums filled with earth and firing ports built with sandbags.

E. Logistics: None.

F. Organizational: None.

G. Other: None.

PHILLIP D. SANGLE
LTC GE
Commanding
SUBJECT: Operational Report - Lessons Learned, 664th Engineer Battalion (Construction), Period Ending 31 July 1970, RCS CSFB-64 (R1).

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

This Headquarters has reviewed the Operational Report - Lessons Learned for the quarterly period ending 31 July 1970 from the 664th Engineer Battalion (Construction) and concurs with the comments and observations of the commander.

[Signature]

COMMANDING
AVBC-CG (31 July 1970) 2nd Ind

SUBJECT: Operational Report - Lessons Learned, 864th Engineer Battalion (Construction), Period Ending 31 July 1970, RCS CSFOR-65 (R2)

DA, HEADQUARTERS, 18TH ENGINEER BRIGADE, APO 96377 18 SEP 1970

TO: Commanding General, US Army Vietnam, ATTN: AVBGC-DST, APO 96375

1. This headquarters has reviewed the Operational Report - Lessons Learned for the 864th Engineer Battalion (Construction), as indorsed by the 35th Engineer Group (Construction). The report is considered to be an accurate 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.

[Signature]

C. SCHRADER
Brigadier General, USA
Commanding
AVCC-420 (31 Jul 70) 3rd Ind

SUBJECT: Operational Reports - Lessons Learned for 864th Engineer Battalion (Construction), for the Period Ending 31 July 1970, RG3 GSFOR-65 (R2)

DA, HQ, US Army Engineer Command Vietnam (Prov), APO 96491

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

Subject report is under review in this Headquarters. Comments for inclusion in the Headquarters, USAVN indorsement to CINCUSARPAC will be forwarded to your Headquarters by separate cover.

FOR THE COMMANDER:

ROBERT E. SHEA
CPT, AG
Assistant Adjutant
AVHD-DO (15 Aug 70) 4th Ind

SUBJECT: Operational Report of 864th Engineer Battalion (Construction) for Period ending 31 July 1970, RCS CPFOR-65 (R1)

Headquarters, United States Army Vietnam, APO San Francisco 96375 14 OCT 1970

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

This Headquarters has reviewed the Operational Report—Lessons Learned for the quarterly period ending 31 July 1970 from Headquarters, 864th Engineer Battalion (Construction) and comments of indorsing headquarters.

FOR THE COMMANDER:

[Signature]

R. S. THOMPSON
CPT, AGC
Assistant Adjutant General

Cy furr:
USAECV(P)
864th Engr Bn

10
SUBJECT: Operational Report-Lessons Learned, HQ 864th Engineer Battalion (Construction), for the Period Ending 31 July 1970, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558 2NOV 1970

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:

[Signature]

G. R. McLAUGHLIN
COL, AGC
Adjutant General
ORGANIZATIONAL STRUCTURE 864TH ENG BN (CONST)

CONSTRUCTION

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RECON SUPPORT

Inclosure #1
Operational Report - Lessons Learned, HQ, 864th Engineer Battalion

Experiences of unit engaged in counterinsurgency operations 1 May to 31 July 70.

CO, 864th Engineer Battalion

15 August 1970

N/A

N/A