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AGAM-P (M) (5 Aug 68)   FOR OT RD 682318   15 August 1968

SUBJECT: Operational Report - Lessons Learned, Headquarters, 34th Engineer Group (Const), Period Ending 30 April 1968 (U)

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Dep. Chief of Staff for Force Development. DA, Wash, D.C. 20310

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2. Information contained in this report is provided to insure that the Army realizes current benefits from lessons learned during recent operations.

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BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

1 Incl
as

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS 34TH ENGINEER GROUP (CONST)
APO San Francisco 96291

EGF-OP 1 May 1968

SUBJECT: Operational Report of HQ 34th Engineer Group (Const) for Period Ending 30 April 1968, RCS CSFOR-65(R1)

TO: Commander-in-Chief
US Army Pacific
ATTN: GFOP-DT
APO 96558

Commanding General
US Army Vietnam
ATTN: AVHGC-DST
APO 96375

Commanding General
20th Engineer Brigade
ATTN: AVBI-OS
APO 96491

1. Section 1, Operations: Significant Activities

a. Command:

(1) During the reporting period, Headquarters 34th Engineer Group (Const) remained located at Vung Tau, South Vietnam (YS 287463). The major activities of the Group included: operational support to Second Field Force Vietnam (II FFORCEV) and IV ARVN Corps, road and bridge upgrading (LOC's), providing minimum essential requirements (MER) to incoming and relocated units, base construction, quarry operations, and supporting the Revolutionary Development Support Program.

(2) COL Joe M. Palmer continued to command the Group through 5 Mar. COL William A. Stewart assumed command of the Group on 6 Mar.

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(3) Organization Structure:

(a) On 5 Apr 68 the 27th Engr Bn (Cbt) and the 591st Engr Co (LE) were reassigned from the 34th Engr Gp to the 18th Engr Bde.

(b) On 25 Apr 68 the 31st Engr Bn (Cbt) was assigned to the Group. The 31st Engr Bn deployed from Fort Bliss, Texas and arrived in Vung Tau Harbor on 24 Apr 68 aboard the USNS Barrett. The 31st Engr Bn HQ is located at Camp Blackhorse (YS 437969).

(c) The 34th Engr Gp organization chart as of 30 Apr 68 is attached as inclosure 1.

(4) Area of Responsibility: The Group area of responsibility (AOR) was changed slightly by the expansion of the 159th Engr Gp AOR in the Bear Cat area (vic YS 165999). Inclosure 2 portrays the current Group AOR.

b. Personnel, Administration, Morale and Discipline:

(1) At the end of the reporting period the strength was:

	O	WO	EM	TOTAL
AUTH	206	36	5135	5377
ASGD	212	31	4735	4978

(2) During the reporting period the Group rotated approximately 23% of total authorized strength. A few severe shortages developed in some skill areas. The following list indicates the critical personnel shortages as of 30 Apr 68:

GRADE	JOB DESCRIPTION	MOS	AUTH	ASGD
E6 & E7	Engr Equipment Maint	62B40	26	19
NCO E6	Const Sqd Ldr	51H40	59	27
NCO E7	Const Plt Sgt	51H40	36	21
NCO E7	Quarry Supervisor	62G40	5	0
NCO E6	Supply Sgt	76Y40	26	15

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GRADE	JOB DESCRIPTION	MOS	AUTH	ASGD
NCO E5	Commo Sgt	31G40	4	2
SP4 E4	Electrician	52F20	113	71
SP4 E4	Plumber	51K20	112	72

(3) Some personnel turbulence was experienced during the reporting period as a result of the transfer of the 27th Engr Bn and the 591st Engr Co (LE) from the 34th Engr Gp on 5 Apr 68. There were approximately 100 personnel in these two units with an April date eligible return from overseas (DEROS). Priority on fill of officer and enlisted personnel was given the 27th Engr Bn and the 591st Engr Co (LE) in March so they would be at 95% of authorized strength at time of departure from the Group.

(4) An aggregate of over 2350 personnel changes occured during the reporting period. During April, enlisted personnel were transferred between Group units to correct rotational hump problems. Additionally, the 31st Engr Bn arrived from CONUS and joined the Group during the period. Plans were prepared to infuse the newly arrived 31st Engr Bn with other Group units to correct their rotational hump.

(5) 182 personnel extended their foreign service tours during the period.

(6) The following awards were presented to 34th Engr Gp personnel:

MEDALS

Silver Star	1
Legion of Merit	3
Air Medal	5
Bronze Star Medal with "V" for Valor	16
Bronze Star Medal for Achievement/Service	42
Army Commendation Medal with "V" for Valor	18
Army Commendation Medal for Achievement/Service	164

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MEDALS	NUMBER AWARDED
Purple Heart	39
Certificate of Achievement	130

(7) The following enlisted promotions were made during the reporting period; to: E7 - (1), E6 - (16), E5 - (394), E4 - (571).

(8) A daily average of 804 Local National Permanent Hire personnel were paid a total of 15,613,555 $VN during the period for work on projects throughout the Group AOR. A daily average of 299 Local National Daily Hire unskilled personnel were paid a total of 2,304,155 $VN for more menial tasks. Both categories continued to serve a useful function by relieving military personnel for more specialized tasks.

(9) Special attention was given the overall Group career counseling and reenlistment program. A full time career counselor was assigned to the 34th Group. Emphasis on the reenlistment program resulted in the Group meeting the DA goal of 33.3% of 1st term RA personnel for February, March and April.

(10) During the TET offensive, it was in some instances impossible to obtain a Catholic Chaplain to give Last Rites to Catholic personnel killed in action, and in other cases it was impossible to bring in a Protestant Chaplain to give religious ministration to Protestant soldiers killed in action. In an effort to preclude any futher occurance of a soldier dying without religious ministrations, Emergency Prayer Cards (Incl 3) were prepared for the Jewish, Catholic and Protestant Faiths and distributed to company commanders and platoon leaders, who may, upon request, repeat with the dying the appropriate prayers of their faith or arrange for this to be accomplished.

(11) No unusual disciplinary problems developed or were experienced during the reporting period.

c. Intelligence and Counter Intelligence: The chief sources of intelligence information concerning enemy activity continued to be II FFORCEV PERINTREPs and INTSUMs and the USARV Weekly Combat Intelligence and Security Review. During April 1968, additional intelligence summaries were obtained from 9th US Inf Div, Senior Advisor IV ARVN Corps Tactical Zone, and Phouc Tuy Province Sector Headquarters. This information was supplemented by intelligence obtained by direct liaison between the Group's battalions and local tactical units having area responsiblity.

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Group HQ remained physically located in the Vung Tau Sub-Area. The 53d GS Group, responsible for the overall defense of the sub-area, provided intelligence summaries for the local area. Engineer reconnaissance of LOCs and planned project sites continued to be on an as-required basis.

d. Plans, Operations and Training:

(1) Operational Support:

(a) During the period, 53% of the total Group effort was expended on operational support missions. There continued to be three basic types of operational support missions:

1 Direct support of combat operations.

2 Deliberate construction to support future operations.

3 Troop and equipment support to MACV and II FFORCEV units for construction and maintenance of existing roads, airfields and other facilities.

(b) Operation Enterprise, conducted by the 9th US Inf Div in Long An Province, continued into the reporting period. The 86th Engr Bn (Cbt) continued to provide engineer support to the operation. The effort consisted primarily of maintenance of MSRs and access roads. All Group engineer effort for Operation Enterprise was deferred on 16 Mar 68. Although not officially designated a part of Operation Enterprise, the rehabilitation of Ben Luc Fire Support Base (XS 633761) by a Group unit was associated with the operation. The engineer effort at Ben Luc is described in paragraph 1d(1)(n)6.

(c) Operation Manchester of the 101st US Abn Div was supported by the 86th Engr Bn (Cbt) Land Clearing Team in an area north of Tan Uyen (XS 950275). The operation began 23 Jan 68 and was completed on 6 Feb 68. 766 acres were cleared. The latter portion of this clearing operation was designed to deny cover and concealment to the VC during the TET offensive.

(d) Operation Rooster: This land clearing operation was conducted by the 86th Engr Bn (Cbt) in support of the 199th U. Lt Inf Bde. The clearing took place in the Long Binh - Bien Hoa complex area (YT 040140). The operation began on 31 Jan 68 and finished on 22 Feb 68 and cleared 4,699 acres. The primary purpose of this operation was to deny cover and concealment to the VC during the TET offensive.

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(e) Operation Plantation: The 86th Engr Bn (Cbt) Land Clearing Team was place OPCON to 79th Engr Gp for a 6 day operation at Long Binh (YT 050070) which began 31 Jan 68 and finished 6 Feb 68. 897 acres were cleared. The primary purpose of this operation was to deny cover and concealment to the VC during the TET offensive.

(f) Operation Light: The 86th Engr Bn (Cbt) supported the 1st US Inf Div in the vicinity of Ben Cat (XT 740330) with one-third of the battalion's Land Clearing Team. The operation began 3 Mar 68 and finished 9 Apr 68 with 3,499 acres being cleared.

(g) Operation Mallard I: The 86th Engr Bn (Cbt) supported the 199th US Lt Inf Bde on this land clearing operation. A total of 2,500 acres were cleared along the Mallard Road, located between Long Binh (YT 050070) and Bear Cat (YT 165000). The operation began on 4 Mar 68 and finished on 21 Mar 68.

(h) Operation Mallard II: On this land clearing operation, the 86th Engr Bn (Cbt) supported the 11th Armored Cavalry Regiment by clearing selected areas along QL 1 between Long Binh (YT 050070) and the junction of QL 1 and LTL 2 (YT 437048). The operation began 22 Mar 68 and finished 17 Apr 68 with 1,575 acres being cleared.

(i) Operation Finnaroo: On this operation, the 36th Engr Bn (Const) organized a five plow land clearing team task force to support the 1st Autralian Task Force in clearing selected areas near the Long Hai Mountains (YS 460550) The operation began on 1 Apr 68 and 1,020 acres were cleared by the end of Apr 68.

(j) Operation "Duong Cua Dan" (People's Road): On this operation, the 86th Engr Bn (Cbt) continued to support the 9th US Inf Div by upgrading National Highway QL 4 between My Thuan Ferry Landing (WS 985358) and the My Tho junction with LTL 6A (XS 470478). This mission is desribed in more detail in paragraph 1d(2)(d)1 of the Lines of Communications section of this report.

(k) Tactical Tree Crusher Operations: The 93d Engr Bn (Const) provisional Tree Crusher Detachment continued to support the 9th US Inf Div until 4 Apr 68 when both tree crushers were deadlined for cracked welds. A total of 842 acres in the Long Binh (YT 050070) and Binh Son (near Long Thanh) (YS 210940) areas were cleared. The lease of the two tree crushers expired on 30 Apr 68 and the crushers were returned for shipment from Vietnam

(l) Airfields: The 34th Engr Gp worked on eight deliberate operational support airfields during the reporting period:

1 Xuan Loc airfield(YT 460080) was upgraded from Type II, C-123 capability to Type III, C-130 during the previous reporting period. Construction of a parking apron was initiated and was 50% complete on 30 Apr 68. The apron design required a laterite base surfaced with a double bituminuous surface treatment (DBST)

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2 Long Giao Airfield (YS 435965): A 150' x 900' parking apron was under construction at this airfield. Half of the apron was completed, consisting of a laterite base surfaced with a DBST.

3 Long Hai Airfield (YS 430520): The 86th Engr Bn (Cbt) completed the upgrading of an existing 1,500 foot sand-cement runway to a Type II, C-123 airfield. Design of the new runway required M8A1 matting overlaying asphalt stabilized sand.

4 Ham Tan Airfield (YS 990840): The 36th Engr Bn (Const) completed constructing a Type III, C-130 airfield parking apron of laterite base surfaced with a DBST.

5 Can Tho Airfield (WS 840110): The 69th Engr Bn (Const) continued to replace the deteriorated PSP runway with a runway consisting of asphalt stabilized sand overlayed with M8A1 matting designed for Type III, C-130 capability. Two thousand seven hundred feet were completed by 30 Apr 68.

6 Vi Thanh Airfield (WR 530825): The 69th Engr Bn (Const) continued to rehabilitate the existing airfield by placing a sand asphalt seating layer overlayed with M8A1 matting, to form a Type III, C-130 airfield. The airfield originally consisted of a gravel surface overlaying a rice paddy clay, soil sub-base. The fines were removed from the gravel by wind and water erosion resulting in rough cobble-like surface. Transportation of the required construction materials and equipment by water was delayed by enemy activity in the area during and following the TET offensive, and the lack of an adequate security force for barge and LCM convoy protection. A single sand bituminous surface treatment was applied as an interim solution to maintain a usable airfield. Delivery of materials and equipment to the project site in April permitted start of the designed rehabilitation of the airfield.

7 Ben Duc Airfield (XS 475450): The 86th Engr Bn (Cbt) began to upgrade the existing 1,500 foot laterite capped airfield to Type II, C-123 capability on 16 Apr 68. The original runway consisted of rice paddy clay fill. The finished runway was for a surface of M8A1 matting overlaying a lime stabilized clay base and a sand asphalt sealing course. This was the first use of the clay/lime technique by a 34th Engr Gp unit to rehabilitate an airfield.

8 Luscombe Airfield (YS 435685): Upgrading the existing Type I, C-130 airfield to a Type II, C-130 capability continued by the 36th Engr Bn (Const) in support of the 1st Australian Task Force. The finished airfield design was for a laterite base, surfaced with a DBST.

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9 Ben Tre Airfield (YS 480350): Plans were still being prepared on 30 Apr 68 to upgrade this airfield to C-130 capability.

(m) Cau Muong Chuoi Bridge (XS 893800): The 86th Engr Bn (Cbt), supported by the 536th Engr Det (PC), completed the rehabilitation of a 350 foot Eiffel Bridge on 10 Apr 68. Work during this period included finishing the underwater bracing, capping the piles, installing mine barriers, placing the spans, decking, and finishing the abutments.

(n) Miscellaneous Construction and Maintenance Projects in support of MACV and II FFORCEV units included:

1 Long Hai (YS 436520): Elements of the 86th Engr Bn (Cbt) continued to provide technical assistance to the 5th Special Forces in vertical construction.

2 Nui Chua Chan (YT 600100): Elements of the 27th Engr Bn (Cbt) finished the mess hall rehabilitation for the mountain top signal facility. The installation of the water distribution system was in the final stages of completion at the end of the reporting period.

3 Can Tho (WS 840110): Elements of the 69th Engr Bn (Const) continued to construct a perimeter road of rice paddy clay around the Can Tho Airfield. Three thousand feet of lime stabilized roadway were constructed during the reporting period.

4 Ap My Dien (XS 360600): Elements of the 69th Engr Bn (Const) constructed protective berms in support of 5th Special Forces.

5 Xuan Loc (YT 460084): Elements of the 27th Engr Bn (Cbt) constructed protective berms in support of a MACV Advisor Team.

6 Ben Luc Fire Support Base (XS 640755): Elements of the 86th Engr Bn (Cbt) continued rehabilitating the fire support base. The project included relocating a berm, providing drainage and rehabilitation of the road network by lime stabilization. Ninety seven percent of the project was completed by the end of this period.

7 Cau Lanh (WS 700550): Elements of the 69th Engr Bn (Const) constructed MER facilities and assisted in the construction of a protective berm in support of the 44th Special Zone advisors.

8 Dong Tam (XS 410430): Elements of the 93d Engr Bn (Const) were constructing protective structures for the Medical Unit Self-Sustaining (MUST) Hospital in support of the 9th US Inf Div at the end of the reporting period.

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9 Blackhorse (YS 435965): Elements of the 27th Engr Bn (Cbt) completed a maintenance hardstand of M8A1 matting in support of the 398th Transportation Company.

10 Phu Quoc Island (US 930080): The 36th Engr Bn (Const) was assigned projects to clear additional jungle area for expansion of the POW facilities, rehabilitate the POW Camp access road, erect water storage tanks, and construct an airfield access road. Work accomplished during this period included quarrying, hauling, and placing rock for the POW camp and airfield access roads, bridge construction on the access road, jungle clearing for the POW camp, and installing four protective dolphins along the junk fleet pier at An Thoi.

(2) Lines of Communication (LOC): Deliberate road restoration to quality standards and emergency road repairs continued. 17% of the total Group effort was expended on LOCs during the period. Work accomplished included:

(a) Operation Long Haul (Route QL 15 - Bear Cat (YT 165000) to Ba Ria (YS 380610)): Elements of the 86th Engr Bn (Cbt) continued to upgrade this National Highway to MACV standards (24 foot hot asphalt roadway and 8 foot stabilized shoulders each side). Numerous emergency repairs of enemy interdictions were made by elements of the 36th and 86th Engr Bns. The northern 10 miles of the National Highway were prepared for paving. Paving was completed on 3 miles but was discontinued due to use of the asphalt paving train on higher priority projects.

(b) Route QL 15 (Ba Ria (YS 380610) to Vung Tau (YS 280460)): Elements of the 36th Engr Bn (Const) continued upgrading this National Highway to MACV standards. Work accomplished during this period consisted of widening selected sections, preparation of 7000 feet for paving, and paving 6000 feet.

(c) Route QL 1 (Xuan Loc (YT 460090) to Long Kanh - Binh Tuy Province Boundry (YS 817965)): Elements of the 27th Engr Bn (Cbt) continued to upgrade this National Highway to MACV standards until movement of the Bn on 5 Apr 68. Work accomplished during this period included clearing, widening, shaping, subgrade and base preparation, and interdiction repair between Xuan Loc and Gia Ray (YT 630110).

(d) Route QL 4: The upgrading of this National Highway to a condition able to withstand the summer monsoon season was initiated by Group units. A significant amount of engineer effort was also expended on the repair of interdictions.

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1 QL 4 (My Tho junction (LTL 6A) (XS 470478) to My Thuan Ferry Landing (XS 985358)): Elements of the 86th Engr Bn (Cbt) started to upgrade the road to an all-weather, two-way, Class 25 road on 2 Mar 68. The upgrading of this route was given the name "Operation Duong Cua Dan (People's Road)" and consisted of preparing and filling potholes with an asphalt cold mix, and surfacing a well prepared subgrade with DBST in areas where required. The work was 37% complete at the end of the reporting period.

2 QL 4 (Vinh Long (XS 070330) to Can Tho (WS 870100)): The 69th Engr Bn (Const) continued to support the Ministry of Public Works (MPW) by hauling sand and gravel to repair potholes and craters. An upgrading program similar to that described above was initiated, to include the installation of sheet pile along the canal side of the road to prevent further erosion.

(3) Barge Off-Loading Facilities: A joint ARVN, MPW, and US program of constructing and operating barge off-loading sites in the Delta was initiated to support the LOC program and meet the requirements for aggregate. Group units were given projects for sites at My Thuan (WS 986357), Tan An (XS 560654), My Tho (XS 500443), Dong Tam (XS 416430), Vinh Long (XS 070330), Sa Dec (WS 840380), and Soc Trang (XR 080620). Elements of the 86th Engr Bn (Cbt) initiated construction of a barge site at My Tho and operation of a site at My Thuan Ferry Landing. The 93d Engr Bn (Const) operated an off-loading facility at Dong Tam.

(4) Base Construction:

(a) Elements of the 34th Engr Gp continued base construction of cantonment facilities for a total of approximately 53,000 men at the following locations: Ba Ria, Bear Cat, Can Tho, Cau Lanh, Dong Tam, Gia Ray, Ham Tan, Long Giao, Long Thanh North, Phu Quoc Island, Soc Trang, Vinh Long, Vung Tau, and Xuan Loc.

(b) Construction of the permanent C-130 airfield and related aviation support facilities continued at Long Thanh North. A 5,000 foot bituminous concrete runway was completed. Related taxiways and parking aprons were in the final stages of completion at the end of April 1968. When completed, this facility was designed to handle the majority of the Army air traffic using facilities at Tan Son Nhut Air Base.

(c) An indication of the magnitude of 34th Engr Gp construction effort during the reporting period is given by the following:

1 Total CY of concrete placed: 8,951.

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2 Total SF of wood frame buildings completed: 334,087.

3 Total SF of wood hutments (billets) completed: 120,200.

4 Total SF of pre-engineered buildings completed: 24,000.

5 Total CY of laterite excavated: 464,947.

6 Total CY of fill hauled: 690,391.

7 Tons of rock produced: 189,391.

8 Tons of asphalt place: 3,680.

(d) Uncompleted Raymond, Morrison, Knudsen - Brown, Root, Jones (RMK-BRJ) contract projects previously assigned to the 34th Engr Gp were still active. The basic problem identified in previous reports still existed: un-availability of construction materials which are not standard to the Army supply system.

*(e) The Vinnell Corporation project of installing a 9,000 KW power plant at Bear Cat and primary and secondary distribution systems at Bear Cat and Long Thanh North was in progress at the end of April 68. Site preparation for the power plant was completed. Two control and one breaker pads were placed. One 3000 BBL bolted POL storage tank was erected.

*(f) The 34th Engr Gp continued to monitor contract dredging within the Group area of responsibility. At Dong Tam a 500,000 CM hydraulic fill stockpile was completed. During the last two weeks of the reporting period, maintenance dredging was initiated in the Dong Tam Turning Basin. At Binh Thuy, hydraulic fill requirements for the logistical facilities, civilian war casualty hospital complex, navy facilities, road stockpile, ASP stockpile, and MAP stockpile were completed. A total of 1,631,000 CM of hydraulic fill were pumped at Binh Thuy during the reporting period. Mobilization for pumping 1,000,000 CM of hydraulic fill to create additional real estate at Can Tho was initiated by the contractor during the latter part of April.

* The Gp Contract Liaison Installation Master Planning Officer (CLIMPO) is responsible only for monitoring all contract construction in the group AOR. The US Navy thru their CICC division is responsible for administering all phases of contract construction in Vietnam.

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(5) Design and Construction Engineering:

(a) The Group Engineer Section concentrated its efforts in producing standard construction drawings and details for buildings to be built in large numbers by all of the Group's units. These included standard messhalls, barracks, showers, water towers, and administration buildings. An effort was made to incoporate the best ideas of all previous designs into the standard drawings. The creation of standard designs saved design time for the battalions and facilitated material requisitions and cost accounting, and helped ensure compliance with standards for cantonment facilities.

(b) One of the more significant designs completed was a protective structure for the Medical Unit Self - Sustaining (MUST) Hospital at Dong Tam Base. As a result of heavy mortar damage to the unprotected inflatable units during the TET offensive, a protective shelter was required to withstand direct hits from mortar and rocket rounds. Faced with a tight deadline and the lack of more suitable materials, a timber and sandbag structure was designed to be built over the MUST units without interfering with the continuing operation of the surgical hospital. A clear span of 24 feet with a ceiling height of 14 feet was obtained by utilizing a 12" x 14" timber deck and 8" x 10" timber posts. The roof was protected by 18" of sand capped with a 6" sand cement layer and a corrugated metal roof. The sidewalls were constructed of sand filled timber walls 48 inches thick at the base and 24 inches thick at the top.

(c) Several bridges were designed during the period. Standard designs were modified to accomodate site conditions and location. Bridges were designed utilizing steel stringers, timber deck, and concrete and steel substructures capable of carrying an AASHO HS20-44 highway loading. The longest bridge designed was a 150 foot two span bridge at Xa Thien Tan (YT 054191).

(d) Two major Mekong Delta airfield reconstruction projects were designed during the reporting period. Both utilized lime stabilization of the highly plastic clays found in the Delta region. The Ben Tre Airfield (XS 480350) design used a 24 inch prepared base consisting of a clay-lime sub base, a clay-lime-cement base course, and a DBST surface. The Ben Duc Airfield (XS 475450) design used a 12" clay-lime base course, a sand-asphalt cap, and M8A1 matting for a wearing surface. Both airfield surfaces were designed for a life of two years and to provide year round service from airfields which previously were not usable during the monsoon season. Both airfields were designed for C-130 aircraft. Inclosure 4 illustrates the design for the Ben Duc Airfield.

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(e) The performance of M8A1 matting was evaluated during the reporting period. It was found that continuous satisfactory performance of M8A1 surfaced airfields requires close control over runway gradients during construction, and inspection of individual mat panels for proper locking. Experience indicates that poor transverse grading on the sub-grade leads to unlocking of adjacent panels by repeated aircraft landings. In several instances it was found that the panel locking lugs were of insufficient length to penetrate the rectangular female receiver, thus allowing two adjacent panels to slide more than the allowable 3/8 inch tolerance. The combination of an improperly locked panel and low spots in the subgrade allowed the panels to deflect and slide along their long axis until unlocking and separation occured.

(f) The surveying and soils sections continued to support the Group's battalions upon request. The soils section performed many tests of sand-asphalt, clay-lime, and clay-lime-cement mixtures in order to determine optimum proportions for soil stabilization and to perfect construction techniques. Numerous sand-asphalt stabilization tests allowed Group HQ to develop a curve illustrating a correlation between the fineness modulus of any native III and IV Corps sand sample and the proper asphalt content for optimum strength and density. Use of the curve allows a good estimate of the required asphalt content to be made prior to laboratory testing. A graphical representation of the curve is inclosed as Inclosure 5. Additional verification tests were continued to improve the accuracy of the test data. It was found that sand with a fineness modulus of 0.9 or less could not be effectively stabilized with asphalt. That fineness modulus was encountered with hydraulic dredge fill sand, which has a very high content of silt size particles.

(g) Existing LOC pavements were evaluated prior to upgrading to identify pavements which did not require replacing when the route was to be widened to meet MACV criteria. Representative sites approximately one mile apart, depending upon local conditions, were selected. An earth auger was used to make a series of four holes of varying depth located along the edge of the pavement on five foot centers. Inspection of the pavement layers was made from the borings. Field CBR equipment was used to determine the in-place CBR of the underlying materials in the four holes and on the existing pavement surface. Strength vs. depth profiles were thus obtained on existing pavements, which made it possible to eliminate unnecessary replacement of an already adequate pavement structure and located areas requiring complete removal.

(h) Analysis of an old and partially destroyed reinforced concrete thru-truss bridge was made at the Cau Co May River on National Highway QL 15. This route is the only overland link between Vung Tau and Saigon. It was planned to integrate a 300 foot Bailey bridge with

the old structure to upgrade the class of the bridge. A close visual inspection was made by divers from the Group's 536th Engr Det (Port Const), who found that all concrete piers of the original bridge were sound below the water level. As a result, it was decided to remove the 4 existing class 9 Eiffel bridge spans and replace them with a continuous span Bailey bridge. Upon completion this would allow the vital road to be opened again to Class 40 traffic.

(6) Training: During the reporting period there were three training programs which affected the Group.

(a) The 53d General Surport Group continued to provide replacement training to newly arrived 34th Engr Gp replacements stationed within the Vung Tau Special Zone.

(b) Personnel from the 34th and 159th Engr Groups began attending a power distribution school at Can Tho conducted by the 69th Engr Bn (Const) on 4 March 68. The students received practical OJT while installing the Can Tho electrical distribution system. The school was scheduled to continue through May 68.

(c) Maintenance training conducted within the Group included instruction on multifuel engines given to 36th Engr Bn (Const) Maintenance officers by representatives of Continental Motors, and rock crusher training to 36th Engr Bn (Const) quarry personnel by a representative of the US Army Mobility Equipment Command.

e Logistics and Maintenance:

(1) Supply:

(a) Planned construction in the Delta was disrupted significantly by the TET offensive by delay in shipment of construction materials scheduled for delivery over the balance of the pre-monsoon construction season. The amount of crushed rock shipped to the Delta during February, March, and April illustrates the affect on material deliveries:

MONTH	SHIPPED	REQUIREMENTS
February	3,200 tons	22,000 tons
March	13,280 tons	24,500 tons
April	13,085 tons	38,000 tons

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The TET offensive was the principle limitation on February rock shipments. Tugs and cargo vessels were not available or did not move on the Delta rivers during much of February and early March due to the security situation. Subsequent delivery shortages were primarily due to limited discharge capability at the ports. Port improvements (discussed in paragraph 1d(3)) were initiated concurrent to major Delta construction requiring large port capabilities for logistic support. The increased port capability was therefore not immediately available for increased shipment of supplies, resulting in project schedule delays and accumulation of shipping at ports waiting to be off loaded. The greatest imbalance between port capacity and project requirements occurred at Vinh Long (XS 0734) and My Thuan (WS 9936). The estimated port capability at Vinh Long at the end of the reporting period was 8,000 tons per month. More than twice that amount of materials was required per month to meet construction goals in the area. The shortage of stevadores and terminal service personnel and equipment became increasingly evident with increased engineer effort expended in IV CTZ. Engineer units were required to off load materials at all of the Delta ports except Can Tho in order to keep projects moving.

(b) Non skid compound for use on runway matting remained in short supply through out the country. Lack of this crucial item during the monsoon season creates an extreme safety hazard on runways.

(2) Maintenance: The Group experienced a steady deadline rate of all items of equipment during this reporting period. Goals of 7.0% for critical items and 3.5% overall were established for Group units compared to 10% and 5.0% respectively established by USARV. During this reporting period the Group overall goal was maintained and the critical items percentage fluctuated within 1% of the Group goal. This was the direct result of increased command emphasis on operator maintenance and training, and obtaining repair parts through the use of Material Readiness Expeditors (MREs). The Group established two full time MREs for the purpose of obtaining repair parts from property disposal yards, cannibilization points, and organic units. The acquisition of parts through other that normal supply channels detracts from the unit's maintenance supervision capability, however this was justified when the supply system was unable to supply the necessary repair parts.

f Force Development:

(1) Two construction companies (B and C) of the 93d Engr Bn were relocated during February from Long Thanh North (YS 1598) to provide additional engineer support to develop the 600 acre hydraulic fill at Dong Tam Base (XS 4243). The companies became primarily involved in constructing aviation and troop MER facilities, with additional effort on base construction for the 9th US Inf Div.

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(2) A construction company (B) of the 69th Engr Bn was relocated to Vinh Long (XS 0433) in March to construct aviation and cantonment facilities. This was the first engineer construction company to be stationed at this Delta Base.

(3) On 5 Apr 68 the 27th Engr Bn (Cbt) and the 591st Engr Co (LE) were reassigned from the Group to the 18th Engr Bde.

(4) On 25 Apr 68 the 31st Engr Bn (Cbt) was assigned to the Group.

(5) The Group force structure remained well balanced for accomplishing its assigned missions, with the exception of shortages in port construction capability. At the end of the reporting period, the scheduled project backlog of the organic 536th Engr Det (PC) was approximately 1½ years.

g Command Management: The lack of sufficient aviation support continued to hamper efficient command and control. The problem was compounded by the widely separated project locations throughout the Group's AOR and the fragmentation of the battalions' efforts.

h 536th Engineer Détachment (Port Construction):

(1) Command: CPT John P Carey was replaced by 1Lt Michael T. Bobilya as Detachment Commander on 12 Mar 68.

(2) Personnel:

(a) At the end of the reporting period the personnel strength was:

	O	WO	EM	TOTAL
AUTH	2	0	61	63
ASGD	2	0	52	54

(b) During the reporting period 28.6% of the unit's personnel rotated to CONUS. The enlisted strength was 46 on 1 Apr but increased to 52 by 17 Apr.

(3) Operations:

(a) The Detachment completed construction of the Cau Muong Chuoi Bridge (XS 983800), in conjunction with the 86th Engr Bn (Cbt). The scope of the work on this project is given below:

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1 The remaining 44 pieces of underwater bracing were emplaced by the diving section with support from the 41st Port Const Co divers.

2 4-32" "I" beam caps were welded into place on the center piers.

3 Both abutments were affixed with caps and bracing.

4 Both center piers were load tested with 60 tons for a 7 day period. No settlement was detected.

5 An 80' BK barge towed by the unit's LCM-8 was used to transport 3 ea 30 meter Eiffel spans from New Fort (XS 890938) to Cau Muong (XS 893900). The spans were placed by floating the barge into position between the piers and lowering the spans onto the abutments by jacks and tidal action.

6 The construction section, supported by the diving section installed elaborate mine barriers around the two center piers.

(b) On 21 Mar 68, the pile driving section arrived at My Tho to begin construction of a barge off-loading facility in support of the 86th Engr Bn (Cbt). By the end of the period the construction section was converting the welding barge to a second pile driving barge with a skid mounted pile driver powered by a diesel winch for construction of a barge off-loading facility at Vinh Long (XS 070330).

(c) The unit's dozer, a D-7, operated daily in one of the two Vung Tau Quarries in support of the 36th Engr Bn (Const).

(d) The unit's heavy equi ment and construction sections supported 17 different units on 80 different occasions.

(4) Logistics:

(a) The supply of welding electrodes continued to be a major problem throughout the construction of the Cau Muong Chuoi Bridge.

(b) The availability of timber piles in lengths greater than 60' was very limited and splicing of timber piles proved unsatisfactory. The spicing was time consuming and frequently resulted in the upper pile being broken above the splice during subsequent driving.

i 573d Engineer Company (Float Bridge):

(1) Command: On 26 Feb 68, the unit had a change of command. CPT Claude C. Pickrell Jr, succeeded 1LT Paul B. Cassell Jr.

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(2) Personnel, Administration, Morale, Discipline: From 20 Feb 68 to 12 Mar 68, the unit had its largest number of personnel returning to CONUS. Four officer positions and ten senior NCO positions changed as the unit completed its first year in the Republic of Vietnam.

(3) Intelligence and Counterintelligence: None.

(4) Plans, Operations and Training:

(a) During the reporting quarter the unit continued its assigned mission of hauling supplies to the 27th Engr Bn located at Long Giao, 86th Engr Bn located at Long Thanh and My Thuan, and supplying the 93d Engr Bn at Long Thanh and Dong Tam. The unit was also called upon to transport personnel and equipment for the movements of the 93d Engr Bn from Long Thanh to Dong Tam and the 31st Engr Bn from Long Binh to Long Giao. The company also moved the 27th Engr Bn personnel and equipment from Long Giao to Saigon Docks. A total of 256,765 tons of engineer construction materials were hauled 205, 551 miles in 6356 truck days.

(b) The company constructed and maintained a five float reinforced M4T6 raft from 22 Feb 68 to 15 Mar 68. The mission was to support the 169th Engr Bn in the reconstruction of a river dike along the Rach Ba Hong River. A 20 ton Rough Terrain crane with clamshell mounted on the reinforced M4T6 raft was used to reconstruct the dike with subaquous distainted fill.

(c) From 21 Apr to 26 Apr 68, the company assisted in the construction of a 930' M4T6 Tactical Assualt Bridge across the Song Dong Nai near Ap Thanh Binh (YT 3126). The operation was in support of the 11th Arm Cav Reg on 25 Apr 68. Between 0030 hours and 0300 hours 26 Apr the bridge site was attacked by an estimated 50 enemy using mortars, RPG and automatic weapons fire. This unit had one officer and eight EM WIA; one 5 ton bridge truck, two ¼ ton trucks, one bay of M4T6 bridging, four M-16 rifles, two VRC 46 radios and one AN/PRC 25 as combat losses.

(5) Logistics: None

(6) Force Development: None

(7) Command Management: None

(8) Inspector General: None

(9) Information: None

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(10) Civil Affairs: During this period this unit was engaged in a minor civic action program. The unit supplied from military resources 8000 pounds of cement and 250 pounds of food. The cement was used in construction of bunker type protection for orphans. The company also supplied potable water to the Bien Hoa Catholic Orphanage.

j 617th Engineer Company (Panel Bridge):

(1) Command:

(a) During the reporting period, the 617th Engineer Company (PB), remained located at Long Binh, South Vietnam (XT 040073). The major activities of the unit included: combat support to Second Field Forces Vietnam (II FFORCEV) and IV ARVN Engr Corps, bridge upgrading (LOCs), and dump truck support to 34th Engr Gp (Const) units.

(b) The unit continued to be commanded by CPT Reginald N Dean until 7 Feb 68. CPT Stephen P Wilson assumed command on 8 Feb 68.

(2) Personnel, Administration, Morale, and Discipline:

(a) At the end of the reporting period, the personnel strength was:

	O	WO	EM	TOTAL
AUTH	3	0	124	127
ASGD	3	0	118	121

(b) 67% of the key personnel departed the unit on normal rotation during the reporting period; however, the rotational problem was relieved by the influx of highly qualified senior grade non-commissioned officers.

(c) During the period, four personnel extended their foreign service tours. A high state of morale, dedication to purpose, and continued feeling of job accomplishment contributed to this high extension rate.

(d) An average of 22 Local National permanent hire personnel were employed by this unit. The average daily wage for these Local Nationals was 201 $VN. The personnel performed such tasks as wood-working, cleaning bridge parts, and kitchen police.

(e) No unusual disciplinary problems developed or were experienced during the reporting period.

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(3) Plans, Operation, and Training:

(a) Operational support: During the reporting period, 35% of the unit's effort was expended on operational support missions, which are listed below:

1 Operation An Huu Bridge (WS 980398) was conducted in support of the IV ARVN Corps, began on 9 Feb 68 and terminated on 16 Feb 68, with 160 feet of triple single (TS) bridge erected.

2 Operation Thu Duc Bridge (XS 905986), in support of the 1st US Inf Div, was conducted from 18 Feb 68 to 19 Feb 68; 70 feet of double single (DS) bridge were erected.

3 Operation An Ngai Bridge (XS 155501), 19 Feb to 24 Feb 68, was conducted in support of the IV Corps ARVN, with 140 feet of TS bridge erected.

4 Operation Cat Lai Bridge (943909), in support of the 159th Engr Gp, began on 23 Feb 68 and terminated on 24 Feb 68 with 90 feet of DS bridge erected.

5 Dong Tam Bridge Upgrade (XS 440431), in support of the 9th US Inf Div, was conducted on 31 Mar 68 to 1 Apr 68, with existing 190 feet of DS converted to TS bridge.

(b) Base Construction Support:

1 During the reporting period, this unit supported the 93d Engr Bn (Const) at Bear Cat (YT 165000) with 500 CM of base course material for use in construction of the Long Thanh North Airfield.

2 3,480 CM of sand and gravel were trucked to Camp Blackhorse (YS 450965) in support of the 27th Engr Bn. This material was utilized in the Blackhorse concrete batch plant.

(c) Unit Missions: In addition to those missions tasked to the 617th Engr Co by higher headquarters, several unit tasks were undertaken and completed during the reporting period as follows:

1 Construction of a 45 man personnel bunker.

2 Construction of a 7-position firing bunker in the south sector of the company's internal security perimeter.

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3 Removal and subsequent replacement of approximately 10,000 sandbags that were emplaced around all billet areas as a counter-mortar defense means.

(d) Training:

1 Mandatory topic training was conducted during the reporting period as commitments allowed; familiarization firing for newly assigned personnel was also accomplished.

2 Supply personnel from this unit received excellent training in the handling of Proscribed Load Lists from 1st Logistical Command instructors at the 185th Maintenance Bn area at Long Binh; the unit armorer attended a one day armorer's course conducted by the 159th Engr Gp at Long Binh.

(e) Logistics:

1 Maintenance: This unit has enjoyed a steady downward trend of the deadline rate of all items of equipment during the reporting period. This trend was the direct result of increased command emphasis on operator maintenance and training; in addition, considerable effort was expended in obtaining repair parts through Property Disposal yards, cannibalization points, and other units.

2 The PLL for the unit was 70% full at the close of the period.

(f) Civic Affairs: The unit actively supported the Bethany Orphanage located in Ho Nai (XT 096126), by constructing a 4-man shower, 3-man latrine, 44 tables and benches for five classrooms, and by donating 21,277 $VN. In addition, over 500 pounds of food and 75 pounds of clothes were donated by unit personnel.

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

a. Personnel. None.

b. Operations.

(1) Estimating DBST Application Rates.

(a) OBSERVATION. There is a need for an expedient effective method for estimation of DBST application rates.

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(b). EVALUATION. Several paving references recommend a range of bitumen and aggregate application rates for single and multiple surface treatments. A closer approximation can be made utilizing a piece of plywood, three feet square, and varying the aggregate and bitumen applied until the desired results are achieved. This saves considerable time and effort on the job and provides a basis for estimation of the required bill of materials.

(c) RECOMMENDATION. That estimation of surface treatment application rates be made on a piece of plywood. This procedure would greatly assist in planning project application rates and estimating the bill of materials.

(2). Responsibility for Tactical Float Bridge Construction.

(a) OBSERVATION. Experience has shown that Engineer units supported by float bridge companies seldom have the expertise or familiarity with float bridge construction available in the bridge companies.

(b) EVALUATION. The mission of float bridge units is to provide technical personnel and equipment to load, maintain, transport, and supervise erection of tactical stream crossing equipment. This mission should be extended to provide for float bridge construction responsibility with support from Engineer construction or combat companies. The float bridge unit commander should be directly responsible to the supporting Battalion Commander.

(c) RECOMMENDATION. The float bridge company should have responsibility for actual bridge construction with support from other engineer units. Overall mission responsibility should remain with the engineer battalion.

(3) Protection of Bridges from Floating Mines.

(a) OBSERVATION. A requirement exists to protect bridges from floating mines.

(b) EVALUATION. It is necessary to provide for protection from floating mines on bridges constructed in the Group AOR. Streams in this region often flow in two directions as a result of tidal action. Bridge piers require all around protection from floating mines. A solution used on the Cau Muong Chuoi bridge was to construct outriggers extending five feet from the intermediate piers. These outriggers were constructed from eight inch channel. The large size of channel members was required to withstand the twelve feet per second tidal current in the

300 foot wide channel. To speed installation, 10 panels approximately 25 feet square constructed of pipe, steel angle, and chain link fence were prefabricated and transported by barge to the bridge site. To facilitate fastening the chain link fence to the pipe frame, ¼ inch rebar was threaded through the links and the rebar then welded to the pipe. The panels were lifted into place by crane and welded to the outriggers. With a 14 foot tidal variation, the panels provide protection to six feet below low tide. Barbed tape and barbed concertina were installed between the barrier and the piers to discourage underwater swimmers and prevent climbing upon the barrier. The barrier is self cleaning due to reversal in stream current. Installation time was cut about 50 per cent with the prefabrication. Only two underwater bolted connections were required per panel.

(c) RECOMMENDATION. Bridge protection barriers be prefabricated to save time and facilitate erection.

(4) Proper Joint Spacing of M8A1 Airfields.

(a) OBSERVATION. Proper control of joint spacing is essential in constructing an M8A1 matting runway.

(b) EVALUATION. In order to maintain proper alignment in constructing an M8A1 airfield, it was necessary to fabricate "spacer blocks" of ¼ inch thick steel plate forming a handle and two legs. These plates are used in conjunction with the female lug receivers, to set the end to end spacing of the M8A1 panels. Since several manufactures of M8A1 steel matting vary the size of panels and locking components, it has been necessary to construct a separate "spacer block" for each specific M8A1 manufacturer. This enables the laying crew to lay an airfield within 3" of the desired centerline over a 2500 feet length.

(c) RECOMMENDATION. That proper alignment of M8A1 airfields be more readily achieved by using a "spacer block" to keep all matting joints at a constant dimension.

(5) Expedient Hardstand Surface.

(a) OBSERVATION. A relatively inexpensive hardstand surface, capable of light to medium traffic loads, can be developed by combining ½"(-) crusher fines with higher viscosity asphalt cutbacks.

(b) EVALUATION. Test pads have been constructed with an asphalt content of 6.5% by weight of RC-800. The mixing is made with a grader performing a road mix operation. Compaction immediately following leveling allows either storage of cargo or vehicular traffic to be initiated in approximately 48 hours.

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RECOMMENDATION. That asphalt cutback stabilization of ¼"(-) crusher fines be used to provide an economical and strong expedient hardstand surface.

(6) Construction of Fuel Drum Racks.

(a) OBSERVATION. When fuel is stored in 55 gal drums, the drums frequently condenses moisture, which settles in the bottom of the drum and forms rust particles.

(b) EVALUATION. Drum racks contructed to tilt the drums downward and away from the spigot settle water away from the spigot. If no moisture has condensed in the drum, the barrel can be easily tilted up to obtain the remaining fuel.

(c) RECOMMENDATION. That drum racks be constructed to tilt the drums away from the spigot to avoid draining condensed moisture with the fuel.

(7) FM Radio in a Const Group HQ.

(a) OBERVATION. FM radio equipment authorized to Hq and Hq Company of an engineer construction group by TOE 5-112E is inadequate.

(b) EVALUATION. Group Hq operates FM Command net, the Group FM Command net and the local area defense FM radio net. Stations in the Group FM Command net are located up to 90 miles away which requires a relay to be located on high ground. To meet these requirements, four AN/PRC-25 radios are being used, in addition to the one authorized FM radio set, an AN/VRC-46.

(c) RECOMMENDATION. That four additional radios, type AN/PRC-25 be authorized on TOE 5-112E. One radio each should be for use in the Bde Aviation FM net, in the area defense FM net, as the Group HQ station in the Group FM Command net, and as an auxiliary set at the relay station where the AN/PRC-25 can be operated in either the Bde or Group FM net while the other net is being monitored.

(8) Operation of a Const Group Message Center.

(a) OBSERVATION. Message Center personnel are more appropriately a part of the S1 Section than the Communications Section of an Engineer Construction Group, TOE 5-112E.

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EVALUATION. The vast majority of distribution, courier operation and message sevice conducted at the HQ of an Engr Const Group is administrative in nature. The Adjutant is responsible for the functions and should have the means to perform them. The teletypewriter operators of the communications section can perform what message center service is required to distribute electrically received messages to the classified distribution section under S2 or to the message center for unclassified distribution.

(c) RECOMMENDATION. That two message center clerks be changed from the communications section to the S1 section in the HQ and HQ Company of an Engr Const Group on TOE 5-112E.

c. Training. None

d. Intelligence. None

e. Logistics. None

f. Organization. None

g. Other. Maintenance

(1) Tractor, Full Track, D7E.

(a) OBSERVATION. A modification is required to keep hydraulic hoses from breaking on a D7E.

(b) EVALUATION. Group units have experienced difficulty with the rigid hydraulic hose at the rear of the hydraulic pump breaking. The breaking is caused by the constant vibration of the tractor.

(c) RECOMMENDATION. Remove the rigid hydraulic hose and replace with a high pressure hydraulic hose. This will eliminate the problem and keep the tractor in operation.

(2) Loader, Scoop, Hough H90CM.

(a) OBSERVATION. A modification is required to keep a swivel joint on the Hough Scoop Loader from breaking.

(b) EVALUATION. Group units have experienced difficulty with the swivel joint where the hydraulic hose connects to the hose of the bucket.

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(c) RECOMMENDATION. Cut the swivel joint loose from the bucket mounting and leave the joint suspended on the hydraulic hose. This will eliminate breakage of the joint.

William G Stewart

WILLIAM G STEWART
Colonel, CE
Commanding

5 Incl
1. Gp Organization Chart
2. Gp AOR Map
3. Emergency Prayer Card Packet
4. ~~Ben Due Airfield Design~~ WITHDRAWN - HQ DA
5. Empirical Asphalt Stabilization Graph

Copies Furnished:
6 - USAECAV(P), ATTN: AVCC-F&O (Courier)
1 - CO, 27th Engr Bn (Mail)
1 - CO, 31st Engr Bn (Courier)
1 - CO, 36th Engr Bn (Courier)
1 - CO, 69th Engr Bn (Courier)
1 - CO, 86th Engr Bn (Courier)
1 - CO, 93d Engr Bn (Courier)
1 - CO, 536th Engr Det (Courier)
1 - CO, 573d Engr Co (Courier)
1 - CO, 617th Engr Co (Courier)

AVBI-OS (1 May 68) 1st Ind
SUBJECT: Operational Report of Hq 34th Engineer Group (Const) for Period Ending 30 April 1968, RCS CSFOR-65(R1)

DA, HEADQUARTERS, 20TH ENGINEER BRIGADE, APO 96491

TO: Commanding General, USARV, ATTN: AVHEN-MO, APO 96375

1. Submitted in accordance with USARV Reg 525-15 dated 13 April 1968.

2. This headquarters concurs with the ORLL submitted by the 34th Engineer Group with the following exceptions:

a. Section 2; para b(1), "Estimating DBST Application Rates": There is a standard rule of thumb of one gallon per square yard per ten pounds of aggregate. Use of the "board method" applies to the weight of aggregate and is also a standard method.

b. Section 2, para b(2), "Responsibility for Tactical Float Bridge Construction": Nonconcur. All combat engineers should not only be proficient in employing float bridging, but equally qualified in all other phases of river crossing operations. The float bridge company is organized and equipped to haul bridging and provide necessary technical assistance and special tools. If that company were required to build the bridge, then equipment normally available in combat engineer companies would have to be added to the bridge company TOE. Furthermore, the bridge company would require additional personnel for work parties. If the labor force were provided the bridge company from a combat engineer company, there would be no unity of command and some question as to who was constructing the bridge.

c. Section 2, para b(5), "Expedient Hardstand Surface": In principle, the sggested method is excellent. The concept could be expanded to include road surfaces. The 1/4" aggregate and asphalt with a sand filler could be mixed in the asphalt plant, as cold mix, and used for patching or for mixing in place on the project. A grader should be able to windrow effectively and mix the material after the addition of an asphalt cutback. The resulting material could then be spread and shaped by the grader. Some initial compaction would be required, but the bulk of compaction would be provided by traffic.

FOR THE COMMANDER:

RICHARD E. TAYLOR
1LT, AGC
Assistant Adjutant

COPY FURNISHED:
CO, 34th Engr Gp, APO 96291

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AVHGC-DST (1 May 68) 2d Ind CPT Arnold/dls/LBN 4485
SUBJECT: Operational Report of HQ 34th Engineer Group (Const) for Period Ending 30 April 1968, RCS CSFOR-65(R1)

HEADQUARTERS, US ARMY VIETNAM, APO San Francisco 96375. 4 JUL 1968

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

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 30 April 1968 from Headquarters, 34th Engineer Group (Construction).

2. Comments follow:

a. Reference item concerning FM radios, page 24, paragraph 2b(7). The group requirement for FM radios, over and above the one AN/VRC-46 included in the proposed MTOE for engineer groups, may be of a transitory nature due, in part, to the present group mission. Recommend these immediate requirements be met with 180 day equipment loans. No further action can be taken until the proposed MTOE has been approved.

b. Reference item concerning operation of a construction group message center, page 24, paragraph 2b(8). The unit MTOE is an authorization document which gives the unit a basis for requisitioning personnel and equipment. It is understood that the commander has the prerogative of positioning personnel within his unit so as to best accomplish his mission. This adjustment of personnel within an organization based on the functions they perform is not reflected on the MTOE.

FOR THE COMMANDER:

John V. Getchell

JOHN V. GETCHELL
Captain, AGC
Assistant Adjutant General

Cy furn:
HQ 34th Engr Group (Const)
HQ 20th Engr Brigade

GPOP-DT (1 May 68) 3d Ind
SUBJECT: Operational Report of HQ, 34th Engr Gp (Const) for Period Ending 30 April 1968, RCS CSFOR-65 (R1)

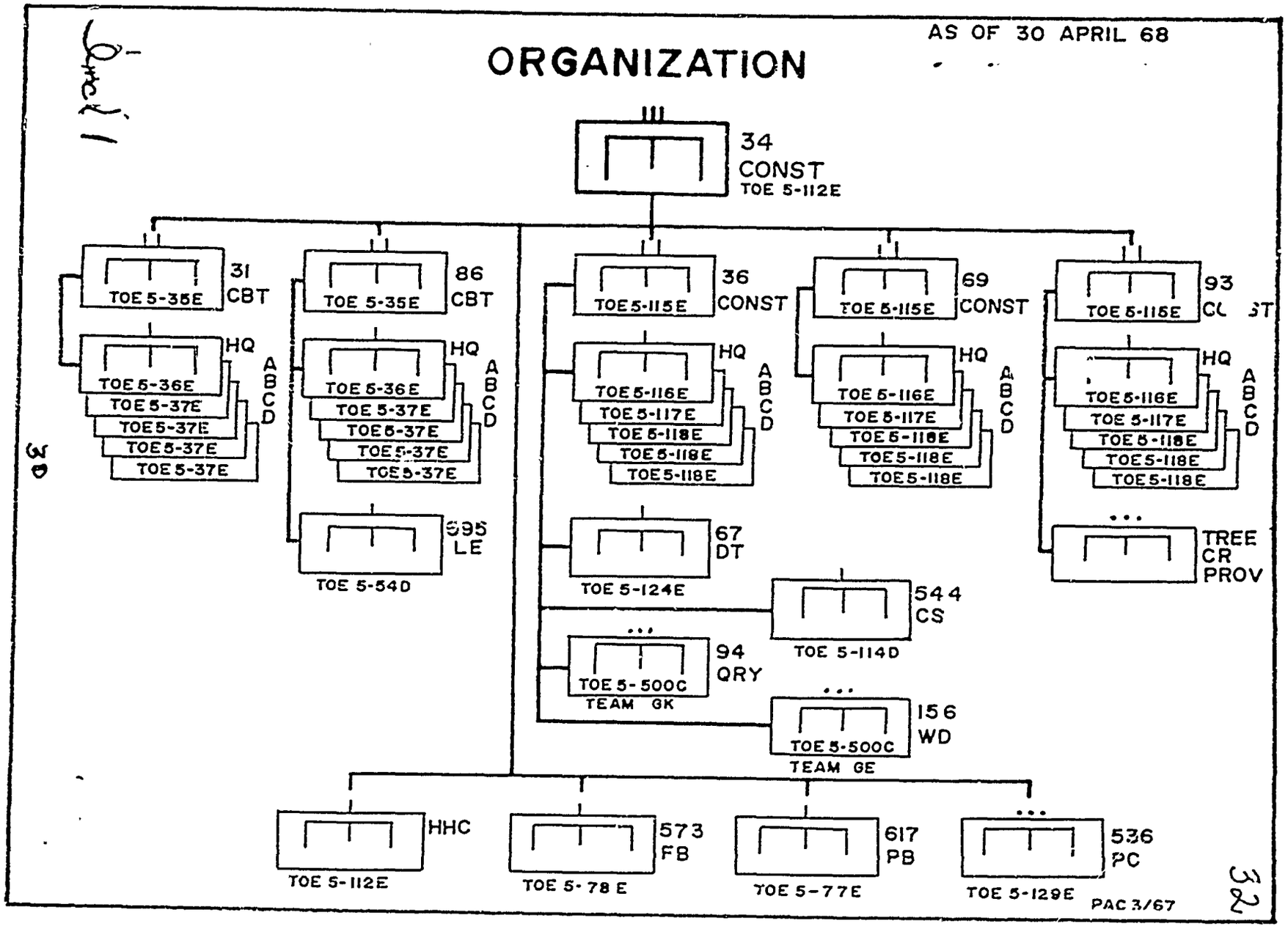
HQ, US Army, Pacific, APO San Francisco 96558 19 JUL 1968

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

This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

K. F. OSBOURN
MAJ. AGC
Asst AG


AS OF 30 APRIL 68
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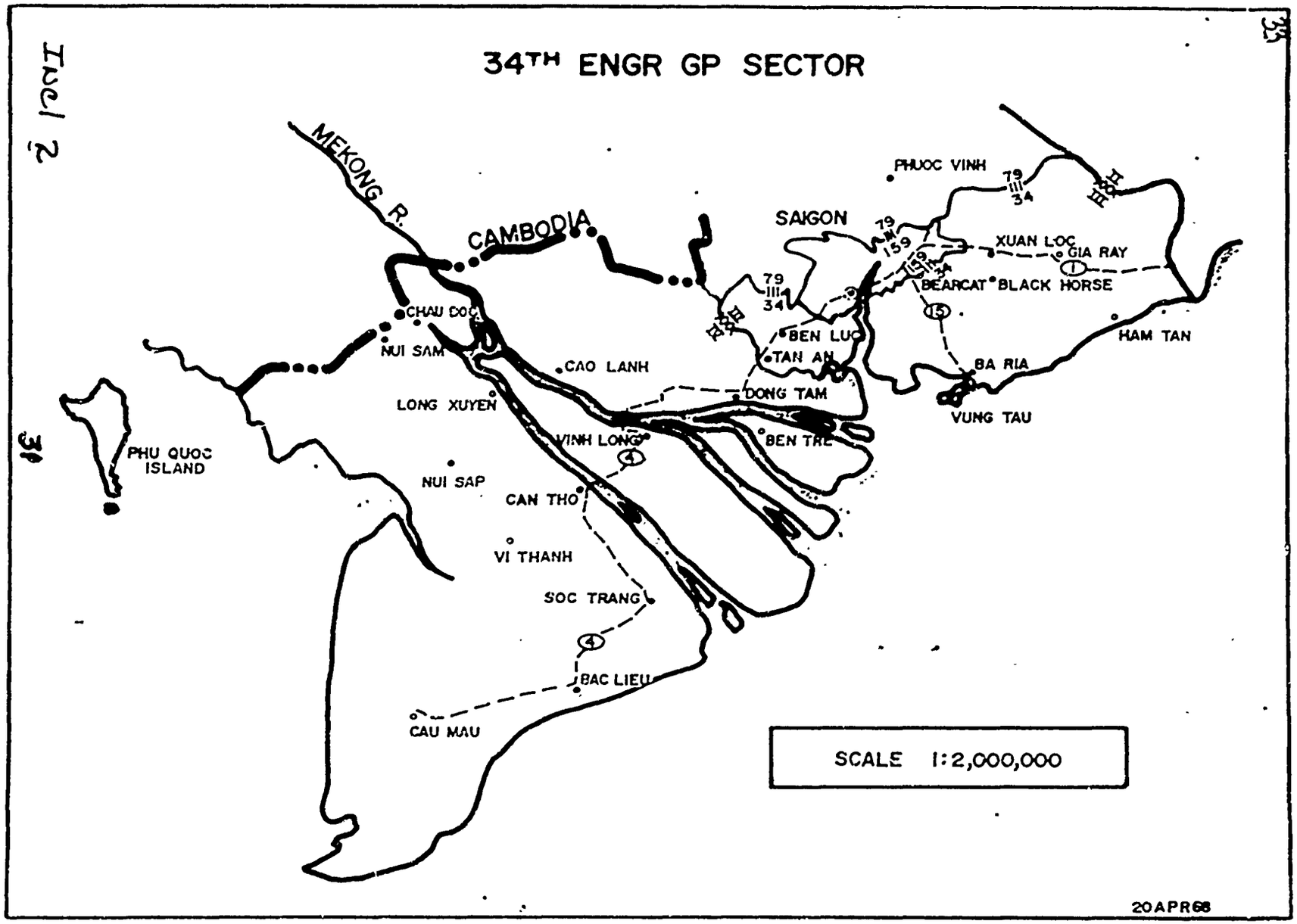
PAC 3/67

Incl 2


34TH ENGR GP SECTOR
MEKONG R.
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34TH ENGINEER GROUP (CONSTRUCTION)

CONTENTS OF EMERGENCY PRAYER CARDS

CATHOLIC CARDS:

EMERGENCY RELIGIOUS MINISTRATION
(Catholic)

If a dying soldier (Catholic) desires religious ministrations and no chaplain is within reach, his commanding officer or platoon leader may repeat with him (1) The Hail Mary, (2) The Act of Contrition, and (3) The Sign of the Cross. It is recommended that these prayers be carried on the person of all company commanders and platoon leaders at all times.

1. The Hail Mary. "Hail Mary, full of Grace! The Lord is with Thee; Blessed art Thou among women, and blessed is the fruit of thy womb Jesus. Holy Mary, Mother of God, Pray for us sinners, now and at the hour of our death. Amen."

2. The Act of Contrition. "O my God, I am heartily sorry for having offended Thee, and I detest all my sins, because of Thy just punishments, but most of all because they offended Thee, my God, Who are all-good and deserving of all my love. I firmly resolve, with the help of Thy Grace, to sin no more, and to avoid the near occasions of sin. Amen."

3. The Sign of the Cross. "In the name of the Father, and of the Son, and of the Holy Spirit, Amen".

4. In the event of death, the following prayer may be said: "Eternal Rest grant unto him O Lord and let perpetual light shine upon him. May his soul and all the souls of the faithful departed through the Mercy of God rest in peace."

35 JEWISH CARDS:

EMERGENCY RELIGIOUS MINISTRATION
(Jewish)

If a dying soldier (Jewish) desires religious ministrations and no chaplain is within reach, his commanding officer or platoon leader may repeat with him (1) The Shema, (2) The Confession for the Critically Ill, and (3) The 23d Psalm. It is recommended that these prayers be carried on the person of all commanding officers and platoon leaders at all times.

1. The Shema. "Hear O Israel: the Lord our God, the Lord is One."

2. The Confession for the Critically Ill. "Lord my God, God of my fathers, before Thee I confess that in Thy hands alone rests my healing or my death. If it be thy will, grant me a perfect healing. Yet if my death be fully determined by Thee, I will in love accept it at Thy hand. Then may my death be an atonement for all sins and transgressions, and for all the wrong which I have committed before Thee. Amen."

3. The 23d Psalm. "The Lord is my shepherd; I shall not want. He maketh me to lie down in green pastures; he leadeth me beside the still waters. He restoreth my soul; he leadeth me in the paths of righteousness for His names sake. Yea though I walk through the Valley of the Shadow of death, I will Fear no evil; For Thou are with me; thy rod and thy staff, they comfort me. Thou preparest a table before me in the presence of mine enemies; thou anoinest my head with oil; my cup runneth over. Surely goodness and mercy shall follow me all the days of my life and I shall dwell in the house of the Lord for ever."

4. In the event of death the following prayer may be may be said: "Thy sun shall no more go down neither shall thy moon withdraw itself: for the Lord shall be thine everlasting light, and the days of thy mourning shall be ended. Amen."

Inclosure 3

PROTESTANT CARDS:

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EMERGENCY BAPTISM
(Protestant)

If a dying soldier has not been baptized and desires to be and no chaplain is within reach, any baptized person may administer baptism. Pour water three times on the brow saying his or her first name and this:

I BAPTIZE THEE IN THE NAME OF THE FATHER, AND OF THE SON, AND OF THE HOLY GHOST. AMEN.

Report the facts to a chaplain as soon as possible.

EMERGENCY RELIGIOUS MINISTRATION
(Protestant)

If a dying soldier (Protestant) desires religious ministrations and no chaplain is within reach, his commanding officer or platoon leader may repeat with him (1) The Lord's Prayer, and (2) The Apostle's Creed. It is recommended that this prayer and affirmation of faith be carried on the person of all company commanders and all platoon leaders at all times.

1. The Lord's Prayer. "Our Father which are in heaven, hallowed be Thy name. Thy kingdom come, Thy will be done on earth as it is in heaven. Give us this day, our daily bread. And forgive us our trespasses as we forgive those who trespass against us. And lead us not into temptation, but deliver us from evil; For Thine is the kingdom, and the power, and the glory forever. Amen."

2. The Apostle's Creed. "I believe in God the Father Almighty, Maker of heaven and earth; And in Jesus Christ his only Son our Lord: Who was conceived by the Holy Ghost, Born of the Virgin Mary; Suffered under Pontius Pilate, Was crucified, died and was buried; He descended into Hell: the third day He rose from the dead; He ascended into heaven, and sitteth on the right hand of God, the Father Almighty; From thence he shall come to judge the living and the dead. I believe in the Holy Ghost, the Holy Catholic Church: The Communion of Saints; The forgiveness of sins; The resurrection of the body: and the Life everlasting. Amen."

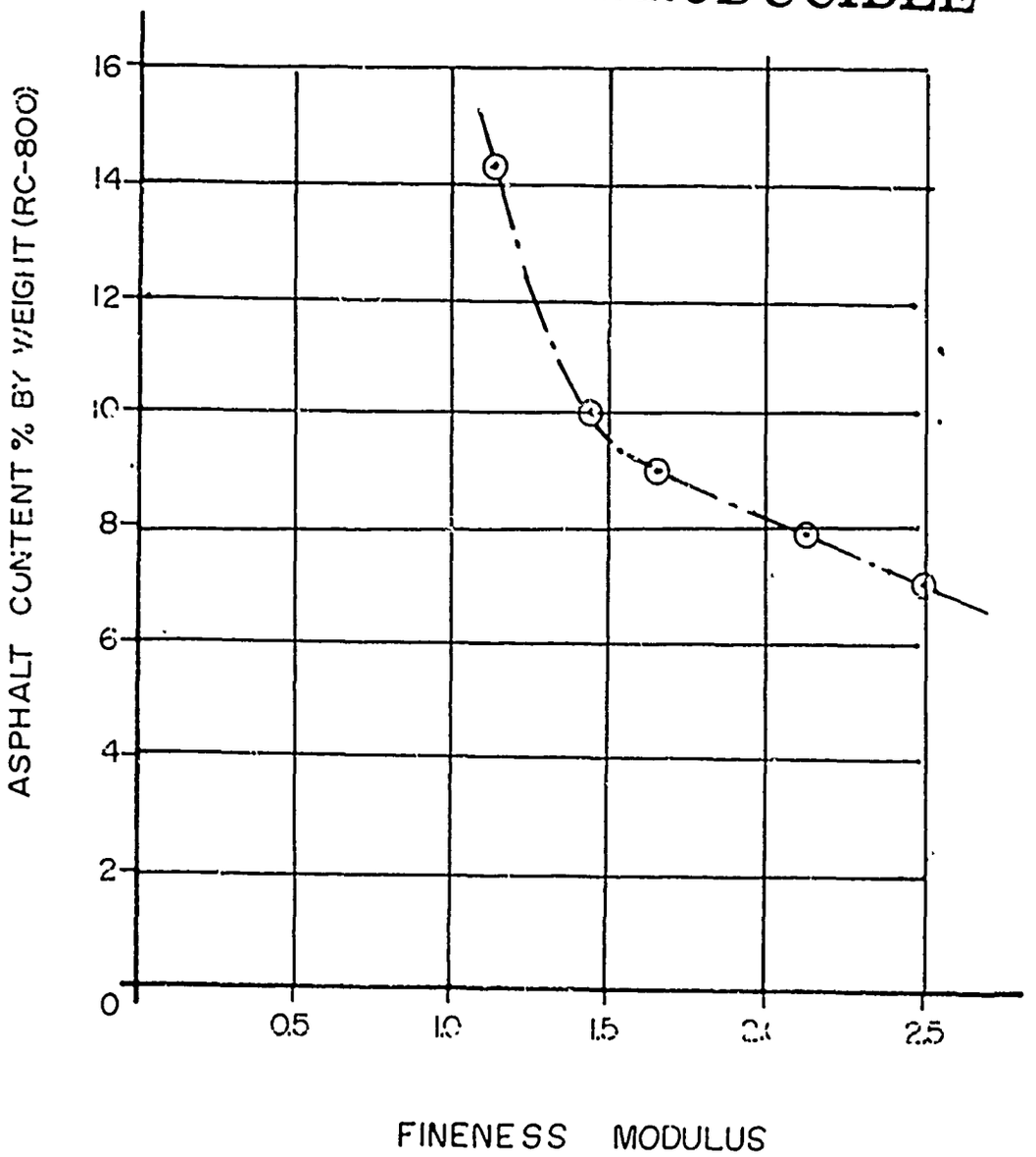
3. In the event of death the following prayer may be said: "Depart dear brother, out of this world in the name of the Father who created Thee, in the name of the Son who redeemed Thee and in the name of the Spirit who made thee whole. Amen."

Inclosure 3

37 EMPIRICAL ASPHALT STABILIZATION GRAPH

DEVELOPED BY 34TH ENGINEER GROUP FOR NATIVE SANDS OF III & IV CORPS, RVN

GRAPHIC NOT REPRODUCIBLE



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39 The following items are recommended for inclusion in the Lessons Learned Index:

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** FOR OT RD # _____

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ITEM 2

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ITEM 5

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