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SUBJECT: Operational Report on Lessons Learned for the period 1 January thru 30 April 1966. (RCG CSPO-28 (H))

Assistant Chief of Staff for Force Development
Department of the Army (AGS FOR DA)
Washington, DC 20310

1. References:
   b. USAV Circular 870-1, w/change 1, dated 1 Apr 66, Subject: Operational Report on Lessons Learned.

2. The following report for the period 1 January through 30 April 1966 is submitted:

SECTION I: Unit Activities

a. General: During the report period, the 87th Engineer Battalion (Const) continued its primary mission of construction in support of counterinsurgency operations in the Republic of Vietnam.

b. Operations:
   (1) Construction operations included completion of the following projects:

   (a) Construction of six inch pipeline and a 172,000 barrel POL storage facility. The completed facility includes over 6 miles of six inch pipeline, tanker unloading connection, a mainline pump station, sixteen 10,000 barrel bolted steel tanks, four 3,000 barrel bolted steel tanks, a switching and transfer manifold and tank farm pump system, one standard quonset building, and 1.5 miles of security fence. This was a major project which materially increased the capability for providing logistic support to combat operations.

   STATEMENT #2 UNCLASSIFIED

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(b) Cleared and leveled a 240'x400' area, hauling 1800 tons of fill to provide a standard 2 cantonment area.

(c) Construction of Branch PX building which involved site preparation, placement of a 20'x100' concrete floor slab, and erection of a wood frame building with interior partitions, shelving, and lighting.

(d) Cleared and leveled a 60x100 meter area for signal equipment storage.

(e) Cleared and leveled a 100'x500' area for an R&M facility.

(f) Construction of a 30Q and Officer club complex consisting of four concrete floor slabs (120 cubic yards of concrete), frame for four GP large tents, and a latrine building.

(g) Constructed 40,000 square feet of open storage area.

(h) Constructed ten concrete anchors for a floating bridge, each anchor requiring two cubic meters of concrete.

(i) Removed 7,000 square feet of damaged P3P, reshaped 250 feet of beach, and stabilized three 40'x20' ST landing ramps using rock and crushed coral.

(j) Installed fluorescent light fixtures in the 61st Medical Dispensary.

(k) Installed 1,050 feet of drain pipe and constructed three concrete manholes to provide a collector drain system through a hydraulic fill area.

(l) Installed a 600 GPH water heater, a 310 gallon storage tank and plumbing for a hot water system in an existing permanent building.

(m) Fabricated and erected a 35 ft flag pole.

(n) Constructed a 40'x200' Finance building with a reinforced concrete vault, tellers cages and administrative offices. This included fabrication and installation of the vault doors.

(2) In addition to the projects which were completed during this period, significant progress was made on the following projects:

(a) Construction of a 6400 man cantonment area.

1. Placed 58 concrete slabs ranging in size from 14'x25' to 40'x100' to complete the 97 required.

2. Placed 425 sand-cement slabs (16'x32') to complete the 470 required.
Subj: Operational Report on Lessons learned for the period 1 January thru 30 April 1966 (RCS G2/2G-28 R1)

(b) Stabilization and improvement of ASP # 2 road:
1. Expended 35,354 man hours and 24,748 equipment hours.
2. Hauled, placed and compacted 67,76l tons of coral.
3. Moved 707,609 tons of fill.
4. Paved 1.4 miles of road with hot mix asphalt.

(c) Rehabilitation of Army Airfield:
1. Hauled and placed 210,935 tons of fill for the relocated and extended runway.
2. Stabilized 9,000 square yards of base course, using 46,940 gal of asphalt cutback.
3. Installed 150 feet of culvert.

(d) Construction of miscellaneous cantonment area facilities:
Constructed 24 tent frames (20'x100' and 20'x120') for billets and 5 smaller tent frames for offices.

(e) Road Maintenance: Maintained approximately 10.8 miles of road expending 15,120 man hours and 9,017 equipment hours. Hauled, placed and compacted 10,314 tons of coral and 5,093 tons of crushed rock.

(f) Dial Exchange Building:
2. Completed building shell (40'x100').
3. Completed generator shed.

c. Supply:

1. During the report period, a total of 7,520 supply transactions were processed. Of these, 1,708 were requisitions for construction materials.
2. During the report period, this unit's water point produced and distributed a total of 4,401,970 gallons of potable water.

d. Equipment and Maintenance: The following are the significant activities of the Battalion maintenance operations for this report period.
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(1) Repair Parts:
   (a) A total of 6,948 requisitions were submitted through normal supply channels. Of these, only 1,995 were filled, and the remaining 4,953 are outstanding.

   (b) "R.D BALL" repair parts supply system: A total of 2,360 requisitions were submitted of which 1,744 were filled. A total of 236 items of equipment were removed from deadline through the R.D BALL repair parts supply system during the report period.

(2) Field Maintenance: A total of 873 third echelon job orders were received. Of these, 829 were completed.

(3) Equipment Exchange: The following items of equipment have been exchanged through maintenance float and depot turn-in and issue:

   (a) Three (3) each 250 Cm. Air Compressor
   (b) Five (5) each Grader, Road
   (c) Two (2) each Mixer, Concrete
   (d) Three (3) each Truck, 2½ ton
   (e) Five (5) each 5 ton Cargo 110-2½ ton
   (f) Two (2) each Truck 3½ ton

(4) Training: During the report period, a training program has been initiated and training is to be conducted in the following areas:

   (1) Weapons Firing
   (2) Preventive Maintenance
   (3) On-the-Job-Training, with emphasis on training of heavy equipment operators.
   (4) Command Information

(5) Command Inspection: A Command Inspection was conducted by this headquarters of all companies of the battalion during the month of April.

(6) Civic Action: This battalion's civic action program has been expanded to include assistance to the village of B'NAM BA in addition to the village of BURF XUNRG. Weekly sick call is conducted at both villages.

SECTION II: Commander's Comments and Recommendations

(a) General: This battalion continued to function during this period in its primary mission of performing construction in a theater of operations. However, the accomplishment of the engineer mission has been affected to a significant degree by the following:
Subj: Operational Report on Lessons Learned for the period 1 January thru 30 April 1966. (RCS C53PO-28(II) (Cont) 15 May 66

(1) Operations: The lack of construction materials when needed continues to delay completion of construction projects.

(2) Personnel: This battalion is still operating at less than authorized strength (89%).

(3) Maintenance and Equipment: This unit has had thirteen (13) 5 ton multi-fuel trucks (M51A2) deadlined due to failure of power steering pumps. This problem was solved by manufacturing an adapter plate enabling the installation of the pump for the 5 ton gasoline engine truck (K-52). This modification is working well.

(4) Communications:

(a) "Over age" communications equipment continued to be a problem, and the deadline rate has continued to rise. The AN/GRC-19 radio has averaged a 60% deadline rate and the AN/VC-34 a 50% deadline rate during this period.

(b) Many communications "dead spots" have been noted in this locality. The present equipment does not provide adequate communications.

(c) Recommend that M: radio sets be provided.

b. Lessons Learned: Construction operations during this period have proven the validity of the lessons learned during the previous reporting period. In particular, recent rains have presented a reminder that drainage is necessary regardless of the length of the dry season or the apparent soil conditions. In addition, the following are considered significant:

(1) Item: Erosion due to wave action.

(a) Discussion: The rock fill causeway for the Delong Pier was constructed of ungraded blast rock without a concrete facing or binder. Although it showed only very minor evidence of erosion for a period of over three months, it was badly eroded by wave action following a small thunderstorm which occurred at high tide.

(b) Observation: Due to the erosion caused by constant wave action, rock causeways, jetties, and similar structures should be constructed of well graded blast rock bonded and faced with concrete. Earth or sand fill which is subjected to wave action requires retaining walls, revetment, or other protection to prevent excessive erosion.

(2) Item: Power steering pumps for M51A2 trucks.
Subject: Operational Report on Lessons Learned for the period 1 January thru 30 April 1966 (RCS G3GP-28 (H1) (Cont) 15 May 66

(a) Discussion: This unit experienced a high rate of failure of power steering pumps on 151A2 trucks. An adapter plate was manufactured which permitted mounting of the power steering pump from the H72 truck. This pump proved satisfactory.

(b) Observation: The power steering pumps of 151A2 trucks need modification to provide a safer vehicle which will withstand normal field use.

John J. McCulloch
Lt Col, CE
Commanding
1. In accordance with Department of the Army Regulation 525-24, dated 29 October 1959 and USAFR Circular 870-1, dated 11 November 1965, with Change 1 dated 1 April 1966; Subject: Operational Report on Lessons Learned (ACS CSGPD-28 (RI)), the subject report is forwarded for the 87th Engineer Battalion (Construction),

2. Concur in Commanders Observations.

FOR THE COMMANDER:

[Signature]

John M. Halliday
Capt., CE
Adjutant
SUBJECT: Operational Report on Lessons Learned for Period 1 Jan 66 - 30 Apr 66 (RCS CSGPO-28 (RI))

HEADQUARTERS, 18TH ENGINEER BRIGADE, APO US FORCES 96307, 7 June 1966

TO: Commanding General, United States Army, Vietnam, ATTN: AVC-HISTORY, APO US Forces 96307

Concur with commander's observations.

FOR THE COMMANDER:

ROBERT R. COMNOLLY
Major, CE
Adjutant
SUBJECT: Operational Report on Lessons Learned for the period 1 January thru 30 April 1966.

HEADQUARTERS, UNITED STATES ARMY, VICTORIA, APO San Francisco 96347

THRU: Commander in Chief, United States Army, Pacific, ATTN: G7CF-LH, APO 96558

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

1. This headquarters concurs with the 87th Engineer Battalion operational report on lessons learned.

2. Reference Section II, paragraph a(2): As of 3 July 1966, the 87th Engineer Battalion was at 94% of authorized strength (851 authorized, 804 assigned) and the 11th Engineer Brigade at more than 100% of authorized enlisted strength. The Brigade currently has the ability to insure the maintenance of subordinate units at acceptable personnel levels.

FOR THE COMMANDER:

JAMES R. PERRY
Major, USA
ASG Adjutant General
GPOP-MH (15 May 66) 4th Ind (U)

SUBJECT: Operational Report on Lessons Learned for the Period 1 January thru 30 April 1966 (RCS CSGPO-28 (Rl) (U)

HQ, US ARMY, PACIFIC, APO San Francisco 96558 16 AUG 1966

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

1. The Operational Report on Lessons Learned of the 87th Engineer Battalion for the period 1 January - 30 April 1966 is forwarded herewith.

2. The following comments are keyed to paragraphs of Section II of the basic O'ILL:

   a. Paragraph a(3): Equipment improvement report (EIR) has been submitted to ATAC covering this equipment deficiency.

   b. Paragraph a(4)(a): The priority of issue for the new family of radios goes to combat forces. Issue to combat service support units assigned to the 1st Logistical Command is established by the 1st Logistical Command.

FOR THE COMMANDER IN CHIEF:

[Signature]

D. A. HARRISON
Capt, AGC
Asst AG

Copy fur:
CG UsARV, Attn: AVG-DH

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