

~~CONFIDENTIAL~~

HEADQUARTERS
1st Engineer Battalion
1st Marine Division (Rein), FMF
APO San Francisco, California 96602

3:JCF:mhs
5750
Ser. No. 011-67
10 May 1967

From: Commanding Officer
To: Commanding General, First Marine Division

Subj: Command Chronology for Period 1 April to 30 April 1967

Ref: (a) MCO 5750.2
(b) FMFPacO 5750.8
(c) DivO 5750.2B

Encl: (1) 1st Engineer Battalion Command Chronology

1. In accordance with the provisions of references (a), (b), and (c), enclosure (1) is submitted.

Classified by the Director of
the Corps History and Museums
in accordance with the provisions of
FMF 1tr Ser 009D323/232095 of
1979
Signature *C. O. Newton* Date *7/18/92*

1ST ENGR BN
CMCC NR 015367
COPY 1 OF 7 COPIES

S & C FILES
HEADQUARTERS
1ST MARINE DIVISION, FMF

67 1881

Copy 1 of 6 copies

UNCLASSIFIED

~~CONFIDENTIAL~~

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

1ST ENGR BN

APR 1967

~~CONFIDENTIAL~~

HEADQUARTERS
1st Engineer Battalion
1st Marine Division (Rein), FMF
FPO San Francisco, California 96602

COMMAND CHRONOLOGY

1 April to 30 April 1967

INDEX

PART I - ORGANIZATIONAL DATA

PART II - NARRATIVE SUMMARY

PART III - SEQUENTIAL LISTING OF SIGNIFICANT EVENTS

PART IV - SUPPORTING DOCUMENTS

UNCLASSIFIED

~~CONFIDENTIAL~~

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

~~CONFIDENTIAL~~

PART I

ORGANIZATIONAL DATA1. DESIGNATIONCOMMANDER

1st Engineer Battalion

Maj C. O. NEWTON

20Aug66 - Present

SUBORDINATE UNITS

H&S Company (-)

Capt H.A. MORGAN III

15Mar67 - Present

Support Company (-)

Capt W.J. GLEESON

1-23Apr67

Maj P.J. SHANK

23Apr67 - Present

Company A (Rein)

Capt H.E. ITCHKAWICH

3Sep66 - Present

Company B (-)

Capt R.W. FALKENBACH

8Sep66 - Present

Company C

Capt H.L. LUTTRELL

8Sep66 - Present

1st Flt C Co, 3rd Engr Bn.

1st Lt. E.C. DEAR

8April66 - Present

2. LOCATION

Battalion minus Company A (Rein)

1 - 21 Apr

Chu Lai, RVN

Battalion minus Company B (-)(Rein)

21 - 30 Apr

DaNang, RVN

Company A (Rein)

1 - 8 Apr

DaNang, RVN

Detachment 1st Engineer Bn.

8 - 21 Apr

DaNang, RVN

Company B (-) (Rein)

25 - 30 Apr

Chu Lai, RVN

3. STAFF OFFICERS

Executive Officer

Maj E.J. TOWNSEND

25Jan67 - Present

Sergeant Major

SgtMaj F.C. TOMON

29Nov66 - Present

S-1/Adjutant

2nd Lt J. MOUTON

14Dec66 - Present

S-2

1st Lt D.M. TOMON

28Nov66 - 23Apr67

Capt W.J. GLEESON

23Apr67 - Present

DOWNGRADED AT 3 YEAR INTERVALS;
 DECLASSIFIED AFTER 12 YEARS.
 DOD DIR 5200.10

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

S-3	Maj P.J. SHANK	1Apr67 - 23Apr67
	Maj J.C. FLOYD	23Apr67 - Present
S-4	Capt L.R. CORNEWELL	14Mar67 - Present
S-5	Capt H.A. MORGAN III	14Mar67 - Present
Supply Officer	Capt T.F. BYRNE	7Sep66 - Present
Communications Officer	1st Lt P.A. BERKHEIMER	24Feb67 - Present
Medical Officer	Lt (USNR) J.A. BACKER	8Aug66 - Present
M. T. Officer	1st Lt J.T. WYNN	24Aug66 - Present
Engr. Equip. Officer	2nd Lt G. MACKY	25Aug66 - Present
Utilities Officer	1st Lt MIZERAK	11Feb67 - Present
Construction Officer	W.O. R.H. McALLISTER	10Sep66 - Present

4. AVERAGE MONTHLY STRENGTH

	<u>USMC</u>		<u>USN</u>
<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>
24	721	1	10

PART IINARRATIVE SUMMARY

The First Engineer Battalion (-) was in general support of Task Force X-Ray in the Chu Lai TAOR. Company "A" reinforced with 2nd Platoon Company "B" and detachments of Headquarters & Service and Support Companies provided engineer support to the 1st Marine Division in the DaNang TAOR. One officer and 19 men were under the operational control of the Chu Lai Defense Command for the period of 1 - 26 April 1967. The engineer Companies with support from Headquarters and Service and Support Companies participated in Operations Boone, DeSoto, Grand & Union and numerous small unit operations. General engineer tasks, pioneering roads, bunker and observation tower construction, and daily road sweeps required full effort by the Battalion. Engineer Support was provided for six Rough Rider Convoys.

On 8 April 1967, a detachment from 1st Engineer Battalion was activated at DaNang RVN. The Detachment consisted of Company A (Rein), 1st Engineer Battalion and Company C (Rein) 3rd Engr. Bn.

UNCLASSIFIED

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

~~CONFIDENTIAL~~

On 21 April 1967 the 1st Engineer Battalion Command was shifted from Chu Lai, RVN to DaNang, RVN. On 25 April Company "B" (-) (Rein) was placed under operational control of the 5th Marines.

From 1 April until 18 April 1967 nine sweep teams swept 370,200 meters of road in the Chu Lai TAOR.

During the period of 8 to 30 April 1967, 13 sweep teams swept 749,500 meters of road in the DaNang TAOR.

PART IIISEQUENTIAL LISTING OF SIGNIFICANT EVENTS1. PERSONNELa. Gains and Losses

During month

Joined two Marine officers, 41 Marine enlisted; dropped one Marine officer, 15 Marine enlisted.

b. Casualties

Nine WIA's and two KIA's

2. INTELLIGENCEa. Reconnaissance

Bridge recon from BT 548015 to BT 605722
 Bridge and Road recon from BS 642748 to BS 698766.
 Bridge and Road recon from BT 548015 to BT 605722.
 Bridge recon from AT 974769 to AT 938908.

b. Weather. Scattered showers for three days which did not delay any operations. Remaining time was warm to hot and humid.

c. Enemy Ordnance

(1) Six boobytraps and 19 mines were discovered and destroyed in the DaNang and Chu Lai TAOR during routine patrols and sweeps.

Ref: SITREP of 1st Engr Bn, Chu Lai, RVN 1-18 Apr.

SITREP of detachment 1st Engr Bn, DaNang, RVN 8-21 Apr.

SITREP of 1st Engr Bn, DaNang, RVN 22-30 Apr.

(2) Rough Rider from DaNang to Thang Binh located three mines and a fourth was detonated by a vehicle.

Ref: CO A Co. AA Rpt JCB/jcb over 3000 of 8May67.

Tab C

UNCLASSIFIED

DOWNGRADED AT 3 YEAR INTERVALS;
 DECLASSIFIED AFTER 12 YEARS.
 DOD DIR 5200.10

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~d. Tunnel/Cave/Fortification Destruction

(1) On 1 April at BT 515113 destroyed one 300m tunnel using 440 lbs of cratering charges and 25 lbs Calcium Carbide.
Ref: SitRep of 2 April 1967.

(2) On 6 April at BT 625006 destroyed one cave 20' long with 150 lbs TNT.
Ref: SitRep of 7 April 1967.

(3) Discovered and destroyed the following caves and bunkers during conduct of Operation DeSoto:

(a) 120 Bunkers

(b) 9 Cave complexes

Ref: CO Co. C AA Rpt JEM:ejo over 3480 of 7 May 1967. Tab B

(4) During the period 1 to 3 April 1967, an Engineer/LVTE-1 employment team fired four line charges in a clearing operation in the 1/7 TAOR. In addition to that destroyed by the line charges, the engineers also destroyed two bunkers and two boobytraps.
Ref: CO Co. A AA Rpt JCB/jcb over 3000 of 8 May 1967. Tab C

e. Other Ordnance. The following types and quantities of U.S. ordnance were destroyed:

$\frac{105\text{mm}}{72}$	$\frac{106\text{ RR}}{4}$	$\frac{81\text{mm}}{68}$	$\frac{60\text{mm}}{58}$	$\frac{57\text{ RR}}{2}$	$\frac{3.5}{2}$	$\frac{M-79}{2}$	$\frac{4.2}{1}$
$\frac{8''\text{ Round}}{3}$	$\frac{LAAW}{4}$	$\frac{M-26}{10}$					

Ref: SitReps of April 1967 and CO C Co. AA Rpt JEM:ejo over 3480 of 7 May 1967. Tab B

3. TRAINING

a. Land Mine Warfare and Demolitions Schools graduated 489 at DaNang and 165 at Chu Lai. Total 654 students. School at Chu Lai was terminated on 13 April 1967 due to relocation of the Battalion. Engineer units had 100 graduates.

Ref: SitReps of April 1967.

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

~~CONFIDENTIAL~~4. OPERATIONS

7 April 1967

Operation DESOTO, which began 28 January 1967, terminated 7 April 1967 and all Engineer personnel and equipment were returned to the 1st Engineer Battalion area. 2nd Platoon (Rein), Company C provided close combat engineer support to the 3rd Battalion, 7th Marine Regiment in the conduct of a search and destroy operation in the Quang Ngai Province, RVN. Demolition support encompasses the use of 15,000 pounds of explosive to destroy nine cave complexes, 20 boobytraps and 120 bunker type emplacements. A water purification and distribution unit was established which produced an average of 4,500 gallons of potable water and 3,000 gallons of shower water per day. Engineer technical assistance was given in construction of bunkers, emplacement of barbwire and use of demolitions. 3,000 feet of roads were constructed within the 3/7 C.P.. This road construction plus excavation for bunkers and fuel storage areas involved moving 20,000 cubic yards of earth. Upon termination of the operation, all facilities were transferred to the U.S. Army.

Ref: SitReps of 1Apr67 to 8Apr67.

CO Co. C AA Rpt JEM/ejo over 3480 dated 7 May 1967. Tab B

18 April 1967

Co. A provided engineer support to convoy moving ARVN troops as part of Operation UNION.

Ref: CO Co. A AA Rpt JCB/jcb over 3000 of 9 May 1967. Tab D

20 April 1967 - 25 April 1967

One squad from Company C provided engineer support to 3rd Battalion (-) (Rein), 7th Marine Regiment in conduct of operation GRANDE in Dai Loc Province, RVN. Engineers were utilized to destroy four 250 pound bombs and one dud 105mm round. All personnel returned to 1st Engineer Battalion area upon completion of the operation.

Ref: SitReps of 21Apr67 to 26Apr67 and CO Co. C AA Rpt GGG:hle over 3000 dated 7 May 1967. Tab A

UNCLASSIFIED

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

~~CONFIDENTIAL~~

23 April - 30 April 1967

Operation UNION continues in the Nui Loc Son and Heip Duc Valley area with Company B (-) (Rein) in direct support of the 5th Marines.

Ref: SitReps of B Co. 1st Engineer Battalion of 23 - 30 April 1967

5. WATER SUPPLY. The Battalion is operating seven water points and seven bath units in the DaNang TAOR. Potable water distributed was 3,221,200 gallons. Shower water distributed was 1,306,900 gallons.

Ref: SitReps for April 1967.

6. ROADS. Constructed 400m two lane road and 600m one lane road. Improved 600m with additional laterite wearing surface. Hauled, spread and compacted 3,500 cu yds of fill.

Ref: SitReps for April 1967

7. CIVIL AFFAIRS/CIVIC ACTION. The Battalion has not conducted any Civic Action for this period due to the relocating of the Battalion from Chu Lai to DaNang. New hamlets will be assigned.

PART IV

SUPPORTING DOCUMENTS

- TAB ✓ A CO Co. C AA Rpt GGG/hle over 3000 of 7 May 1967.
- ✓ B CO Co. C AA Rpt JEM:ejo over 3480 of 7 May 1967.
- ✓ C CO Co. A AA Rpt JCB/jcb over 3000 of 8 May 1967.
- ✓ D CO Co. A AA Rpt JCB/jcb over 3000 of 9 May 1967.
- ✓ E CO Co A AA Rpt JCB/jcb over 3000 of 9 May 1967.

UNCLASSIFIED

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

~~CONFIDENTIAL~~

COMPANY "C"
 1st Engineer Battalion
 1st Marine Division (Rein) FMF
 FPO San Francisco, California 96602

GGG/hle
 3000
 7 May 67

From: Commanding Officer
To: Commanding Officer, 1st Engineer Battalion

Subj: Combat after action report

Ref: (a) DivO 3480.1
 (b) Map Vietnam 1:50,000, sheet 6640 IV Series L7014

1. Code Name: Operation GRANDE
2. Dates of operation: 200930H Apr67 to 251700H Apr67
3. Location: Dai Loc Province, Republic of Vietnam
4. Command and Control Headquarters:
 3/7 (-) (Reinf) Major R. JORDAN
 "C" Co., Support Team Sgt. J. D. BATES
5. Task Organization: NA
6. Supporting Force: NA
7. Intelligence: 3/7 S-2
8. Mission: To provide close combat engineer support to 3/7 (-) (Reinf) for a five day operation.
9. Concept of Operation: One NCO and nine men with five pounds of demolition each were in direct support of M/3/7 and L/3/7. This team consisted of men from the 1st and 2nd Platoon of Company "C", 1st Engineer Battalion.
10. Execution: A nine man engineer team departed this CP at 171300H Apr67 to furnish close combat engineer support to 3/7 (-) (Reinf). The operation commenced at 200930H Apr67.
 Engineer support was not required on 20, 21, 23 and 24 April 1967.
 A 105 dud was destroyed at coordinates AT 604825 with four pounds of TNT on 220730H Apr67.
 Destroyed four 250 pound bombs at coordinates AT 785545 with five pounds of C-4 on each. The bombs were within 150 meters of each other and were destroyed between 1400 and 1600 on 25 April.

Tab A

The operation terminated at 251700H April 67 and the teams returned to this CP at 261230H Apr67.

11. Results: Four 250 pound bombs and a 105 round were destroyed using 20 pounds of C-4 and 4 pounds of TNT.

12. Administrative Remarks: None

13. Special Equipment and Techniques: None

14. Commanders analysis: No unusual problems were encountered and the demolition work of this engineer team was routine.

H. L. Luttrell
H. L. LUTTRELL

COMPANY "C"
 1st Engineer Battalion
 1st Marine Division (Rein) FMF
 FPO San Francisco, California 96602

JEM:ejo
 3480
 7 May 67

From: Commanding Officer
 To: Commanding Officer, 3rd Battalion, 7th Marine Regiment
 Via: Commanding Officer, 1st Engineer Battalion
 Subj: Combat After Action Report

Ref: (a) DivO 3480.1
 (b) Map Vietnam 1:50,000 Series L7014 Sheets 6738 I,II
 6838 III,IV

1. Code Name: Search and Destroy Operation Desoto
2. Dates of Operation: 28 January 1967 to 7 April 1967.
3. Location: Duc Pho, Quang Ngai Province, Republic of Vietnam
4. Command and Control Headquarters:

7th Marines (-) (Rein)	Col H. T. CROSBY <i>C.C. CROSSFIELD II</i>
3rd Bn, 7th Marines	Lt Col BROWARS
2nd Platoon, "C" Co, 1st Engineer Battalion	1stLt J. E. MCDONALD
5. Task Organization:
 2nd Platoon, "C" Co, 1st EngrBn
 Det Supt Co, 1st EngrBn
6. Supporting Forces: N/A
7. Intelligence: 7th Marine Regiment: IGWMS
8. Mission: To provide close combat engineer support to the United States Marine Corps Forces in the area of operation in the Duc Pho, Quang Ngai Province area.
9. Concept of Operation: 2nd Platoon, "C" Company, reinforced by elements of Support Company was in direct support of the 3rd Battalion, 7th Marines. The platoon was reinforced by the following personnel and equipment from Support Company.

Personnel:

1-Heavy Equipment mechanic/operator
 1-Heavy Equipment operator
 4-Water Supply personnel

Equipment:

1-D-4 Tractor 3-Water Supply Unit

tab B

10. Execution: On January 26, one (1) five (5) man team left the battalion and was attached to Lima Company, the first unit of the 3rd Battalion, 7th Marines to depart. The following day, January 27, the remainder of the 2nd Platoon Charlie Company reported to the Commanding Officer, 3rd Battalion, 7th Marines and each letter company was assigned an engineer team. "K" Company was assigned an eleven (11) man team, "M" Company and "K" Company a five (5) man team each. The CP group consisted of one (1) officer and four (4) enlisted. On January 28, the battalion went by convoy to Quang Ngai where they remained the night. On January 29, the battalion was helilifted to the Nui Dang area BT 815386 with "K" Company along with its engineer detachment going to Nui Dau BT 875324. Water point personnel joined the CP group at Quang Ngai. On January 30 the Heavy Equipment operators and mechanics joined the CP group. On January 30th the water point was set up. On February 1, the water point moved to the well site on the LZ. The bath unit was brought in the next day and set up the bath site. Hot showers were given that day.

On 2 February, the D-4 Tractor was brought in. It began work immediately digging ammunition and fuel bunkers for the LZ. It also made rough roads to gain access to these bunkers. The tractor was used extensively, putting out 8 Engineer hours, (about 11 man hours per day). Maintenance was performed before and after operation by the equipment mechanic.

During the first week of the operation the engineers assigned to "K" Company on top of the Hill at Nui Dang, BT 820389 worked on clearing paths for outpost and positions for "K" Company and India Battery. The hill had been previously mined by RVN forces when they controlled the hill. No record of the minefield layout could be found, and ARVN Engineers were not available. Paths and outpost were breached using Bangalore Torpedos. The area was then checked by mine detectors and probing.

During the first week of the operation covering the period from 29 January to 4 February all companies conducted operations and were accompanied by engineer teams with the exception of the engineers attached to Lima Company who remained on Nui Dau Hill to continue clearing paths for position on the hill. Most of the work done by these teams consisted of blowing up mines and booby traps. On 29 January 1967 two (2) WP 3.5 rounds and one (1) M-79 round was blown at BT 819401. On 30 January fourteen (14) 60 MM Mortars were blown at BT 825389. A VC cotton mill was blown at BT 822402. On January 31, six (6) booby trapped fragmentation grenades and four (4) recoilless rounds and fourteen (14) 60MM Mortar rounds were destroyed. The following day one 4.2" round, two (2) 57MM recoilless rounds and one (1) 40MM round was destroyed at the same location. Also destroyed on 1 February were fourteen (14) 81MM Mortar rounds, and sixteen (16) 60MM mortar rounds. The engineer team from "M" Company went on a company sweep to Quy Thein (2). Two (2) enemy bunkers were found and blown with cratering charges. Also the "M" Company team blew ten (10) 81MM Mortar rounds and seventy (70) 105MM rounds. On February 4 one engineer from "M" Company was WIA when he was hit in the head by a fragment of a friendly aircraft bomb at BT 818395. He sustained only slight wound and required no medical evacuation.

The CP group blew one (1) M-26 booby trap in the CP area BT 812384 on 28 January. The following day two (2) 60MM mortars and one (1) 105 round was blown in the CP. On January 31, 1967 the CP group went to join the team from "M" Company in blowing VC bunkers at BT 803391, Thirty (30) enemy bunkers made of mud and reinforced with heavy lumber and iron with about 2 feet of earth on the top were destroyed with two (2) cratering

charges each. One house was blown with two (2) cratering charges. Two (2) cratering charges were used to blow a reinforced gate. One brick school house was blown with 20 pounds of TNT. A house and bunker was blown along with a dud 60MM Mortar using four (4) cratering charges and 1/4 pound of C-4. On the morning of the 31st when the CP group left to join "M" Company and the engineer team with them that met at the bridge at coordinates BT 819393. The bridge had been previously blown out and all that remained was a steel beam. The night before the steel beam had been pushed so that one end was in the water. As Marines on both sides of the bridge were trying to lift the beam, a booby trapped 60MM mortar round was discovered just off the path on the south approach. It was then blown with 1/2 pound of C-4. The men withdrew from the northern bridge approach and one engineer began probing for booby traps. His bayonet hit the firing device of a buried 60MM Mortar and it went off injuring the man. He was medically evacuated by mule to C&C at Nui Dang.

On 1 February the CP group did the following within the CP area: blew one (1) MRA3 mine, one 105 Mfround, two (2) bunkers using one (1) cratering charge each, blew one 60MM mortar, blew thirty eight (38) 81MM mortar duds and two (2) 8 inch rounds. In addition the CP group blew (25) Chi Com grenades, two (2) Z-10 mines and fourteen (14) concussion grenades made of TNT wrapped with C-4. This ammunition was found in front of the lines along with two (2) Viet Cong KIA'S after an attack that night. Also blown up with the VC ammunition was four (4) LAAW'S and one (1) M-26 Dud Grenade. All these explosives were blown in one pile with 2 1/2 pounds of C-4.

On February 2, the CP group along with the engineer attachment from India Company accompanied "M" Company 3rd Battalion, 5th Marines, who had joined 3/7 in the operation. In addition to the "C" Company engineers, there were also two (2) engineers from "B" Company, 1st Engineer Battalion who were attached to "M" Company, 3rd Battalion 5th Marines. The sweep took place in the area of BT 825378. Twenty Two (22) bunkers, seven (7) of them reinforced were blown. Eight (8) cratering charges, three (3) satchel charges and eleven fifty (50) pound boxes of TNT were used to blow the bunkers. In addition six (6) 81 MM mortars one (1) 8 inch round, one (1) VC Satchel charge and one (1) Chi Com grenade were blown using a total of 15 pounds of C-4. The CP group returned to Nui Dang that night on the resupply run, leaving India Company team attached to M/3/7.

On 8 February, the CP group was ordered to go out to Hill #26 BT 834936 where "M" Co, 3/5 was operating in order to get an estimate on the amount of explosives and to assist in the destruction of a cave complex on the hill. Upon arriving at that position it was learned that one engineer was hit by fragments of a friendly artillery round earlier in the day. He was evacuated with a wound in his knee. Upon inspection of the cave complex, it was estimated that it would take 30 cratering charges or 4,000 pounds of demolitions to blow up the cave the cave complex on the hill. The caves were about 100 meters in length and five feet high with many branches. It is difficult to determine whether it was one cave on the hill or a series of caves since the hill had been previously hit with three (3) 1000 or 2,000 pound bombs and had caved in some parts of the caves. While waiting for the demolition to arrive all the engineers on Hill #26 joined the engineer team with "L" Company 3/7 and destroyed bunkers in the village below Hill #26 at BT 832396. Twenty Two (22) bunkers and family shelters were blown using a total of 600 pounds of explosives. On 7 February, the cave complex was blown. Approximately 1000 pounds were used for each of the three caves and about 500 pounds on a smaller cave found later. A total of 3,600 pounds of explosives

were organized in March, 1967.

On 4 February, the engineer team from "K" Company rear BT 875324 was sent to check on a reported dud mortar round. While searching for the dud, a minefield was found in the area that was supposed to be clear. One engineer after ascertaining that it was a minefield, stepped back to withdraw from the area. In so doing he stepped on a mine to his rear and it detonated. One engineer was KIA and a second WIA. The WIA had to be evacuated.

Throughout the month of February and March, "C" Company continued to provide close support for 3/7. Each company was assigned a four or five man team that accompanied them on all operations, sweeps and defensive position. In addition to providing engineer teams for the 4 companies in 3rd Battalion, 7th Marines, a team was also provided to G/2/7 which had been brought into supplement 3/7. Later F/2/7 replaced G/2/7 and a team was provided for G Company. In addition to the five engineer support teams, a headquarters element remained within the CP area.

On or about 20 February, it was decided that the water point had to be moved. The well, because it was on the LZ, was becoming dirty due to the sand being blown into it from the helicopters. Also the shower unit, which was near the ammunition dump had to be moved because the dump was to be expanded. Other water sources were scouted out. The feasibility of using the water from a natural spring on the side of Nui Dau, was checked but the output wasn't sufficient to supply the amount of water needed. Then what seemed to be an underground source was located. Upon digging in this area it was found that the water was replenishing itself as fast as it could be pumped out. It was decided to use this source as a new water point, as the only access to this area was through a small rice paddy and a cane field, a road had to be built to this area. Using the men in the CP group and the D-4 tractor this road was built. Finding the point of the least distance across the rice paddies, 3 culverts of 3' diameter and 15' long were laid. Sandbag headwalls were built and the culvert covered with fill by the D-4. The remainder of the road required only D-4 tractor work. The road took about four days to complete including the assembly of the culvert. Upon completion of the road, both the water point and showers were relocated and the old well capped. After about two weeks at the new site which was located at BT 84838, the water again began to run low. Well points were brought in and driven down about 10 feet. This gave a good output for about a week and then could not maintain enough output. About 30 meters away from this source, another hole was dug to try to locate the source of water. Three 40 pound cratering charges were used to open this hole. Also the D-4 tractor was used to deepen the hole. Enough water was then gotten to supply the needs for the remainder of the operation. The average amount of water used during the operation was 4,500 of fresh water per day and 3,000 gallons of shower water.

The D-4 tractor was used extensively during the entire operation. It was used to dig ammunition dump and fuel dump for both fuel bladders and bonded fuel. Roads throughout the Nui Dau CP area were built by the tractor. The tractor was also used to dig in living tents. During the 2½ month period the D-4 suffered very little downtime. During the period of 1 February to 7 April 1967, the tractor was deadlined for a total period of about 4 days. Some of this downtime period was due to awaiting parts, which were not on hand. Very good care was taken of the D-4. A mechanic who was also the alternate operator performed the PM's daily under the supervision of the Engineer Platoon Commander. The tractor accumulated

572 machine hours during the period of its use. This is an average of about $8\frac{1}{2}$ hours per day. The justification for the request of the D-4 tractor in a Division Engineer Battalion as part of its TE is that it can be made helicopter transportable. It was helilifted into the Nui Dang area from Chu Lai at the beginning of the operation, in fact by a CH-53 Helicopter. However upon completion of the operation, it was found that the CH-53 could not lift it out. This may have been due to the difference in the temperature from February 1 to April. It was lifted out after removing the shovel and tracks and a few other parts. When the tracks are removed, new tracks must be used so it would be impractical to move a D-4 tractor into an area for a short period of time.

The teams accompanying the companies were used extensively in blowing up friendly duds dropped by aircraft or dud artillery or mortar rounds. Also misfires of friendly ordnance was disposed of by the engineers. Booby traps were blown in place and enemy bunkers were blown up, time permitting as an area was passed. On February 11 two men accompanying "M" Company at BT 815692 found and destroyed one Chi Com grenade and one bamboo grenade booby trap. At the same time, two bunkers were blown with one satchel charge each. A cave complex was destroyed at BT 821407 using 800 pounds of shape charges. The charges were placed on top of the cave and the blast destroyed the cave by crushing it inward.

The operation continued through March with the platoon providing engineer support as before. A team accompanied "L" Company in An Luc BT 828385 found and destroyed a booby trapped 155 round with an M26 grenade detonator on 1 March. On about 3 March a team of engineers joined by engineers from 9th Engineers blew a cave complex at BT 835396. About 1200 pounds of demolitions were used. About a week later 5 bunkers were destroyed at BT 840389. North of Nui Dau the engineers destroyed 23 bunkers and 2 small cave complexes. 600 pounds of C-4 were used. Three complexes of sizes 322 feet, 130 feet and 60 feet were destroyed at BT 823401. Only 37 cratering charges were used because no more could be gotten. This just closed the entrances to the caves. A similiar incident occurred at BT 828411. Since enough demolition to destroy the cave complex of about 100 meters in length could not be obtained, the entrance was closed with about 120 pounds of C-4. A 250 pound bomb booby trapped was blown at BT 828385. Three spider holes were blown near the same area. Two fighting holes and 9 family bunkers were destroyed at Nui Dau. Also at Nui Dau a helmet was found just outside of the CP area. Underneath the helmet was a wire attached to the pin of an M26 grenade. The booby trap was destroyed in place. On about 18 March the engineers at Nui Dau began clearing a path for a mule trail and the northern portion of the hill. The existing trail was widened by use of Bangalore Torpedos. This was because of the RVN minefield that was left on the area of the hill. The engineers on Nui Dau also used demolitions to blow positions for bunkers and fighting holes about 10 cratering charges and 15 shape charges were used to do this.

Marines attached to "M" Company at BT 817398 gave classes on mines and booby traps to the company. Also the engineer team blew a cave complex using 5 cratering charges. Demolition work was done on the trail leading to Nui Dangto provide a path for ONTOS. A double apron fence was built around the "M" Company CP at BT 827402. A hedge row was blown with bangalores at Su Binh to provide fields of fire. "K" Company team operating in the area of BT 852395 blew one 100 pound bomb booby trapped. Three Chi Com booby traps were blown in the same area.

On March 30, two engineers were accompanying an "L" Company patrol in the area of BT 779399. As the patrol passed a hidden spider hole the sniper came out and shot at the patrol. One engineer was hit and killed.

On April 1, three engineers were with "G" Company at BT. Before setting up a night perimeter, the engineers were asked to check the area for booby traps after one man had set one off and was wounded. A booby trapped 105 round was found. It was marked to be blown later. A helicopter medivac was called to extract the WIA. While hovering over the hill, an explosion went off blowing up the helicopter. The wounded were carried off the hill and a third explosion went off. Later wires were found near the explosion which showed the bombs may have been command detonated type. This type of device could not easily have been detected by engineers in a visual search. On 2 April the engineers were told to destroy the remaining part of the damaged Huey helicopter. 100 pounds of C-4 was used to destroy the plane.

The CP group with the battalion at Nui Dang was performing engineer work for the battalion. A CO's bunker 24'X36' was built. The structure was built with 6'X12' lumber. One layer of 3'X12" was placed on the top and sides. Flap entrances were built on either side. A 12'X12' structure was built for the C&C hospital area. A 6'X12' structure was ~~used~~ with two layers of 3'X12" on the top was built. The CP group engineers also assisted in improving the perimeter defenses by placing tangle foot barbed wire around the 1500 meter perimeter. The engineers also layed in Claymore mines around the perimeter and instructed the infantry on its operation. Five faucets designed by the engineers were also placed around the perimeter between the outer and inner wires. These fire faucets were made of 55 gallon drums filled with gasoline mixed with napalm. The barrels were placed into the ground at a 45 degree angle. Underneath the barrel about on the middle of the barrel, blocks of 1 pound TNT was placed. Detonating cord was placed on top of the barrel around the top cut off to cut off the top upon detonation. In front of the barrel was placed a WP or incendiary grenade. The grenade, the TNT and the detonating cord were all connected together with electrical blasting caps in series. The faucet threw napalm in a 25 meter radius upon detonating. The detonation was accomplished by using a PRC-25 battery. Makeshift firing boards were made so that either the claymores or the fire faucets could be detonated by the guard in a bunker with a probe. Also the men in the CP group instructed the ammunition technicians on the proper way to use C-4 to explode grade 3 ammunition. The engineers also set up classes for other people joining the 3rd Battalion now in the field. This was requested because of the frequency that the units were encountering booby traps in the field. Classes were given on the type of booby traps encountered and the men were instructed how to locate a booby trap. Simulated booby traps were set up with firing devices for practical instruction. Classes were also given on the employment of claymore mines and demonstration shown of its use.

On about 29 March, platoon from "B" Company was sent to Nui Dang to construct an operating room for C&C. The "B" Company platoon was under the operational control of 2nd Platoon "G" Company. The building was a 24'X36' structure. The framework consisted of 12'X12" lumber for post and caps. Concrete footings were used and a concrete deck was built. The roof, two sides and concrete deck was finished before the project was secured due to termination of the operation. The operation secured on 7 April 1967.

11. Results: The company had four (4) WIA and two (2) KIA. Fifteen thousand (15,000) pounds of explosives were used to destroy nine (9) cave complexes, 20 booby traps and 120 type bunker emplacements. About 6500 board feet of lumber was used and 250 pounds of nails. Water output was 4,500 gallons per day of fresh water and 3,000 gallons per day of shower water. The D-4 tractor worked a total of 572 hours. In doing this the tractor work involved a total of 20,000 cubic yards of earth. About 3,000 feet of roads were built in the Nui Dang area.

12. Administrative Remarks: Resupply of engineer items were very slow. Lumber, culverts, and other construction material delayed projects for weeks. Resupply of demolition in the field was also very poor sometimes causing an improper or incompletestruction of enemy fortification. Maintenance support for the D-4 tractor was excellent. Parts and mechanics were sent whenever needed.

13. Special Equipment and Techniques: A D-4 tractor used because of its small size made it possible to be helilifted into this area. A D-4 tractor is not organic to a division engineer unit, but because of the remoteness of the area and because all supplies and personnel had to be brought in by air, this tractor was chosen. A great deal of ground work was necessary in this area such as ammunition and fuel bunkers and roadwork. The D-4 tractor's performance was excellent in that it did all of the work required on this operation with a minimum of breakdowns.

14. Commanders Analysis: Many infantry casualties were taken on this operation due to enemy booby traps. A well camouflaged booby trap mine is just as difficult for an engineer to discover as it is for an infantry man. It should therefore be stressed that the presence of engineers does not relieve in anyway the responsibility of each man to constantly be alert to the possibility of booby traps.

15. Recommendation: It is recommended that consideration be given in the planning phase of an operation, allotting time and for logistical support of engineer units that are to destroy enemy caves, bunkers and other fortifications. This would prevent the reuse of emplacements out of which they had previously been driven. All fortifications should be destroyed whenever possible as they are encountered during an operation.

J. E. McDonald
J. E. MCDONALD
By direction

DECLASSIFIED

COMPANY "A"
1st Engineer Battalion
1st Marine Division (Rein) FMF
FPO, San Francisco 96602

JCB/job
3000
8 May 1967

From: Commanding Officer
To: Commanding Officer, 1st Engineer Battalion

Subj: After action report

Ref: (a) DivO 3480.1
(b) Map Vietnam, Sheet 6658 IV, Series L701

1. Code Name: None
2. Dates of Operation: 1 through 3 May 1967
3. Location: 1st Battalion, 7 Marines TOAR, Vicinity of AT 957680
4. Command and Control Headquarters: Platoon from "A" Co, 3rd LVT's
WO TUNSTALL
5. Task Organization: Not Applicable
6. Supporting Force: Not Applicable
7. Intelligence: 1/7 - S-2
8. Mission: To provide combat engineer support to 3rd LVT's for a three day clearing mission.
9. Concept of Operation: One NCO and three men with ten pounds of demolition each were in support of 3rd LVT's. The clearing operation was coordinated by 1/7.
10. Execution: A four man engineer team departed this CP at 010500 H May67 to furnish support to 3rd LVT's. The clearing operation commenced at 01100 H May67.
A dud line charge was destroyed at 011600 H May67 with 2½ pounds C4
Destroyed a punki pit booby trapped with an M26 grenade with 2½ pounds C4
Destroyed 2 bunkers at 021400 H May67 with 10 pounds C4 each
Destroyed a dud line charge at 021600 H May67 with 2½ pounds C4
Destroyed booby trapped pubji pit with 2½ pounds C4
Returned to 1stEngrBn area at 031145 H May67
11. Results: Two punji pits, two bunkers and two line charges were destroyed with a total of 30 pounds of C4.
12. Administrative Remarks: None
13. Special Equipment and Techniques: None
14. Commanders Analysis: No unusual problems were encountered and the demolition work of this engineer team was routine and the use of engineers was executed properly by 3rd LVT's.

H. E. Itchkawich
H. E. ITCHKAWICH

Tab C

DECLASSIFIED

COMPANY "A"
 1st Engineer Battalion
 1st Marine Division (Rein) FMF
 FPO, San Francisco 96602

JCB/jcb
 3000
 9 May 1967

From: Commanding Officer
 To: Commanding Officer, 1st Engineer Battalion

Subj: Combat After Action Report

Ref: (a) DivO 3480.1
 (b) Map Vietnam, Sheet 6658 IV, Series L701

1. Code Name: Operation Yell
2. Dates of Operation: 18 Apr 1967 to 20 Apr 1967
3. Location: Hamlets of Ha Hong Tay (1) & (2), Coor 005395
4. Command and Control Headquarters: 2/1 (-)(Rein) - LtCol HEWLETT
 Reinforced by "C" Company 1/1
 Capt CARTER
5. Task Organization: Not Applicable
6. Supporting Force: Not Applicable
7. Intelligence: 2/1 - S-2
8. Mission: To provide necessary close combat support and engineer support to 2/1 (-)(Rein).
9. Concept of Operation: Two NCO's and six men with 10 pounds of demolition each were assigned to 2/1 (-)(Rein).
10. Execution: An eight man engineer team departed the 2/1 CP at 0700 18 Apr 1967 to furnish close combat engineer support to 2/1 (-)(Rein). During the operation, 10 bunkers were destroyed with 5 pounds of C4 each, one M79 round was destroyed with $\frac{1}{2}$ pound C4, one 81mm mortar round destroyed with $\frac{1}{2}$ pound C4 and one fighting hole destroyed with $7\frac{1}{2}$ pounds of C4. The operation terminated at 1200 on 20 April 1967.
11. Results: ~~Don~~ bunkers, one 81mm mortar round, one M79 round and one fighting hole were destroyed using $58\frac{1}{4}$ pounds of C4.
12. Administrative Remarks: Not Applicable
13. Special Equipment and Techniques: Not Applicable
14. Commanders Analysis: No unusual problems were encountered during Operation Yell and the demolition work of the engineers was routine.

H. E. Itchkawich
 H. E. ITCHKAWICH

Tab D

COMPANY "A"
1st Engineer Battalion
1st Marine Division (Rein) FME
FPO, San Francisco 96602

JCB/jcb
3000
9 May 1967

From: Commanding Officer
To: Commanding Officer, 1st Engineer Battalion

Subj: Combat After Action Report

Ref: (a) DivO 3480.1
(b) Map Vietnam, sheet 6658 IV, Series L701

1. Code Name: Operation Union
2. Dates of Operation: 18 Apr 1967 only
3. Location: Coor BT 056586 to BT 020290
4. Command and Control Headquarters: 1st MarDiv Motor Transport
Convoy Commander - Major BARKLY
5. Task Organization: Not Applicable
6. Supporting Force: Not Applicable
7. Intelligence: Not Applicable
8. Mission: To provide necessary engineer support to assist a convoy coordinated by 1st MTBn from Dien Ban to Nui Loc Son.
9. Concept of Operation: One NCO and 3 men with 2 mine detectors and 150 pounds of demolitions in support of convoy.
10. Execution: A four man engineer team departed the 1/1 CP at 0800 18 A 18 April 1967 with the convoy to pick up ARVN troops at Dien Ban . Departed Dien Ban at 1000 18 Apr 1967 for Nui Loc Son. No engineer support was required. Returned to 1/1 CP at 1600, 18 Apr 1967.
11. Results: No engineer support required.
12. Administrative Remarks: None
13. Special Equipment and Techniques: None
14. Commanders Analysis: No unusual problems were encountered on this operation.

H. E. Itchkawich
H. E. ITCHKAWICH

Tab E