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ago ltr, 29 apr 1980
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5 April 1972

IN REPLY REFER TO
DAAG-PAF-A(M) (24 Mar 72)  DAFD-OTT

SUBJECT: Operational Reports - Lessons Learned, Hqs 27th Engr Bn, 93rd Engr Bn, 69th Engr Bn, Period Ending 31 October 1971

SEE DISTRIBUTION

1. Section 2 of reports, subject as above, are forwarded for review and evaluation in accordance with para 4b, AR 525-15.

2. The information contained in these reports is provided to insure that lessons learned during current operations are used to the benefit of future operations and may be adapted for use in developing training material.

3. Information of actions initiated as a result of your evaluation should be forwarded to the Assistant Chief of Staff for Force Development, ATTN: DAFD-OTT, within 90 days of receipt of this letter.

4. As Section 1 of subject reports are not pertinent to the Lessons Learned program, they have been omitted.

BY ORDER OF THE SECRETARY OF THE ARMY:

VERNE L. BOWERS
Major General, USA
The Adjutant General

3 Incl
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2. DAFD-OTT 712005
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   US Army Mobility Equipment Research & Development Center
2. Lessons Learned: Commanders Observations, Evaluations and Recommendations

a. Personnel: None

b. Intelligence: None

c. Operations:

1) SUBJECT: Timber Bridge On Route 547.

(a) Observation: Long enough piles could not be obtained to raise the bridge above the high water point.

(b) Evaluation: In order to provide an all weather bridge, some method of extending the bridge substructure must be found.

(c) Recommendation: By using pre-fabricated bents made to fit each set of piles. It is possible to raise the superstructure of the bridge above the high water level. These bents are attached to the piles with drift pins and scabbing. The use of 3/4" cable for transverse bracing added extra stability to the resulting structure.

(d) Command Action: This method has been added to the unit SOP on timber bridge construction.

2) SUBJECT: Construction Of Powder and Projectile Bunkers for 8" x 175M Guns.

(a) Observation: When the large guns fired directly over the bunkers, the roof was torn loose by the blast.

(b) Evaluation: In order to provide adequate protection for powder and projectiles, some method of securing the bunker roof, must be found.

(c) Recommendation: By replacing 60 D nails with 18" drift pins and 10" spikes, a solid roof was achieved. This roof will withstand the muzzle blast of an 8" or 175M gun fired directly over the bunker.

(d) Command Action: This method of securing bunker roofs was placed in the unit SOP.

3) SUBJECT: Drainage Of 8" and 175M Gun Pads.

(a) Observation: The spades on the large guns were destroying the drainage systems on the gun pads.

(b) Evaluation: Some method of protecting the drainage system must be found to provide proper drainage for the gun pads.

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(c) Recommendation: Placing blast rock and crushed rock around the drainage port, will give the spade a solid footing while protecting the drainage port.

(d) Command Action: This recommendation was placed in the unit SOP on construction of gun pads.

(4) SUBJECT: Filling Sandbags For FSB Serge.

(a) Observation: When filling sandbags by hand, the process takes too long and requires too much manpower.

(b) Evaluation: A better method of filling sandbags must be found, in order to cut the fill time and release more men for other projects.

(c) Recommendation: By using a ditching machine (Model 434C) it is possible to reduce the work force to three people and increase production. One man runs the machine while two people catch the fill from the conveyor in sandbags. Using this machine, three personnel can fill more sandbags than a ten man crew using shovels.

(d) Command Action: When a large number of sandbags are needed and the time limit is short, this method is employed.

(5) SUBJECT: Redecking 8” and 179M Gun Pads.

(a) Observation: The large guns were pulling the decking loose from the substructure, causing uneven wear and frequent replacement of decking.

(b) Evaluation: To prolong the life of the decking, some method of securing the decking to the substructure must be found.

(c) Recommendation: The 60 D nails were replaced by 10” spikes, resulting in a longer life span for the decking.

(d) Command Action: This recommendation was placed in the unit SOP on gun pad construction.

(6) SUBJECT: Asphalt Application.

(a) Observation: The upgrading of Route 547 required the spreading of asphalt (MC 250 and MC 800) to provide a seal for the road.

(b) Evaluation: Since an aggregate spreader proved to be unworkable, road graders might be used to spread the aggregate on top of the asphalt. However, a problem would be that asphalt would stick to the grader tires.

(c) Recommendation: A heavy coat of water could be applied immediately prior to the shooting of the asphalt. This water application coats the grader tires and helps prevent the asphalt from sticking to the tires and thus prevents chuckholes and provides a more uniform asphalt layer on road.
SUBJECT: Operational Report - Lessons Learned, 27 BBC, Period Ending (1 May 71-30 Oct 71)

(d) Command Action: This method of asphalt application was placed in the unit SOP for road construction.

  d. Organization: None
  e. Training: None
  f. Logistics: None
  g. Communications: None
  h. Material: None
  i. Other: None

RAYBURN L. WILLIAMSON
LTC, GE
COMMANDING

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2 - USMP, ATTN: GPOP-OIT, APO 96585
3 - CG, USAREC ATTN: AVHDO-DC, APO 96373
3 - CG, MG, ATTN: AVCC-MD, APO 96491
4 - CO, 45th Engr Gp (Const), ATTN: EGD-3, APO 96317
18 - S-3, 27th Engr Bn (C), APO 96303
SUBJECT: Operational Report - Lessons Learned, 27th Engineer Battalion (Combat), APO 96308.

HEADQUARTERS, 45TH ENGINEER GROUP (CONSTRUCTION), APO 96317

TO: Headquarters, Department of the Army (DADFZA), Washington DC, 20310

The significant activities and lessons learned have been reviewed and are an adequate reflection of the units operations during this period.

1. Reference item concerning, "Timber bridge on Route 547," page 13 para C(3). Concur. No action by USARPAC or DA is recommended.

2. Reference item concerning, "Construction of power and projectile bunkers for 8 inch and 175mm guns," page 13 para C. Concur. No action by USARPAC or DA is recommended.

3. Reference item concerning, "Drainage of 8 inch and 175mm gun pads," page 13 para C(3). Concur. No action by USARPAC or DA is recommended.

4. Reference item concerning, "Filling sand bags for FSB Sarge," Concur. No action by USARPAC or DA is recommended.

5. Reference item concerning, "Construction of powder and projectile bunkers for 8 inch and 175mm guns," page 13 para C. Concur. No action by USARPAC or DA is recommended.

6. Reference item concerning, "Drainage of 8 inch and 175mm gun pads," page 14 para C(5). Concur. No action by USARPAC or DA is recommended.

7. Reference item concerning, "Asphalt application," page 14, para C(5). Concur. No action by USARPAC or DA is recommended.

For the Commander

THOMAS A. WHITSETT
S&I, CE
Assistant, Adjutant
TO: Commanding General, U.S. Army Vietnam, ATTN: AVHDO-DO, APO San Francisco 96375

1. The significant activities and lessons learned have been reviewed and are an adequate reflection of the unit’s operation during this period.

2. Reference item concerning "Timber Bridge on Route 547", page 13, paragraph 2c(1). Concur. Subject matter is adequately covered in TM 5-312; see index, subjects "Bents" and "Bracing". TM 5-312 recommends wire-rope bracing with turnbuckles for underwater construction. The minimum size of all bracing material is 2" X 10" for pile bents and piers. No action by USARPAC or DA is recommended.

3. Reference item concerning "Construction of Powder and Projectile Bunkers for 8" and 175mm Guns", page 13, paragraph 2c(2). Concur. Drift bolts are used only for shear connections; they are not designed to be placed in tension. Bolts and lag screws should be considered. No action by USARPAC or DA is recommended.

4. Reference item concerning "Filling Sand Bags for Fire Support Base Sarge", page 14, paragraph 2c(4). Concur. Use of a ditching machine to fill sand bags is a good expedient procedure in a combat situation. However, using this low density, specialized piece of equipment with its high maintenance requirements for this task may leave the machine inoperative. In normal operations equipment with a greater density should be considered for support in a sand bag filling operation. As an example, using a dozer, crane or truck to feed a multi-discharge hopper. No action by USARPAC or DA is recommended.

FOR THE COMMANDER:

D.Y. Pyles
CPT, AGC
Assistant Adjutant General

CF:
27th Engineer Battalion
45th Engineer Group
TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD, APO 96558

This Headquarters has reviewed the Operational Report-Lessons Learned for the period ending 30 October 1971 from Headquarters, 27th Engineer Battalion (Combat) and concurs with comments of indorsing headquarters.

FOR THE COMMANDER:

[Signature]

T. L. CHILDESS
CPT AGC
ASSISTANT ADJUTANT GENERAL

Cy furn:
USAENGCOMD-V
27th Engr Bn
SUBJECT: Operational Report—Lessons Learned, HQ 27th Engr Bn (Cbt), for Period Ending 30 October 1971, RCS CSFOR-65 (R3)

HQ, US Army, Pacific, APO San Francisco 96558 20 JAN 1972

TO: HQ DA (DAFD-ZA), WASH DC 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

[Signature]

L.M. OZAKI
CPT, AGC
Asst AG
SECTION II: Lessons Learned: Commanders' Observations, Evaluation, and Recommendations

a. Personnel:

(1) Critical MOS's

(a) Observation: During May and June the 93d Engineer Battalion (Const) was under authorized levels on critical MOS's.

(b) Evaluation: During this period most replacements were heavy-duty equipment operator personnel.

(c) Recommendation: During periods just prior to stand-down when engineer units are still performing normal missions, attempts should be made to send replacements in relation to their requirements.

b. Intelligence: None

c. Operations:

(1) Starting a road through a rice paddy.

(a) Observation: When cutting a road through a rice paddy, it was very difficult to stabilise the subgrade clay.

(b) Evaluation: The road bed must be stabilised enough to support compaction equipment to stabilise the subbase.
SUBJECT: Operational Report - Lessons Learned of 93d Engineer Battalion (Construction) for the period 1 May 1971 to 31 July 1971, ADS-65 (G3)

(c) Recommendation: Build a berm on each side of the roadway along the construction limit to keep out water from tidal effects. As soon as possible, get a dozer on the roadway to strip and grub the area. If possible, try clay-line stabilization. In a wet area, it may not be possible to obtain more than 75 or 80% compaction. However, on the next lift, 95% compaction is readily achieved. If it is to wet to use clay-line stabilization, then sand should be hauled in after the bulk of the water has been removed. The sand blanket has to be enveloped by clay or clay-line to confine the sand.

(2) Use of poorly graded base rock

(a) Observation: The base rock being used to widen the shoulders on LTL-27 was poorly-graded. It was very difficult to maintain OMC and compaction. Durability to traffic after being treated with an asphaltic product is poor.

(b) Evaluation: The base rock was defined as 1/2"(-) and close examination showed that this material was composed of a large number of fines with little gradation up to the 1/2" particle size. The fines were primarily decomposed granite.

(c) Recommendation: The addition of moisture once any compaction has taken place is practically useless, careful addition of moisture must take place while the rock is in its uncompact state. Compacting the rock in successive lifts is helpful but may be precluded by the fact that the lifts are only 8 to 10 inches in depth, and the width of the trench only two feet in some cases. Surface asphaltic paving must be done immediately to preclude water from entering the material.

d. Organization: None

Training: None

Logistics: None

Communication: None

History: None

i. Other (Stand-down): See after-action report attached as Indisemr 4.

Robert Whitaker
CPT, CL
Acting Commander

FOR OFFICIAL USE ONLY
SUBJECT: Operational Report - Lessons Learned of 93D Engineer Battalion for the period 1 May 1971 to 31 July 1971.

The original copy of the Operational Report - Lessons Learned of the 93D Engineer Battalion (Const) for the period 01 May 1971 to 31 July 1971 is forwarded for your information.

FOR THE COMMANDER:

ROBERT D. CHONTOS
CPT, CE
Adjutant
AVCC-MO (31Jul71) 2nd Ind
SUBJECT: Operational Report - Lessons Learned, 93rd Engineer Battalion
(Genstr), for the period ending 31 July 1971, RCS GSFOH-65 (A3)

TO: Commanding General, US Army Vietnam, ATTN: AVBCO-DO, APO 96375

1. The significant activities and lessons learned have been reviewed
and are an adequate reflection of the unit's operations during this period.

2. Reference Section II - Lessons Learned: Ad 525-15, dated 20 Nov 70,
   requires a subparagraph (d), entitled "Command Action," for each lesson
   learned. These paragraphs were omitted by the 93rd Engineer Battalion.
   Since the unit was inactivated on 31 July 1971, this headquarters is
   unable to determine what command action was taken.

3. Reference item concerning "Personnel" page 4, Section II para a(1):
   USAV manual 640-1, para 2-2 provides that redeploying or inactivating
   units will submit a list of critical personnel requirements through
   the date of redeployment or inactivation to USAV HQ, not later than
   45 days prior to date of redeployment/inactivation. No list of critical
   personnel requirements was received from the 93rd Engineer Battalion.
   No action by USAV is recommended.

SIGNED
D. I. FREED
C/T, AG
Assistant Adjutant General
TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD,
APO 96558

This Headquarters has reviewed the Operational Report - Lessons Learned for the period ending 31 July 1971 from Headquarters, 93D Engineer Battalion and concurs with comments of indorsing headquarters.

FOR THE COMMANDER:

[Signature]

CPT AGC
ASSISTANT ADJUTANT GENERAL

Cy furn
93D Engr Bn
USARENGCOMDV
GPOP-FD (31 Jul 71) 4th Ind

SUBJECT: Operational Report-Lessons Learned, HQ 93d Engr Battalion, for Period Ending 31 July 1971, RCS CSFOR-65 (R3)

HQ, US Army, Pacific, APO San Francisco 96558

TO: HQ DA (DAFD-ZA), WASH DC 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

L.M. OZAKI
CP, AGC
Asst AG

20 JAN 1972
I. Mission: On 17 June 1971, the 93d Engineer Battalion was notified to commence standdown on 1 July 1971. Inactivation of the battalion was to be completed by 31 July 1971.

II. CONCEPT: The 93d Engineer Battalion was to continue to exercise command and control of attached units and to be responsible for assigned tasks until 5 July 1971. On that date the 67th Engineer Company (DT) was detached and transferred to the 69th Engineer Battalion. All major active projects with the exception of Bridge 27/5 were transferred to the other battalions within 34th Engineer Group on 5 July also. Standdown began on 1 July 1971 with C Co standing down at Binh Thuy Army Post. (See chronology of events for standdown schedule)

III. FACTORS AFFECTING STANDDOWN ACTIVITIES:

a. The load time from notification to actual standdown was rather short. Formal planning was discarded as being wasted effort since a number of variables remained unknown from the time of notification until well into the initial company's standdown. Planning consisted of daily staff coordination and broad guidelines on the actual execution. Standdown had been anticipated by the goals directed for the Clarke Plan and turn-in of excess equipment had been under way for approximately four weeks prior to notification.

b. Unknowns such as criteria for drops and equipment turn-in procedures cause some problems and delays. It was assumed that 60-day drops would be granted. When the decision to grant only 30-day drops was made there was some decline in the morale of those people in the 30 to 60 day category. As this concerned 40 odd people it did not create much of an administrative problem for the personnel section. However, the delay in deciding if the battalion would be allowed to turn-in equipment by Keystone procedures could have been disastrous. The decision to do so was made on 5 July and was received by the battalion on 6 July. This delay caused a hold-up on transportation requests as the battalion did not know where or how the equipment would be turned in.

c. Immediately upon notification, the S-4 coordinated with his counterpart in the other battalions of the 34th Group. A list of lateral transfers was rapidly assembled and sent to group for approval. Additionally, the decision to transfer men and equipment, working on projects, as a package to the gaining organization greatly assisted standdown. All this was accomplished on paper prior to 1 July with the physical transfer proceeding as the individual companies began standdown.

d. Company's were allotted 10 days to complete standdown. This period is more than enough time. The only problem encountered was the availability of water transport which caused delay of the first two companies in getting their equipment under way to Long Binh. This problem did not reappear for the rest of the standdown period.

e. A Keystone turn-in team is essential. After a visit by key personnel to the Keystone facilities and SOP for turn-in of equipment was made up to enable the subordinate elements of the battalion to prepare the equipment as far as possible prior to shipment to Long Binh. However, a crew of personnel who are familiar with the Keystone procedures, the whereabouts of the Keystone facilities and most important, who have established a rapport with the Keystone personnel is invaluable. Also, the shepherding of the equipment through turn-in by responsible NCO's and officers tends to enhance operations.
f. Water transportation will be a continuing problem for units standing down in the Delta. Practically every mode of transport that became available was used by the 93d. It is doubtful that transportation assets could cope with more than one engineer organization in the process of standdown at the same time. Early determination of transportation requirements must be accomplished and personnel must be familiar with preparation of TCND's and the procedures of TMA and MCC.

IV. CHRONOLOGY OF EVENTS:

17 Jun 71 - Notification of standdown.
22 Jun 71 - Submission of personnel & equipment packages and lateral transfers to group.
29 Jun 71 - All package transfers and lateral transfers completed.
30 Jun 71 - Received criteria for personnel drops.
 1 Jul 71 - C Co began standdown at Binh Thuy.
 5 Jul 71 - B Co began standdown at Thet Not.
 6 Jul 71 - Battalion notified to turn-in equipment at Keystone.
 7 Jul 71 - Facility - Keystone turn-in team moves to Long Binh, D Co begins standdown at Binh Thuy (North).
 9 Jul 71 - Pack barge arrived for loading at Thet Not.
10 Jul 71 - C Co at zero strength.
11 Jul 71 LST arrives for loading at Binh Thuy (North).
14 Jul 71 - B Co relocates to Binh Thuy; 36th Bn disassemble Thet Not Base.
15 Jul 71 - A Co begins standdown at Binh Thuy (North); B Co at zero strength; two LCU loaded at Binh Thuy (North).
19 Jul 71 - Bridge 27/5 completed.
20 Jul 71 - Two LST's loaded with D, A, and B Co equipment.
21 Jul 71 - D Co at zero strength; HHC begins standdown.
23 Jul 71 - Final LCU loaded at Binh Thuy (North).
24 Jul 71 - 69th Battalion assume responsibility of Binh Thuy (North).
25 Jul 71 - Entire battalion at zero strength
27 Jul 71 - Draft of After Action Reports submitted.
30 Jul 71 - Real property at Binh Thuy transferred.
31 Jul 71 - Equipment turn-in completed, standdown complete.
INDEX

Annex A - Personnel and Administration
Annex B - Intelligence - Commo & Electronics
Annex C - Operations
Annex D - Logistics
Annex E - Maintenance
ANNEX A (Personnel and Administration) to 93d Engineer Battalion
After Action Report

1. **Observation:** Criteria for unit standdown or drawdown should be firm prior to notification.

   **Discussion:** Initially we were directed to submit the DER3S Loss Report indicating personnel with less than 60 days to DEROS as of final standdown date. However after the first five days we received notice that only those individuals with less than 30 days to their tour would be reported.

2. **Observation:** No authority for the unit standdown could be cited throughout the standdown.

   **Discussion:** Throughout the standdown no written authority was received. It became rather difficult at times, especially in reporting, to cite the authority we had for the actions we were taking.

   **Recommendation:** Prior to standdown the subject unit should receive all essential information so as to eliminate as much uncertainty as possible.

3. **Observation:** Lack of advance notice of the standdown.

   **Discussion:** It was not until the third day of the standdown that the operations order was received. Prior to its receipt all information was obtained verbally. At no time during the standdown were comprehensive and definitive guidelines received. In view of the short period of time that the unit was allotted to standdown after notification, this created an unnecessary burden.

   **Recommendation:** The subject unit should receive its advance notice for standdown at least 14 days prior to the starting date. This would allow the unit to think through the procedure given for standdown and to detect, in advance, any potential problem areas.

4. **Observation:** No guidance was received pertaining to the disposition of flags, guidons and oversize certificates and awards of historical nature.

   **Discussion:** Contact was made with the 26th Military History Detachment and we were instructed to ship all such items to U.S. Army Support Command, Philadelphia.

   **Recommendation:** Information should have been provided in the original operations plans to eliminate as much confusion as possible.

5. **Observation:** The personnel criteria was not received until late in the operation (after 1 July 71) which delayed some what the timely processing, plus raised the hopes for the personnel with 60 days to DEROS. The criteria, when received, provided 30 days drop and all other personnel were transferred within the 34th Engineer Group except for 50 enlisted, 1 officer and 1 warrant officer transferred to the 159th Engineer Group. Some of the personnel transferred will have a little over 30 days until DEROS and their reassignment to a new unit will be an administrative burden, especially for personnel with 30 to 50 days remaining to DEROS. These conditions affect the morale of personnel adversely.

   **Recommendation:** That personnel with less than 60 days to DEROS be transferred out of country rather than to another unit in country.
1. **CLASSIFIED MATERIALS:** Upon notification of drawdown a complete inventory was conducted of the S-2 files. Files that would be needed during and after drawdown were marked and all other files were destroyed in accordance with USARV Regulation 380-5.

2. **PERSONNEL DEBRIEFING:** All personnel with a secret clearance or higher were required to receive a security debriefing. Debriefing certificates were prepared in advance for every one in the battalion who had a secret or higher clearance. In this way, when the person came in to clear, the certificate would already be made out.

3. **PERIMETER SECURITY:** The battalion was relieved of perimeter guard responsibility by DCSA on 10 July 1971.

4. **PLANNING:** The major problem in planning for the drawdown was that we did not get official word that we were going to drawdown until shortly before it was to begin. The first steps in planning were to decide at what times different types of equipment could be turned in immediately. It was decided to have all of the commo equipment brought to the HHC commo shop for turn-in. The battalion communication section would prepare all of the paper work for the equipment.

5. **OPERATION:** As each company began drawdown the equipment they were signed for was all placed in one group and any excess equipment was placed in another group. In this way, if any company came up missing anything we usually found it in the excess of another company. Because of our prior planning, by the early part of the drawdown month almost all of the signal equipment for the battalion was ready for turn-in. All officers were cut to one field phone, and unneeded lines were taken out, thus enabling the turn-in of switchboards. 34th Group and the 69th battalion were very helpful in providing us with some of their switchboards and power supplies so that we could turn ours in.

6. **PROBLEMS AND RECOMMENDATIONS:** Only two problems really presented themselves. First, there was a lack of personnel during drawdown. Coordination must be made with personnel section to insure that key personnel are kept until no longer needed. The second problem was having to turn-in the equipment and at the same time maintain communications. Coordination should be made with higher headquarters and other units for the use of some their equipment while turn-in is taking place.
ANNEX C (Operations) to 93d Engineer Battalion
After Action Report

ASSIGNED MISSIONS:

a. The battalion continued to work on all assigned projects past the beginning of the standdown period.

b. The operational responsibility for LOC road from Rach Ca Ngai to Sa Dec. was transferred to the 34th Engineer Battalion (Const).

(1) CD 410-0324-0-01 (LTL-27 restoration from bridge #2 to Rach Cat Ngai) was transferred to the 69th Engineer Battalion (Const.) Individuals and construction equipment were transferred to the gaining unit prior to standdown, allowing continuation of work with smooth and orderly change of control.

c. The responsibility for LOC Bridge construction (CD 410-0322-0-01, LTL-27/5 A Bridge piles) was directed to be transferred to the 36th Engineer Battalion on 15 July 1971. By direct coordination with the gaining unit and approval from the 34th Engineer Group, the project was completed by the 93d Engineer Battalion. The last piles were driven 18 July 1971 and the pile driving crew and equipment were moved to the 36th Engineer Battalion. The Bailey bridge was received by personnel from A and D companies, and D company of the 69th Engineer Battalion. Equipment was furnished by the 69th Engineer Battalion. The completion report was prepared by this headquarters and forwarded to group.

d. The responsibility for Dong Tam Team #75 MACV facility (CD 825-0307-0-01) was transferred to the 36th Engineer Battalion on 5 July 1971. Individuals and equipment committed to the project were transferred to the gaining unit prior to standdown. This allowed smooth and uninterrupted work on the project during the standdown period. An Interim Completion Report was prepared and the project folder was hand carried to the gaining unit.

e. Eight active projects were terminated or completed during the standdown period as directed.

(1) CD 291-63-6-4-21 (perimeter defense of AOR: Project terminated on 31 July 1971.

(2) CD 310-5348-0-20 (NER for That Not): Project terminated, Composite Report submitted, No 1354's were required.

(3) CD 510-0331-0-01 (52d Signal): Project completed.

(4) CD 510-0331-0-01 (Cantonment) and hardstands at BTY and BTY(N): Project terminated, Report prepared and forwarded to group. No 1354's were required for facilities constructed at Binh Thuy (North).

(5) CD 510-0353-0-01 (Cantonment) and hardstands at That Not): Project terminated, Report prepared and forwarded to 34th Group. No 1354's were required.

(6) CD 510-0356-0-01 (Recreational Facility at BTY): Final construction performed during standdown.

(7) CD 810-0331-0-01 (DRRC Facilities at BTY): Project completed.
(8) CD 810-0326-0-C1 (Binh Dai MACV Facility): Project completed by coordinating change of scope with user, Report forwarded to 34th Engineer Group.

f. Two projects were worked on during the standdown period but could not be finished and were transferred to the 69th Engineer Battalion under directions of 34th Engineer Group.

(1) CD 210-6154-0-20 (Revetment construction at BTY): Remaining work consisted of placing precast revetments and footers. Difficulties in completing the facility were caused by a stop work directive which was received telephonically. Interim COMPREP Report was prepared and submitted.

(2) CD 210-8309-0-21 (Materials Issue to Eakin Compound): Several attempts were made to locate materials, coordinate lateral transfers, and deliver materials. All materials were not available. Interim COMPREP was prepared and submitted.

2. RECORDS AND REPORTS:

a. Completion Reports or COMPREP were prepared and submitted for all projects.

b. Project files, construction records and plans were forwarded to appropriate battalions or 34th Engineer Group as required.

c. Prepared and submitted final ORLL.

3. TRAINING:

a. Mandatory training was conducted by all companies until their respective standdown dates.

b. Individual training records were brought up to date and attached to the 210 files of personnel being redeployed within USARV.
On 13 June 1971 the battalion was given unofficial notice that it would commence standdown on 1 July using Keystone procedures.

The emphasis during the last two weeks in June was on turning in and transferring as much equipment as possible. As July approached, two major problem areas became evident: first, the transportation of the equipment to Long Binh and, second, learning the complex documentation required for the turn-in of the items.

**MATERI AL TRANSFERS:**

The battalion S-4 was directed by 34th Group to complete about 250 lateral transfers before 1 July, the purpose being to fill the TOE shortages of the other engineer battalions in the Delta. Due to lack of time there was much emphasis on completing the paper transfers quickly. As a result the gaining unit often could not inspect the item until they picked it up. This meant in several cases that some equipment was rejected; it was then necessary to prepare those items for retrograde on short notice.

Another difficulty in completing those transfers was the lack of a definite date for pickup. For a variety of reasons the gaining unit was not always able to pick up its equipment within a reasonable time frame. The result was that the equipment stayed in the 93d Battalion area well into the month. This created unnecessary confusion in preparing the equipment to be retrograded.

**TRANSPORTATION:**

From mid-June to 20 July, 4 ESTs, 6 LCUs, and 1 pack barge were used to move approximately 5,500 tons of equipment. The water shipment was limited to large roll on, roll off vehicles that battalion personnel at Long Binh could offload quickly. The smaller immobile items were transported directly to the forward detachment area by road using battalion lowboys. The emphasis at all times was control over cargo movement as much as possible, double handling wherever possible.

Water transportation by barge and LST was arranged through TMA at Can Tho Airfield. Transportation by LCU was arranged through MCC Binh Thuy Army Base. The shipments through TMA were given a priority 3 by formally requesting that the movement be designated a unit move.

**TURN-IN:**

PC&S property was turned into the Supply and Service Detachment at Binh Thuy. This reduced transportation requirements considerably. At Long Binh the battalion set up a turn-in team headed by the EEMO. As each company dispatched its equipment it sent its maintenance officer, supply sergeant and clerks to monitor the equipment turn-in. As each company completed the turn-in of its equipment the company was cleared through the S-4.

**LESSONS LEARNED:**

1. There should be a definite cut-off date beyond which all unclaimed laterally transferred equipment will be retrograded.

2. Because of the transportation problems involved with units in the Delta it is a distinct advantage to have a clerk trained in making TCMDs and keeping track of the cargo to be shipped. It is also important to develop a shipping schedule as
early as possible to include specific identification of cargo and dates for pick up.

3. A permanent stationed forward detachment in Long Binh would be invaluable in keeping up to date on changes in turn-in procedures and avoiding any loss of time in educating each battalion when its time for standdown approaches.
ANNEX E (Maintenance) to 93d Engineer Battalion
After Action Report

1. The following procedures have been extracted from the 79th Maintenance Battalion Keystone SOP and will be adhered to by units of the 93d Engineer Battalion.

2. The following documentation will be required for the turn-in of equipment to the Keystone Processing Points.
   a. Appropriate equipment historical records as required by TM 38-750, paragraph 4-21, and in appendix C or E.
      (1) DA Form 2408-7 Equipment Transfer Report will be prepared and will accompany appropriate historical records.
      (2) When a piece of equipment being turned in is a combat loss, the DA Form 2408-7 will be annotated indicating that the item is in fact a combat loss. The circumstances involving the loss will be written in statement form on the DA Form 2408-7 and will be approved by either the battalion or brigade commander as outlined in USARV Supplement #2 of AR 735-35.
      (3) Where historical records for a piece of equipment are not available, log books must be reconstructed as nearly as possible prior to turn-in.
   b. DA Form 2765-1 will be prepared as the turn-in document.
      (1) A maximum of 25 weapons will be turned in on a single 2765-1. Serial numbers of these weapons will be listed on the back of each copy of the 2765-1.
      (2) In the case of a set which has a vehicle as a component part of the set, one 2765-1 will be prepared for the set, not the vehicle. A separate 2765-1 is required for each set.
      (3) One DA Form 2765-1 will be filled out for each USA or Serial numbered item of equipment. The serial number of USA number of a vehicle and the T&E# will be listed in the publication data block of the DA Form 2765-1.
   c. USARV Form 562 (SCRAN)
      (1) Six copies of USARV Form 562 are required for each 2765-1 submitted regardless of the number of items on the 2765-1.
      (2) USARV Form 563 (Multi Statement Form)
         (1) Six copies of USARV Form 563 are required for each 2765-1 when turning equipment to the Single Item Processing Point. Sets, kits or outfits also require six copies of this form, those items are turned in at the MIPP.
         (2) One copy of USARV Form 563 is required for each 2765-1 for small arms and PC&S.
   d. Sets, kits and outfits.
      (1) Components for sets, kits and outfits will be reconstituted as nearly as possible.
      (2) Non-expendable items in sets, kits and outfits will be accounted for either by turn-in, by a property initiated report of survey, or other applicable supply procedures.
      (3) Both missing non-expendables and expendables must be listed on the back of USARV Form 563.
   e. Basic Issue Items (BII)
      (1) All basic issue items (except C-197) for track vehicles and wreckers will be processed at Keystone BII processing van.
(2) Communications equipment will be turned in separately at the MIPP. All necessary turn-in documentation is required.

(3) Boxes for packing BII will be provided at the BII Van.
(4) Packaging, and preserving will be accomplished by the unit with technical assistance provided by Keystone.
(5) Vehicles remaining in country will retain their BII after crating. Vehicles being shipped out of country will leave BII at the BII Van after crating. Keystone personnel will determine if BII is to remain with the vehicle.
(6) Missing BII will be listed on the back of the USARV Form 563. Listing will include FSN, Noun nomenclature and quantity for each missing item.
   (a) Expendable BII will be listed first.
   (b) Missing Non-expendable and recoverable BII will be listed under the following statement, followed by the signature block and signature of the accountable officer: i.e., Company Commander or S-4.

   "I certify that the below missing non-expendable and recoverable items are being accounted for IAW AR 735-11."

3. Annex "A" contains a list of common errors.

4. It is essential that all units be thoroughly briefed on those turn-in procedures and sufficient copies of this guideline be disseminated to insure an effective and efficient turn-in program. A control section will be formed to schedule and control all equipment being turned in. This section should include one man who will audit all paperwork for correctness and completeness prior to movement of the equipment and to the Keystone processing points.

5. Checklist to preclude most common errors:

(1) All missing parts including, BILL & OVE will be listed on back of USARV Form 563. Common standard hardware not required, i.e., nuts, bolts, washers.
(2) A 2408-7 "Combat loss certificate" will be approved by a higher headquarters when an item is a combat loss.
(3) Tires will be present and inflated on all vehicles. Spare tire must be mounted in proper place on vehicle but does not have to be inflated.
(4) All organizational maintenance will be completed prior to turn-in or the vehicle will be rejected.
(5) All logbooks will be present with vehicles or unit will make up logbook prior to turn-in.
(6) Trucks will be loaded properly and orderly.
(7) PA&E must check refrigerators for serviceability prior to their being disconnected or turned in.
(8) All personnel will be supervised by a responsible individual, NCO or officer.
(9) Don't fuel vehicle, if it has an unserviceable assembly.
(10) Use dunnage between trailers when double loading to avoid unnecessary damage.
(11) All unit markings will be painted out at the audit point.
(12) Complete customer portion of USARV Form 562 & 563 properly. If equipment has an engine, fill out appropriate blocks.
(13) Reduce vehicles to lowest profile.
(14) Vehicles will be immediately rejected if ammo is found, officers are certifying that ammo has been removed when it is not.
(15) Fuel will be drained from power gen and small engines piece of equipment prior to turn-in.
(16) All vehicles must be pre-washed before stopping at audit point, Protect log books & paper work from water.
(17) Equipment listed in SB 700-20 with attachments must come in with all
attachments. (i.e. 40 ton crane w/beam 7 counter weight)

(18) Send operators with engineer equipment.

(19) Speeding and reckless driving will not be tolerated in the wash rack area. Horse play will not be tolerated. Use the one way traffic system. Keep vehicles in line and orderly.

(20) If possible customers should have contact vehicle with tools, OD paint, brushes and lube equipment to expedite turn-in.

(21) It is vitally important that the customer can tell the inspectors the status of non-op equipment, i.e. What major assembly is unserviceable and if the frame is bent or cracked.

(22) Accurate mileage and hours must be so indicated on 562. Customer must research logbooks for speedometer, tachometer changes.

(23) Customers will use trash receptacles provided.

(24) When data plate is missing, unit must stencil in 1" letters the serial number on item in a visible area.

(25) Units will bring parts manuals in case they must enter missing or overlooked parts on the 563.

(26) All APC ramp handles will be wired up to prevent possible accidental lowering of ramp.

(27) Armament sub systems will be removed, bended to pallets and turned in separately from the major end items. Turn-in will be accomplished thru single items processing point.

(28) Floatation and belly armor will remain with vehicle.

(29) Units will have an NCOIC in charge at wash rack, NCOIC in charge of paper work and NCOIC at documentation area for control of turn-in and movement of vehicles.

(30) Engine and vehicle data plates must be clean. (N/A track vehicle engine).

(31) All unauthorized MWO's must be removed prior to turn-in.

(32) All USARV Forms 563 must have SIPP signature block of CWO Simean C. Loc in para 7, if item is to be turned in at the SIPP.

(33) All security containers will be checked by a responsible officer prior to turn-in to insure that all classified material has been removed. All containers will be turned in open and the combination painted on the door and top of the container.

(34) Final drivers on track vehicles will be disconnected if vehicle is to be towed.

(35) Breach blocks and interior of gun tubes must be coated with GAA grease.
Subject: Operational Report - Lessons Learned, 69th FLR BN (Const), Period Ending 31 October 1971, RGS GFOR - 65 (R3).

2. Lessons Learned: Commanders Observations Evaluations and Recommendations:

   a. Personnel: None

   b. Intelligence: None

   c. Operations

      (1) Subbase Failures

          (a) Observation: With the advent of the rainy season it was observed that sub-bases of clay-lime and 2" (-) base rock were not capable of withstanding the combination of water and traffic.

          (b) Evaluation: Clay-Lime and 2" (-) base course material, although exceedingly stable during the dry seasons, is unstable and very difficult to work during the heavy rains experienced in the Mekong Delta. Inadequate compaction was prevalent and material in-place showed rapid deterioration. Results were excessive amounts of lost time and duplicating effort attempting to construct adequate road beds and reestablishing previously constructed areas.

          (c) Recommendations: That subbases of clay-lime and 2" (-) material be overlifted with a plant produced asphaltic product to protect it from the weather and to provide a temporary wearing surface prior to final paving.

      (2) Construction of Bridge Approaches

         (a) Observation: The Delta rainy season almost prevents the construction of bridge approaches and the successful completion of benching and shelving as a part of road widening procedures.

         (b) Evaluation: The severity and force of Mekong Delta rainstorms made the construction of bridge approaches and shelving operations very difficult because of the swift and extensive washouts experienced. Stabilization of slopes was possible only through use of excessive slope ratios if usual base course materials were employed.

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(c) 

**Recommendation:** That plant produced sand asphalt be used as the primary construction material for bridge approaches and benching/shelving in widening procedures.

(d) **Command Action:** Sand Asphalt was extensively used during the latter part of the rainy season with outstanding success. Delays in placement of 36-48 hours did not seriously affect the stabilization of the sand asphalt. It was found that it could be placed in wet weather, across wet terrain or through water without any affect on the final in-place product. The use of sand asphalt is a very expensive substitute for usual base materials; however, in view of its workability in wet weather it is highly recommended for future operations in similar environments. The losses in cost due to the expense of sand-asphalt is in part counterbalanced by a substantial savings in man-hours that would be required to continuously repair normal base course placed in inclement weather.

Organization: None

Training: None

Logistics:

1. **Retrograding Excess Equipment and Vehicles**

   a. **Observation:** With a serious effort being made to retrograde excess equipment and vehicles prior to actual standdown, it became evident that centralized procedures under battalion control must be developed and adhered to.

   b. **Evaluation:** Attempts to allow individual organic units to carry out their own retrograde of excess equipment proved to be grossly inadequate primarily because unit personnel were not familiar with turn-in procedures. Unit personnel were more interested in the construction mission than in retrograde, and turn-in supply points were not open at times conducive to unit turn-in.

   c. **Recommendation:** That retrograde procedures be centralized under battalion control.

   d. **Command Action:** Retrograde procedures were established whereby equipment was identified as excess by the individual unit and requested for turn-in. The S-3 Officer reviewed the request with respect to overall battalion requirements. If approved the request was forwarded to the S4 Officer who initiated necessary documentation and notified a "retrograde platoon" formed for the express purpose of preparing equipment for turn-in and finalizing the turn-in. Upon receipt of notification the retrograde platoon of Company A would call the piece of equipment forward from the unit, prepare it for turn-in and transport it to the turn-in point.
SUBJECT: Operational Report - Lessons Learned, 69th Engr Bn (Const), Period Ending 31 October 1971, RCS CSFOR - 65 (R3).

Communications:

(a) Observation: The AOR of the battalion was extremely widespread making FM radio communications very difficult. Outlying units had to depend on voice relay.

FM Radio Communications

(b) Evaluation: The distance between battalion units made direct FM Communications an impossibility. Because of the enemy situation in the areas occupied by some battalion elements it was imperative that some means of reliable communications be installed.

(c) Recommendation: That the unit install and operate a retransmission FM station utilizing the retrans capability of the AN/VRC-12 series of radios.

(d) Command Action: Communications personnel obtained the necessary equipment required to establish a retrans-station. This equipment, which is not TOE to an engineer construction battalion, was installed and operated from a location mid-point in the battalion AOR with great success. In addition to establishing communications between outlying units and their parent organizations, a significant increase in production and efficiency was noted. This item of equipment should be made a part of the TOE communications equipment of the construction battalion.

h. Material: None
i. Other: None

RICHARD H. BENFER
LTC, CE
Commanding
SUBJECT: Operational Report – Lessons Learned, 69th Engineer Battalion (Const),
Period Ending 31 October 1971, EGS-CSFOR-65 (R3)

DA, HEADQUARTERS 34TH ENGINEER GROUP (CONST) APO SF 96215

12 Nov 71

TO: Commanding General, United States Army Engineer Command, Vietnam,
ATTN: AVCC-MO, APO San Francisco 96491

The significant activities and lessons learned have been reviewed and are an adequate reflection of the unit's operation during this period.

FOR THE COMMANDER:

[Signature]

DANIEL F. WOODS
CPT, CE
Adjutant

CO 69th Engr Bn
AVCC-MD (31 Oct 71) 2nd Ind

SUBJECT: Operational Report - Lessons Learned, 69th Engineer Battalions (Construction), Period Ending 31 October 1971, RCS CSFOR-65 (R3)

HQ, U.S. Army Engineer Command Vietnam, APO San Francisco 96491

TO: Commanding General, U.S. Army Vietnam, ATTN: AVHDO-DO, APO San Francisco 96375

1. The significant activities and lessons learned have been reviewed and are an adequate reflection of the unit's operation during this period.

2. Reference item concerning "FM Radio Communications", page 15, paragraph 2g (1). Concur. Although the size of the AOR of the 69th Engr En necessitated the installation of an FM retransmission station, the normal AOR of an Engineer Construction Battalion would not create this requirement. It is recommended that communications equipment necessary to install an FM retransmission station be made readily available (e.g. Temporary Loan) to a unit which requires this capability due to the tactical situation and/or AOR. This equipment should not be made a part of the TOE communications equipment of the construction battalion. No action by USARPAC or DA is recommended.

FOR THE COMMANDER:

THOMAS E. SAFLEY
1LT, ADA
Acting Asst Adj General
TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD, APO 96558

This Headquarters has reviewed the Operational Report - Lessons Learned for the period ending 31 October 1971 from Headquarters, 69th Engineer Battalion (Construction) and concurs with comments of indorsing headquarters.

FOR THE COMMANDER:

[Signature]

L. CHILDRESS

CPT AGC
ASSISTANT AGENT GENERAL

Cy furn:
69th Engr Bn
USARENGCOMDV
GPOP-FD (31 Oct 71) 4th Ind
SUBJECT: Operational Report—Lessons Learned, HQ 69th Engr
        Battalion (Const), for Period Ending
        31 October 1971, RCS CSFOR-65 (R3)
HQ, US Army, Pacific, APO San Francisco 96558 20 JAN 1972

TO: HQ DA (DAFD-ZA), WASH DC 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

[Signature]

L.M. OZAKI
CPT, AGG
Asst AG
**Operational Report - Lessons Learned, Hqs. 27th Engr Bn, 93rd Engr Bn, 69th Engr Bn, Period Ending 31 October 1971.**

Experiences of unit engaged in counterinsurgency operations,