

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

IN REPLY REFER TO

AGAM-P (M) (15 Nov 67) FOR OT RD 670704

30 November 1967

SUBJECT: Operational Reports--Lessons Learned, Headquarters, 39th
Engineer Battalion (Cbt), Period Ending 31 July 1967

TO: SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation by USACDC in accordance with paragraph 6F, AR 1-19 and by USCONARC in accordance with paragraph 6c and d, AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT 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:

C. A. STANFIEL
Colonel, AGC
Acting The Adjutant General

1 Incl
as

DISTRIBUTION:

Commanding Generals

US Continental Army Command

US Army Combat Developments Command

Commandants

US Army Command and General Staff College

US Army War College

US Army Air Defense School

US Army Armor School

US Army Artillery and Missile School

US Army Aviation School

US Army Chemical School

US Army Civil Affairs School

US Army Engineer School

US Army Infantry School

US Army Intelligence School

THE MARKING FOR OFFICIAL USE ONLY
IS CANCELED WHEN SEPARATED FROM
PROTECTED MATERIAL

DISTRIBUTION (Cont'd)

US Army Medical Field Service School
US Army Military Police School
US Army Ordnance School
US Army Quartermaster School
US Army Security Agency School
US Army Signal School
US Army Special Warfare School
US Army Transportation School

Copies Furnished:

Office, Chief of Staff, US Army
Deputy Chiefs of Staff
Chief of Research and Development
Assistant Chiefs of Staff
Chief of Engineers
The Surgeon General
The Provost Marshal General
Research Analysis Corporation (Library)
Commanding Officers
 31st Engineer Battalion (Cbt)
 39th Engineer Battalion (Cbt)

HEADQUARTERS
39th ENGINEER BATTALION (COMBAT) (ARMY)
TASK FORCE OREGON
APO 96374

EGD-BA-3

15 August 1967

SUBJECT: Operational Report -- Lessons Learned (RCS CSFOR - 65). for
Quarterly Period Ending (15 August 1967)

THRU: Commanding Officer
45th Engineer Group (Construction)
APO 96238

Commanding General
18th Engineer Brigade
APO 96377

Commanding General
TASK FORCE OREGON
APO 96374

Commanding General
United States Army Engin
APO 96491

Commanding General
United States Army, Vietnam
ATTN: AVC-DH
APO 96307

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

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

Protective marking is canceled
15 November 1968

Section 1. Significant Organizational Activities:

a. GENERAL:

(1) The 39th Engr Bn Base Camp was located at DUC PHO Airstrip (BS 811379) until 15 May 1967 when the base camp was moved by LST to CHU LAI (BT 434078). The major activities during the reporting period were: Operation Multnomah, Operation Malheur II and Operation Lake. All operations were conducted with the 3d Bde, 25th Inf Div and 1st Bde, 101st Abn Div.

(2) Operation Multnomah was initiated by the 3/25 Inf Div and the 1/101 Abn Div on 26 April 1967. The 39th Engr Bn supported this operation by:

- (a) Daily mine clearing and maintenance of Beach Access Road and QL #1 in sector.
- (b) Construction of a Class II, 3800', C-130 Airstrip at DUC PHO.
- (c) Construction of a pioneer road from DUC PHO to QUANG NGAI.
- (d) Clearing ambush sites along QL #1.

(3) Operation Malheur II was initiated by the 1/101st Abn Div on 16 May 1967. The 39th Engr Bn supported this operation by:

- (a) Daily mine clearing and maintenance of Beach Access Road and QL #1 in sector.
- (b) Upgrading of QL #1 to Class 50 from DUC PHO to QUANG NGAI.
- (c) Construction of a 2000' Class I, C-7A Airstrip at MO DUC.

(4) Operation Lake was initiated on 7 July 1967 by the 3/25th Inf Div and 1/101st Abn Div. The 39th Engr Bn supported this operation by opening a pioneer road from DUC PHO to SA HUYNH. This was completed on 9 July 1967 with the passing of the first convoy.

(5) Company "A": At the beginning of the reporting period Company "A" was located at DUC PHO with the mission of constructing a Type II, C-130 Airstrip. This mission began in the final days of the previous reporting period. The opening and upgrading of QL #1 encompassed the remainder of this reporting period. This unit worked on an around-the-clock schedule; construction of the Airfield from 0400 - 2400 and maintenance of equipment from 2400 - 0400. In addition, a daily mine sweep was conducted east on the Beach Access Road. On 16 May 1967, heavy rains caused a two day delay in construction due to flooding of the area. This condition

was exactly opposite of that which plagued the construction from the outset. The weather had been hot and dry and water added for compaction evaporated too quickly, even when added at night. An additional mission was initiated on 21 May with the construction of an Access Road from the Airfield to QL #1. Construction started in earnest on QL #1 on 1 June when one platoon constructed a 45' dry span at (BS 786423). The following morning it was discovered that this span had been destroyed during the night. A temporary bivouac was established at this site and two 60" culverts were installed. On 5 June an APC, providing security for the work detail, detonated a mine resulting in one WIA, from the APC crew and one local national WIA. On 11 June, Company "A" moved to its present location at THACH TRU (BS 763473). On 13 and 14 June, Company "A" supported Company "B", 2/35th Inf with a demo team and a dozer to destroy VC tunnels and bunkers in the vicinity of (BS 776443). The pioneer opening of QL #1 was completed on the 14th of June when Company "A" linked up with Company "C" who had been working South from QUANG NGAI. During the night, elements of Company "A" provided security at various critical points along QL #1 and the first convoy from CHU LAI entered DUC PHO. The remainder of the reporting period was devoted to the upgrading of QL #1. Culverts were used to replace destroyed bridges whenever possible thereby reducing the security requirements. On 6 July, construction was initiated on a timber trestle, pile bent bridge 220 feet in length at (BS 789417). Company "A" received frequent sniper rounds through out the reporting period. On 16 July, one 60mm mortar round hit within the company perimeter, resulting in one WIA.

(6) Company "B": At the beginning of the reporting period, Company "B" was attached to the 19th Engr Bn. They remained at TUY HOA filling potholes and conducting daily mine sweeps of QL #1 from TUY HOA to the SON CAU River. On 17 May an operation was conducted to extract a platoon out of CUNG SON over an insecure road. This operation required the sweeping of forty-four kilometers of road. Using gunships for security and the insertion of sweep teams along the road at different points along the route, this operation was concluded without incident and ahead of schedule. On 19 May, Company "B" conducted a road march from TUY HOA to QUI NHON, a distance of approximately 100 kilometers. Upon arrival in the LONG LY VALLEY outside of QUI NHON, this unit assumed the mission of vertical and horizontal construction of an Aviation Depot. Large slabs of concrete were poured, steel PASCOE buildings were erected, crushed rock was hauled and a large DBST open storage area was constructed. On 21 June, Company "B" was alerted for movement to CHU LAI to rejoin the 39th Engr Bn, supporting TASK FORCE OREGON. This move was made by LST, closing into the battalion area on 21 June. Company "B" was assigned two combat support missions consisting of building two one-way tactical roads; one from (BS 658960) to (BS 638908) (Robertson Road) and the second road from (BT 480074) to BT(450028) (Market Road). Both roads were to be used by local nationals to transport food stuffs to market, but had to be capable of supporting Class 60 military loads for tactical operations. On 3 July, as the sweep teams rounded a bend on Robertson Road, they

discovered two VC's emplacing a mine. Firing an M-79, the point killed one of the VC's. On 24 July, while conducting mine sweep operations on Robertson Road, one platoon was ambushed resulting in four casualties, two DOW and two WIA. On 29 July, this platoon was again ambushed by the VC, resulting in one WIA. In all incidents on Robertson Road, tactical security was provided by the ROK Marines. On 30 July, Company "B" initiated support of Operation Hood River, which was to commence on 2 Aug. This support consisted of one platoon and two dozers to build an ASP at QUANG NGAI. This operation continued through the end of the reporting period. In addition, the company completed a number of miscellaneous projects in support of the TASK FORCE OREGON Base Camp.

(7) Company "C": On 1 May 1967, Company "C", 39th Engr Bn (Cbt) was located at NINH HOA, RVN (CP 986829) under the operational control of the 577th Engr Bn (Const). On 2 May 1967, they performed concrete stringer bridge with concrete gravity abutments was opened to traffic at site R-1S30 (CQ 023916). Projects underway in the 9th ROK Div Area and the maintenance responsibilities of Route QL #1 from DAI LAHN (CQ 243276) to NINH HOA were transferred to Company "A", 14th Engr Bn which replaced Company "C" at NINH HOA. After traveling to VUNG RO BAY the Company departed that location by LST on 10 May 1967 to join the 39th Engr Bn already committed to TASK FORCE OREGON. By 11 May the company had established its new Command Post with the 39th Engr Bn Base Camp just North of CHU LAI (BT 390725). During the period 11-24 May, the company engaged in the construction of defensive positions and general base camp revamping within the Battalion perimeter. Also, a total of 3,220 cubic yards of fill were hauled to the 163d Transportation Company area within the CHU LAI main perimeter for a laterite cap on a sand base in the motor pool area. On 24 May, the company mimis the 2d Platoon relocated to TU NGHIA (BS 669685) with the mission of reopening Route QL #1 South to HO DUC (BS 728533). When the unit moved into the area at TU NGHIA it was necessary to clear an ARVN minefield around the existing outpost in order to expand the existing defensive perimeter. By 28 May, twenty loads of fill had been hauled from a borrow pit at (BS 675682) to replace a dropped span of a three span French concrete bridge at site I - 1S2 (BS 673678), a 45 foot M4T6 dry span had been placed within a damaged Bailey bridge at I - 1S5 (BS 694636). In regard to I - 1S5, a 30 foot gap had been destroyed in the roadway with minor damage to the double-single panels. The southern 110' span of the 580' bridge had been partially reinforced in the weakened area by a modified double-double section. Local forces had previously welded transoms across the gap and covered them with PSP which met the needs of the nationals. In order to provide a roadway the 45' dry span was installed within the Bailey panels. While mine sweeping on 30 May, the 3d platoon was pinned down by sniper fire in the vicinity of (BS 724590) and 175mm Artillery was called in to aid in breaking contact. On 31 May, sniper fire was again received from the same area and after two airstrikes and Artillery preparations, the 1st and 3d platoons conducted a search and destroy mission with gunships overhead. During the ensuing six hours engagement four EM of Company "C" and one EM of the attached

Cavalry element were wounded. On 1 June, the 3d platoon moved to NUI DEP (BS 706610) to set up a new bivouac area. On 2 and 3 June, the remainder of the company moved to the new location. During the period 4-6 June, the 1st platoon destroyed the bunker, cave and tunnel complex in the vicinity of (BS 728599). The 2d platoon minus one squad rejoined the company at NUI DEP on 4 June. During a clearing operation on 5 June, two armored personnel carriers providing security hit mines killing three EM and wounding nine members of G Troop, 2/11 Cavalry Regiment. On 6 June, the bypass for bridge I - 1S11 was completed with the installation of two 36" culverts. The 1st and 2d platoons destroyed suspected sniper fortifications at (BS 723597) and (BS 718574) respectively without casualties. On 8 and 9 June, a M4T6 float bridge was constructed at I - 1S12 (BS 728556) to bypass a destroyed Eiffel bridge. During the period 11-14 June, a 90' double-single Bailey bridge was erected at I - 1S14 and joint hauling operation with Company "B", 103d, ARVN Engineer Bn opened the bypass at I - 1S13. Also while maintaining operations the company moved again to MO DUC closing into the area on 12 June. On 14 June, the ARVN Engineers at I - 1S16 just South of MO DUC (BS 742522). At that time the combined effort had met Company "A", 39th Engr Bn working North from DUC PHO and the road was open from CHU LAI to DUC PHO. Mine sweep teams were prepositioned along the road to facilitate clearing the road on the night of the 15th and the first convoy passed over the road on the 16th. On 17 June, the upgrading phase of bridge and culvert construction on QL #1 began and destroyed bridges were removed and sites prepared. On 30 June, the road at I - 1S10 (BS 724570) was opened after replacing the destroyed bridge with four 72" culverts and sandbag headwalls. On 30 June, while returning from the daily ration run to DUC PHO, an APC in the convoy was the target of a command detonated mine (BS 773458). The mine was set off prematurely four feet in front of the track and threw one man from the vehicle inflicting possible hip injuries. On 2 July, while working at Bridge I - 1S11 (BS 726564), the first platoon received approximately twenty rounds of automatic weapons fire which killed one EM and wounded another in the shoulder. The following day the abandoned village where the sniper fire originated was destroyed. Work on the MO DUC Airfield was initiated on 3 July; the strip being 2000' long to accommodate C-123 traffic on a treated soil surface. By 8 July, a twenty foot timber span had been constructed at I - 1S9 with pile supported abutments. At approximately 0200 hours, 14 July, the southern span of Bridge I - 1S5 (BS 694636) was destroyed by the Viet Cong. A twenty foot hole had been blown in the M4T6 dry span which had been installed to provide the roadway. A passable ford was completed by noon on the 14th using rock in the stream bed and laterite to cap the sand. On 15 July, two squads of the second platoon were relocated to (BS 706610) with the mission of removing and reconstructing I - 1S5. The Bailey bridge was in such poor condition that the entire 580' bridge was removed and will be replaced by new Bailey. The existing piers were under cut by the flowing water and required reconstruction. Disassembly of the bridge was completed on 25 July and the formwork for a new concrete pier on the southern span was initiated. As of 31 July the MO DUC Airfield is 95 percent complete;

lacking a final surface treatment. A total of 54,480 cubic yards of earth were moved to level the strip. At bridge I - 1S11 five 60" culverts have been installed and sandbag headwalls completed on the upstream side. During the reporting period it was the responsibility of Company "C" to mine sweep QL #1 from bridge I - 1S5 to a point South of MO DUC where the mine sweep team of Company "A" was met moving North.

(8) Company "D": At the beginning of this reporting period, this unit was located at LZ Eagles Nest. From 1 May 1967, they constructed two each 40' timber trestle bridges, Class 52, placed 300' of culvert, a 300' x 500' heliport and three miles of road at LZ Guadalcanal. During the period of 22 May 1967 to 18 July 1967, they administered an AIC project, "Operation Rock", hired two-hundred to four-hundred local nationals daily to produce rocks, paying them ten piasters per bag. Company "D" constructed an ammunition supply point at LZ Montezuma during the period 7 June to 20 July, hauling an estimated 88,000 yards of fill for this project. On 12 June, Company "D" relocated to LZ Montezuma and assumed responsibility of airfield maintenance and pioneer opening of QL #1 South from DUC PHO to the I Corps boundary. Opening of the road, required the construction of seven culverts, four bypasses, one timber bridge and the filling of numerous craters in the roadway. The pioneer road opening was completed to the I Corps boundary on 8 July 1967. On 17 July 1967, Company "D" began removal of overburden at a new quarry site at (BS 821347). During the period of this report, this unit excavated, hauled and emplaced 138,530 yards of earth fill, and were involved in nine enemy contacts to include six platoon size night ambush patrols. Company "D" exploded six mines resulting in four KIA's and twelve WIA's.

(9) 554 Engineer Company (Float Bridge): At the beginning of the reporting period the 554th Engr Co (FB) (minus) had just been relocated on Hill #35, North of the CHU LAI Airfield. In being relocated the 554th Engr Co (FB) was attached to the 39th Engr Bn (C). On 24 April 1967, the company arrived and was given the mission to supply the tactical bridging and also general cargo hauling. Arriving with the company, one platoon of the 509th Engr Co (FB) was attached with the capability of constructing an 80' double-single Bailey bridge. On 3 May 1967, the 1st bridge platoon erected a five float raft at the North end of AN TAN (BT 498068) in order to ferry heavy equipment across the SONG AN TAN. The platoon was also given the mission for maintenance and security of the ferry. On 19 May 1967, the 1st bridge platoon constructed a five float raft on the SONG TR BONG located at (BS 597927) in the vicinity of BINH SON for ferrying a 70 ton crane and lowboy across to the North side of the river. However, the water depth at this time prevented the use of the bridge erection boat so two 5 ton bridge trucks with winches were used to pull the raft from one bank to the other. After the crossing was completed the raft was disassembled and loaded back on the trucks. On 27 May the 1st bridge platoon along with an element from "C" Company, 39th Engr Bn (C) erected a 45' dry span at coordinates (BS 694636), over one span of partially destroyed panel

bridge. On 29 May 1967, the 1st bridge platoon along with elements of "C" Company, 39th Engr Bn (C) erected a 38'4" dry span at the bypass at (BS 692646). On 3 June 1967, elements of "C" Company, 39th Engr Bn (C) along with the 1st bridge platoon of the 554th Engr Co (FB) erected a seven float bridge at (BS 728556). At this location two existing damaged bridges made the erection of the float bridge very difficult. On 6 June 1967, a 90' double-single panel bridge was constructed by the 1st platoon of the 509th Engr Co (PB) and elements of "C" Company, 39th Engr Bn (C) at (BS 736533), the roadway width also caused complications since the roadway had to be widened from 13'6" to the required 14'10". On 25 June 1967, a five float raft was again constructed on the SONG TRA BONG at (BS 597927) to be left in place so as to ferry heavy traffic both North and South. The company still has the mission of operating and maintaining the ferry. The company has supported the 196th Infantry Brigade with 25 HP outboard motors, LTR half pontoons, and engineers to patrol the waters located in the CHU LAI, LST Bay area. During the reported period the Company has furnished general cargo hauling support to the 39th Engr Bn (C), the 9th Marines Engr Bn and other TASK FORCE OREGON units. On 20 June 1967, much of the bridging equipment belonging to the 4th platoon was destroyed by an ASP fire at Guadalcanal.

b. TRAINING: During the reporting period the Battalion worked 6½ to 7 days a week. Depending on the situation, Sunday morning was for Church services, CI Classes and maintenance of equipment.

c. MOVEMENT: Elements of Headquarters & Headquarters Company and the 554 Engineer Company (FB) moved by LST from DUC PHO to CHU LAI on 15 June 1967. Company "B" departed QUI NHON on 21 June 1967 by LST for CHU LAI arriving on 21 June 1967. There were no major problems encountered in any of the moves.

d. SUPPLY:

(1) During the reporting period, support was received from the following organizations:

(a) TASK FORCE GALLAGHER - All Class I, III & V supplies, expendable Class II and Class IV construction and barrier material.

(b) QUI NHON SUB-AREA COMMAND - All Class II & IV not available in TASK FORCE GALLAGHER.

(2) At the beginning of the reporting period the line companies of the battalion were supported as follows:

(a) Company "A", located at DUC PHO: Received all supplies from battalion.

(b) Company "B", located at QUI NHON was not receiving support from the Battalion at that time.

(c) Company "C", was supported in the following manner:

1 Classes II, III, IV supplies were drawn from 15th Support Brigade and 80th Support Group while at CHU LAI.

2 While at NUI DEP all supplies airlifted from CHU LAI.

(d) Company "D", located at DUC PHO: Received all supply from Battalion.

(3) At this time the resupply of the companies has changed, due to the moving of the Battalion Headquarters to CHU LAI. The means of resupply are now as follows:

(a) Company "A", located at DUC PHO: Received all supplies by unit pickup from FSA, TASK FORCE GALLAGHER.

(b) Company "B", located at CHU LAI: Received all supply from Battalion.

(c) Company "C", located at MO DUC: Received supplies by unit pickup from FSA, TASK FORCE GALLAGHER.

(d) Company "D", located at DUC PHO: Received all supplies by unit pickup from FSA, TASK FORCE GALLAGHER.

(4) 554 Engineer Company and One Platoon of the 509th located at CHU LAI:

(a) Class I - Unit delivery by battalion.

(b) Class II, III, IV and V - 94th S&S Bn, 15th Support Brigade.

(5) The battalion received its supplies through FSA, TASK FORCE GALLAGHER till moving to CHU LAI. Battalion now receives supplies through the supporting units of TASK FORCE OREGON.

(5) Availability of all Classes of supplies improved considerably during this reporting period.

(7) The availability of Class II/IV supplies aided the Battalion in accomplishing its mission.

(8) A number of major equipment shortages existed in this Battalion. The lack of these affected the operation capability of the unit. The shortages were as follows:

(a)	1/4 Ton Truck	1 each
(b)	3/4 Ton Truck	1 each
(c)	10 Ton Truck Tractor	2 each
(d)	20 Ton Crane-Shovel	1 each
(e)	25 Ton Semi-Trailer	1 each
(f)	Scoop Loader	7 each
(g)	250 CFM Air Compressor	1 each
(h)	Welding Set	1 each
(i)	10 KW Generator	2 each

e. MEDICAL:

(1) The Battalion Aid Station has the mission of conserving fighting strength and building personnel strength at a unit level. Sick call is held daily in the morning but the station is open 24 hours a day for emergencies. It is capable of caring for the majority of illnesses occurring within the Battalion except for diseases requiring more sophisticated method of diagnosis or injuries requiring more than minor surgery. In this event we evacuate the patients to 2d Surg Hospital located in the CHU LAI cantonment area.

(2) The Battalion has been on Dapsone for the past five months and since that time has had only one case of Malaria (Plasmodium Vivax). With the advent of the coming season it will be necessary to re-stress the employment of personnel prevention of Malaria, such as; sleeves down after dark, mosquito nets and the use of insect repellent.

(3) Sanitation has remained at an good level within the last quarter, and improvement is made by a weekly inspection. It is also the Aid Stations responsibility to keep the men up to date on their immunizations. The policy of the staff going to the companies to give required shots rather than having the individual report to the Bn facility has resulted in a higher percentage (90%) with respect to up-to-date immunizations.

f. MAINTENANCE:

(1) During the reporting period the 39th Engr Bn was supported by a contact team, consisting of one NCO and ten EM, from the 136th Light Equipment Maintenance Company. The contact team provided the capability required for maintenance, but no repair parts.

(2) During this reporting period units located at DUC FHO were to be supported by the 725th Maintenance Company. This was a mistake as the support Company had no materials covering engineer equipment and all requisitions had to be forwarded to the 188th Maintenance Battalion at CHU LAI. When repair parts did come through, the 725th Maintenance Company had no knowledge of who the parts were for as the requisitions numbers belonged to the 188th.

(3) During the reporting period, units located in CHU LAI area placed all requisitions direct to the 188th and some parts are beginning to come through.

(4) This battalion has been augmented with a 75 TPH Eagle Rock Crusher during this reporting period. This is a new machine, but apparently has been in storage for sometime. Most of the seals and a head gasket have had to be replaced.

g. CASUALTIES:

	KIA	WIA	DOW
(1) Headquarters & Headquarters Company	0	0	0
(2) Company "A"	0	2	0
(3) Company "B"	0	5	2
(4) Company "C"	2	10	0
(5) Company "D"	1	9	0
(6) 554 Engr Co (FB)	0	0	0

h. MINES: During the period of this report, this battalion discovered 60 mines, detonating 12 of these accidentally. Most of these mine consisted of a bamboo firing device, with an electric blasting cap and approximately 20 pounds of explosive. Seldom were these mines marked in any way. The following is a breakdown by month of these mines found:

MONTH	DETECTED	DETONATED	TOTAL
May	3	3	6
June	29	6	35
July	16	3	<u>19</u>
			60

1. BOOBY TRAPS: During the period of this report, this battalion discovered 31 booby traps, detonating 8 accidentally. Most of the booby traps consisted of hand grenades and trip wires connected to the pin. The following is a monthly breakdown of those found:

MONTH	DETECTED	DETONATED	TOTAL
May	8	5	13
June	10	1	11
July	5	2	<u>7</u>
			31

Section 2, Part I, Observation (Lessons Learned)

1. PERSONNEL:

a. Item: Reduction of casualties on mine sweep operations:

Discussion: During two (2) recent mine sweeping operations, a 5 ton dump following the team was destroyed with no casualties incurred because the vehicles were being operated in reverse.

Observation: By backing 5 ton dump trucks loaded with fill, the possibility of becoming a casualty of an undected mine is negligible. Other benefits derived by backing the vehicles, is that the vehicle is already in position to dump its fill in a crater caused by purposeful detonation of a mine in the roadway.

2. OPERATIONS:

a. Item: Moving into previously occupied area:

Discussion: When required to move into a previously occupied area it was found that the perimeter area contained mines, grenades and other anti-intrusion devices, many equipped with anti-lift devices. No charts could be found to show the location of these devices.

Observation: It became necessary to clear the vegetation for fields of fire and personnel were unnecessarily exposed to danger, because these devices were not recorded. The devices that were located were placed in a haphazard way with little or no thought given to their use as warning or channelizing devices.

b. Item: Breaching ARVN minefield:

Discussion: One unit was required to clear a minefield which had been installed by the ARVN's. A layout of the field was furnished complete with markings, types and boundaries.

Observation: Upon embarking on the breaching of the minefield, composed entirely of M-16 mines, it was discovered that the field had not been laid out in the French arrangement as shown in the report. Mines were located up to thirty (30) meters outside the boundary fence.

c. Item: Detection of Command Detonated mines:

Discussion: During recent incidents that this unit has experienced, it was found that there has been an increased use of the command detonated mines. When made from bamboo or burlap, no metal being used, and buried at an increased depth, detection of these mines has become increasingly difficult.

Observation: The enemy has used command detonated mines to great effectiveness. Without metal being used in the construction, these mines can only be discovered by the use of the probe or find the wire leading the emplacement or firing sight.

d. Item: Mine over Culverts:

Discussion: Recent incidents indicated that the unpaved fill over culverts is a favorite target for VC mines.

Observation: The mine is relatively easy to emplace and camouflaged in such a location and as the culverts are made of metal interferes with the reading on the mine detectors. A bonus effect is the destruction of the culvert as well as vehicles and personnel.

3. MAINTENANCE:

a. Item: Leaky Coupling on Bucket Loader:

Discussion: This unit has had considerable trouble with leaky couplings on the bucket of the HPCM bucket loader. This caused by heavy objects, such as rocks, that spill over the top of the bucket while loading. As these objects fall, they bend the lines and couplings and will break the filling.

Observation: By closer operator inspection, this problem can be limited and by proper alignment of these lines by the mechanic, this problem can be eliminated.

b. Item: Fuel tanks on Clark 290M's:

Discussion: The fuel and hydraulic tanks on the Clark 290M's are located too close to the outside of the tractor.

Observation: The tanks are the first part of the tractor damaged when the tractor is sideswiped. Rock and trees in the path of the 290, bounce off the wheels and damage the tanks. In addition, the steps to the operator's seat are welded to the tank and are a point of weakness. These tanks should be relocated on future models or covered with a protective shield.

c. Item: Use of Scarifier Teeth on Dozers:

Discussion: High incidents of end hit breakage and excess cutting edge wear has occurred on the D7E dozers.

Observation: Investigation reveals that operators are not using their scarifier teeth on the dozer blades. This causes excess wear to the cutting edges and end bits. Early observations indicate that using scarifier teeth reduces the wear, and increases production.

4. COMMUNICATIONS:

a. Item: **Handsets and Microphones:**

Discussion: A broken or defective handset or microphone usually cannot be repaired and must be DX'ed. Replacements usually take a month or more to come in resulting in a deadlined piece of equipment.

Observation: Use the hooks provided to hang the equipment on to keep it from being broken, stepped on or dropped when not in use.

5. LOGISTICS:

a. Item: Resupply of Oxygen and Acetylene:

Discussion: This unit has been required to use more oxygen and acetylene than normal. This was due to the construction of pile piers for bridges.

Observation: This unit has been unable to obtain a ready resupply of acetylene or oxygen through normal supply channels. Resupply levels have been exhausted. During normal operations the supply was sufficient, but the use in construction has depleted this supply.

b. Item: Flood Light Sets:

Discussion: This unit has been required to operate on a 24 hour basis for construction of Airfields. It has been difficult as there are no lighting sets authorized to this battalion.

Observation: Many construction projects require lighting for nighttime operations. At the present time, without lighting sets, the only illumination available is that furnished by vehicle lights. This has proven to be ineffective and production has fallen behind.

Section 2, Part II, Recommendations:

1. PERSONNEL:

a. Recommend that loaded 5 ton dump trucks following mine sweep teams, be operated in reverse.

2. OPERATIONS:

a. Recommend that departing units be required to furnish the local real estate officer an accurate diagram of anti-intrusion and booby trapped devices around the perimeter.

b. Recommend that when clearing ARVN emplaced minefields, that extreme caution be used even in the area outside the boundary wire.

c. Recommend that units sweep ditches on fields along roadway in an effort to detect command wires. This may also be done with a plow or a pick.

d. Recommend that filled area covering culverts, be covered with crushed rock and asphalt to make placement and camouflage of mines more difficult.

3. MAINTENANCE:

a. Leaky couplings on bucket loader, recommend that particular attention be given to the proper alignment of hydraulic lines.

b. Fuel tanks on Clark 290M's should be relocated or covered with a protective shield.

c. Recommend that dozer operators be instructed in the use and advantages of using the scarifier teeth mounted on the dozer blade.

4. COMMUNICATIONS:

a. Recommend that emphasis be placed on using hooks to keep equipment from being stepped on.

b. Recommend that emphasis be placed on care and cleaning of cooling fans and heat exchanges.

5. LOGISTICS:

a. Recommend that sufficient industrial gases be stocked in forward support area.

b. Recommend that combat engineer battalion be issued a ~~minimum~~ of one (1) each flood lighting set per company.

J.F. CASTRO
LTC CE
Commanding

DISTRIBUTION:

CO, 45th Engr Gp (Const)	10
CINCUSARPAC	2
CG, USARV	3
CG, 18th Engr Bde	15
CG, TASK FORCE OREGON	10

AVDF-GC (15 Aug 1967) 1st Ind
SUBJECT: Operational Report-Lessons Learned (RCS-CSFOR-65) for quarterly
Period Ending (15 August 1967)

DEPARTMENT OF THE ARMY, HEADQUARTERS TASK FORCE OREGON (PROVISIONAL), APO
San Francisco 96374, 16 September 1967

TO: Assistant Chief of Staff for Force Development, Department of the Army
(ACSFOR, DA), Washington D. C. 20315

1. Attached are two copies of subject report of the 39th Engr Bn
(Combat).

2. Reference para 5, Section 2, Part II:

a. Availability of industrial gases has improved considerably.
Direct exchange has been established by the Task Force Support Command and
revised stockage levels initiated by the Navy Support Detachment, CHU LAI,
RVN.

b. The 39th Engr Bn is initiating MTOE action for authorization
of one floodlighting set per company.

FOR THE COMMANDER:

2 Incl
as

O. A. GERNER JR
CPT, AGC
Asst Adj Gen

AVBC-C (15 Aug 67)

2nd Ind LT Hegmann/cky/DBT-163

SUBJECT: Operational Report--Lessons Learned For the Quarterly Period
Ending 31 July 1967

Headquarters, 18th Engineer Brigade, APO US Forces 96337 28 August 1967

TO: Commanding General, U. S. Army Engineer Command, Vietnam (Prov),
ATTN: AVCC-P&O, APO US Forces 96491

1. This headquarters has reviewed the report submitted by the 39th Engineer Battalion and considers it an excellent report of unit activities and accomplishments for the period ending 31 July 1967.

2. This headquarters concurs with the observations and recommendations of the Battalion Commander with the following additional comment:

Section 2, Part II, paragraph 2.d.--Strongly concur with the recommendation that all repairs on asphalt roads should be made with a crushed rock and asphalt application.

HAROLD J. ST CLAIR
Colonel, CE
Commanding

AVCC-P&O (15 Aug 67)
SUBJECT: Operational Report--Lessons Learned for the Period Ending
31 July 1967

3d Ind

CPT Whitley/dmr/4750

HEADQUARTERS, UNITED STATES ARMY ENGINEER COMMAND VIETNAM (PROV), APO 96491

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

This headquarters concurs with the 39th Engineer Battalion's ORLL report, as modified by indorsement, subject to the following comments:

1. Reference Section 1, paragraph d(8), page 7:

a. The $\frac{1}{4}$ -ton trucks and 10 KW generators are now available. Action is being initiated to have these items released by the Qui Nhon Support Command. 10-ton truck tractors are scheduled for arrival in-country in the immediate future. 25-ton semi-trailers are not available for issue. Request for current status of unit requisitions has been forwarded to LCOP. No reply has been received to date.

b. 1st Logistical Command has released one 20-ton crane-shovel and 6 each frontloaders to fill TOE shortages.

c. The remaining shortages are currently not available from in-country assets. No lift data is currently available.

2. Reference Section 2, Part I, paragraph 3b, page 12: Nonconcur. Overall width of the basic tractor is 120 inches when operated in the normal manner; with the blade installed the overall width is 136 inches. The location of the tanks are well within the 120 inch width of the basic tractor. However, a study will be made by this headquarters to determine if similar damage is being sustained by other units operating under similar conditions and appropriate recommendations will be made.

3. Reference Section 2, Part I, paragraph 5a, page 13: Information made available to this headquarters by 1st Logistical Command indicates no apparent problem in supply of oxygen-acetylene from the Cam Ranh Bay depot to the Americal Division, to which the 39th Engineer Battalion is attached.

AVCG-P&O (15 Aug 67)

SUBJECT: Operational Report--Lessons Learned for the Period Ending 31 July 1967

The problem appears to be the turn-around time involved when empty bottles are sent in for the return of full ones. The solution of this problem is within the scope of the support echelons of the Americal Division.

FOR THE COMMANDER:

Cys Furn:

CG, 8th US Army, ATTN: Engr

CG, 18th Engr Bde

CO, 45th Engr Gp

CO, 39th Engr Bn

PAUL A. LOOP

Colonel, CE

Chief of Staff

AVHGC-DST (15 Aug 67) 4th Ind
SUBJECT: Operational Report-Lessons Learned for the Period Ending
31 July 1967 (RCS CSFOR-65) (U)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96375

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

1. (U) This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 July 1967 from Headquarters, 39th Engineer Battalion (Combat) (Army), Task Force Oregon (AZ6A) as indorsed.

2. (FOUO) Pertinent comment follows: Reference item concerning oxygen and acetylene supply, page 13, paragraph 5a, and 3d Indorsement, paragraph 3: Concur with 3d Indorsement, paragraph 3. This headquarters is not aware of any shortage of oxygen or acetylene. Unit should increase the amounts requested based on demand and consumption experience.

3. (U) Unit will be notified of actions and comments by routine indorsement which returns this report.

FOR THE COMMANDER:

GPOP-DT (15 Aug 67)

5th Ind

SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1967
from HQ, 39th Engineer Battalion (UIC: WAZ6AA)(RCS CSFOR-65)

HQ, US ARMY, PACIFIC, APO San Francisco 96558

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

This headquarters has evaluated subject report and forwarding indorse-
ments and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

HEAVRIN SNYDER
CPT, AGC
Asst AG