

CONFIDENTIAL



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

RECEIVED
JAN 9 1970
D

IN REPLY REFER TO

AGDA (M) (5 Dec 69) FOR OT UT 693134

17 December 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 25th Infantry Division Artillery, Period Ending 31 July 1969 (U)

SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation in accordance with paragraph 4b, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, within 90 days of receipt of covering letter.
2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
as

DISTRIBUTION:

Commanding Generals

US Continental Army Command
US Army Combat Developments Command
US Army Materiel Command

Commandants

US Army War College
US Army Command and General Staff College
US Army Air Defense School
US Army Armor School
US Army Aviation School
US Army Combat Surveillance School
US Army Electronic Warfare School
US Army Engineer School
US Army Field Artillery School
US Army Infantry School
US Army Missile and Munitions School
US Army Ordnance School
US Army Signal School
US Army Southeastern Signal School

This material contains information affecting
the national defense of the United States
(Title 18, U.S.C. Sec. 793 and 794),
the transmission or revelation of which in
any manner to an unauthorized person is
prohibited by law.

SB82.25

Declassified and approved for release by NSA on 09-11-2013 pursuant to E.O. 13526

AD506350

DISTRIBUTION (Cont'd)

US Army Special Warfare School

US Army Transportation School

Copies furnished:

Office, Chief of Staff, US Army

Deputy Chiefs of Staff

Chief of Research and Development

Assistant Chiefs of Staff

Chief of Engineers

OSD(SA) Assistant for Southeast Asia Forces

Office, Joint Chiefs of Staff

Commanding Generals

US Army Electronics Command

US Army Weapons Command

III Corps

Deputy Chief of Staff, Air Force, Plans & Operations

Commandant of the Marine Corps

Senior Army Representative, Marine Corps Development & Education Command

USAF Air Ground Operations School

The Air University Library

Director, Weapons Systems Evaluation Group

Defense Documentation Center

Security Officer, Hudson Institute

USAF Project RAND

Commanding Officers

US Army Limited War Laboratory

US Army Logistics, Doctrine Systems & Readiness Agency

US Army Mobility Equipment Research & Development Center

25th Infantry Division Artillery

5

DEPARTMENT OF THE ARMY
HEADQUARTERS 25TH INFANTRY DIVISION ARTILLERY
APO San Francisco 96225

AVDCDA-HO

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31
July 1969. RCS CSFOR-65 (R1)

SEE DISTRIBUTION

1. Section 1, Operations: Significant Activities

a. General. During the period 1 May - 31 July 1969, the 25th Infantry Division Artillery continued combat operations in support of Operation Toan-Thang (Complete Victory) III. Action was heaviest in the Tay Ninh area and in the "Citadel" (center of mass XT 5524). Reinforcement training of replacements, on the job, and proficiency training continued as described in the 31 October 1968 report.

b. Organization for combat. See Inclosure 1.

c. Operations and activities.

(1) 7th Battalion 11th Artillery

(a) During the period 1 May 1969 through 31 July 1969 the 7th Battalion, 11th Field Artillery continued Phase III of operation Toan Thang (Complete Victory) in the Tay Ninh area. The battalion continued to use Tay Ninh Base Camp as its center of operations. In addition to providing direct support (DS) to the 1st Brigade of the 25th Infantry Division the battalion also provided artillery support to ARVN Airborne and Vietnamese Marine units working in the Tay Ninh area and US Navy elements patrolling the Vam Co Dong River. In order to effectively support operations of the 1st Brigade it was necessary to move supporting artillery 59 times. During the reporting period there were two changes in the 1st Brigade area of operations (AO) which resulted in the addition of 5 supporting batteries (including 3 with a direct support mission) and 3 maneuver battalions. At the beginning of May, A/7/11 was located at Fire Support Base (FSB) Crook (XT 0559) with the mission of direct support to the 3/22 Infantry; B/7/11 was located in two places with 4 howitzers at FSB Rawlins III (XT 2948) and 2 howitzers at Patrol Base (PB) Frontier City (XT 2029); C/7/11 was located at FSB Buell (XT 2153) III with the mission of direct support to the 4/23 Infantry (Mechanized). In addition,

FOR OTAT
693134

1

CONFIDENTIAL

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS

Inclosure

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31 July 1969. RCS CSFCH-65

the 7th Battalion, 11th Field Artillery controlled the fires of the following batteries: B/2/77 located at FSB Sedgwick (XT 2431) (Direct Support to the 4/9 Infantry), A/6/15 located at FSB Washington (XT 1456) General Support Reinforcing (GSR), B/1/27 located at FSB Stoneman (XT 3037) (GSR), and the 105mm battery of the Philippine Civic Action Group, located at Tay Ninh Base Camp.

(b) On 3 May changes in artillery support missions necessitated the following moves: C/7/11 having moved from FSB Buell III to Tay Ninh Base Camp the previous day, displaced by air from Tay Ninh Base Camp to FSB Sedgwick II (XT 2432) and became direct support to 4/9 Infantry. B/2/77 moved by air from FSB Sedgwick to Dau Tieng to join its parent battalion. B/7/11, still located at FSB Rawlins III, became direct support to 4/23 Infantry.

(c) On 15 May another series of battery moves changed the task force organization. On the morning of 15 May, B/7/11 moved to vicinity XT 3548 to support an operation by 4/23 Infantry. At the conclusion of the operation B/7/11 moved to FSB Buell III (XT 2153) and assumed responsibility for the fire support of that base. At the same time A/6/15 moved from FSB Washington (XT 1456) to vicinity XT 1361 to support an operation by 3/22 Infantry. At the completion of the operation A/6/15 moved to FSB Rawlins III (XT 2948). B/1/27 moved by road from Cu Chi to Tay Ninh Base Camp and after linking up with a security force moved to FSB Washington and became GSR to 25th Infantry Division Artillery. The two howitzers from B/7/11 located in PB Frontier City returned to Tay Ninh Base Camp by air and the following day rejoined their battery at FSB Buell III.

(d) The month of June was highlighted by 3 ground attacks on 1st Brigade fire support bases and fighting by maneuver elements in the streets of Tay Ninh City. In an effort to counter rocket/mortar attacks and detect infiltration into the Tay Ninh area 3 AN/MPQ-4A Radars and 1 AN/TPS-25 Radar were added to the Q-4 and TPS-25 radars in Tay Ninh Base Camp. One Q-4 was sent to FSB Buell III, one to FSB Washington with two remaining in Tay Ninh Base Camp. The additional TPS-25 was eventually located at FSB Rawlins III.

(e) On 4 June B/1/27 located at FSB Stoneman (XT 3037) and D/3/13 located at Cu Chi moved to FSB Hull (XT 2638) in a combined 25th Div Arty and 4/9 Infantry operation vicinity XT 1335. Intelligence reports indicated a regimental size VC force in the vicinity and the mission of the artillery was to saturate the area with 155mm and 8" fire. B/1/27 expended 224 HE and D/3/13 expended 108 8". No contact was established and at 1540 hours both batteries were given march order and returned to their respective locations.

(f) On 5 June two companies from 4/9 Infantry established and maintained contact with an estimated VC battalion in the Renegade Woods vicinity XT 2931. C/7/11 and B/1/27 fired in support of the contact throughout the day with

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31 July 1969. RCS CSFOR-65 (R1)

C/7/11 expending 790 HE and 15 WP and B/1/27 expending 220 HE and 5 WP. C/7/11 was credited with 10 Killed by Artillery (KBA) and B/1/27 was given 7 KBA. Total body count was 74.

(g) At 0300 on 6 June FSB Crook reported incoming rockets, mortars, recoilless rifle, RPG and small arms fire coming mainly from the east. This was followed up by a ground attack from an estimated VC battalion. A/7/11, A and B/2/32 and C/1/27 fired in support. A/7/11 expended 639 HE, 39 Fire-cracker (FC) and 45 Illumination rounds and were credited with 14 KBA; C/1/27 expended 179 HE and was credited with 6 KBA; A/2/32 expended 48, 175's and received 2 KBA; B/2/32 fired 9 FC and was given 1 KBA. Total body count was 76.

(h) At 0915 on 6 June the 4/23 was reported in contact in Tay Ninh City vicinity XT 235538. No artillery was employed as grid was in a no fire zone. 4/23 remained in sporadic light and heavy contact throughout the day but conditions did not warrant the Commanding General's clearance until 1740. At that time A/6/15, B/7/11, C/1/27, and B/2/32 were given fire missions. At 1920 contact was broken. A/6/15 expended 112 HE, B/7/11 expended 193 HE, C/1/27 expended 14 HE and B/2/32 expended 6 8". No surveillance was given.

(i) At 0250 on 7 June FSB Crook received 359 rounds of mixed mortar and RPG fire followed by a ground attack by an estimated VC regiment with the main attack coming from the east. Contact continued until 0630 at which time all batteries were given end of mission. A/7/11 expended 615 HE, 4 FC and 45 Illumination; C/1/27 expended 268 HE; A/2/32 expended 7 175mm; B/2/32 expended 40 8" and 5 FC, and ARVN 155's from Ben Sol expended 40 rounds. Artillery was credited with 108 KBA out of a total of 323 VC KIA.

(j) On 7 June the 1st Brigade area of operations was extended east to the 1st Division boundary on the Saigon River.

(k) On 10 June at 0503 hours, B/7/11 fired the 750,000th round fired by the 7th Battalion, 11th Field Artillery in Vietnam. The round was fired on a suspected enemy location detected electronically.

(l) At 0225 on 19 June FSB Washington reported receiving small arms, mortars, rockets and RPG fire from an estimated VC battalion. At 0615 contact was broken and all batteries received end of mission. B/7/11 expended 195 HE, 46 FC, 110 Illumination and was credited with 2 KBA. A/2/32 expended 6 FC and were credited with 1 KBA. B/2/32 expended 18 8" and 5 FC and were credited with 1 KBA. C/1/27 fired 195 Killer Junior (KJ) and 23 FC and were given 2 KBA. Total body count was 35 VC KIA.

AYDODA-HD

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31 July 1969. RCS CSFCR-65 (R1)

(m) At 0840 on 19 June C/4/9 reported in contact vicinity XT 209380 and remained in contact until enemy positions were overrun at 1639. B/1/27 expended 148 HE and was credited with 20 KBA; C/7/11 expended 399 HE and 10 FC and were credited with 14 KBA. Total body count for the day was 72 VC KIA.

(n) At 1920 on 19 June 3/4 Cav reported contact in Tay Ninh City vicinity XT 267407. At 1045, the Commanding General's clearance was obtained and A/6/15 and B/1/27 were given fire missions. At 2100 all batteries were given end of mission and A/6/15 was given an Illumination mission. Total expenditures were C/7/11 - 312 HE, A/6/15 - 107 HE and 155 Illumination, and B/1/27 - 244 HE. B/1/27 was credited with 8 KBA and C/7/11 was given 2 KBA.

(o) On 20 June in order to provide maximum artillery support for the US Navy, the 7th Battalion, 11th Field Artillery dispatched a liaison officer to the Navy headquarters at Ben Keo south of Tay Ninh.

(p) On 24 June A/2/77 located at FSB Wood (XT 4434) was attached to the 7th Battalion, 11th Field Artillery with the mission of direct support to the 2/22 Infantry (Mechanized). On the same day C/2/77 moved from Dau Tieng to FSB Hunter (XT 3742) and was given the mission of direct support to the 2/34 Armor which was providing security for Rome Plows operating in the vicinity of the Crescent (XT 4352). As C/2/77 moved into FSB Hunter, B/2/77 moved out enroute to Cu Chi.

(q) On 27 June B/2/13 moved to FSB Hunter and became direct support for the 2/34 Armor. C/2/77 moved from FSB Hunter to Cu Chi by road.

(r) The month of July brought a total of 11 batteries under the control of the 7th Battalion, 11th Field Artillery. Of these 11 batteries, 6 supported the 1st Brigade maneuver battalions or units attached to the 1st Brigade. At the beginning of the month A/7/11 located at FSB Crook was supporting the 3/22, B/7/11 located at FSB Buell III was supporting the 4/23 Infantry (Mechanized), C/7/11 located at FSB Sedgwick II was supporting the 4/9 Infantry, B/2/13 located at FSB Hunter supported the 2/34 Armor, and A/2/77 located at FSB Wood supported the 2/22 Infantry (Mechanized). In addition, A/6/15 located at FSB Rawlins III, B/1/27 located at FSB Stoneman, and C/1/7 located at FSB Washington were general support reinforcing 25th Infantry Division Artillery.

(s) On 1 July B/7/11 located at FSB Buell III was given the mission to move to vicinity XT 3358 to support a contact by C/4/23 Infantry on the eastern slopes of Nui Ba Den (mountain). B Battery arrived at 1355 and was laid and ready to fire at 1403. At 1645 B Battery was given march order after expending 479 HE in support of the contact. No surveillance was given.

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Art. For Period Ending 31 July 1969. HQ GFCR-35 (R1)

(t) On 5 July C/3/13 moved from Cu Chi to Tay Ninh Base Camp, retaining the mission of general support 25th Infantry Division with 7th Battalion, 11th Field Artillery planning its fires.

(u) On 8 July A/1/27 moved from Dau Tieng to FSB Bragg III (AT 3558) with the mission of direct support to the 2/34 Armor which had moved the Rome Plow operation further to the North. The 7th Battalion, 11th Field Artillery assumed control of the fires of A/1/27. B/2/13 located at FSB Hunter reverted to GSR.

(v) On 9 July the 2/2 Infantry (Mechanized) from the 1st Infantry Division moved into FSB Buell III under the operational control of the 1st Brigade. B/7/11 located at FSB Buell III assumed mission of direct support to the 2/2 Infantry and A/6/15 located at FSB Rawlins III became direct support to the 4/23 Infantry (Mechanized).

(w) On 13 July 2/2 Mechanized Infantry established contact with an unknown size VC force vicinity XT 2760. B/7/11 was given the mission to move to FSB Bragg II (XT 3958) to support the contact. At 1430 contact was broken and at 1645 all artillery ceased. B/7/11 was given march order at 1715 and returned to FSB Buell III at 1842. B/7/11 expended 24 IE and 59 Riot Control Agent CS rounds. No surveillance was given.

(x) On 15 July B/7/11 moved to vicinity FSB Buell (XT 2358) to be co-located with an ARVN Airborne battery to support a combined 3 day operation by the 2/2 Mechanized Infantry and ARVN Airborne vicinity XT 1860.

(y) In order to reduce the span of control involved in supporting 6 maneuver battalions and a heavy commitment to the Navy, the battalion requested another artillery headquarters be made available to aid in controlling the fires in support of the 2/22 Infantry (Mechanized) and the 4/9 Infantry. The 2/32 Field Artillery (CS, II Field Force) was given the mission and on 15 July began planning the fires of C/7/11, A/2/77, B/1/27 and B/2/13.

(z) On 16 July C/3/13 moved from Tay Ninh Base Camp to FSB Miles (XT 2963) and assumed direct support mission of 2/34 Armor. A/1/27 moved from FSB Bragg III to Tay Ninh Base Camp and became general support reinforcing to the 25th Inf Div Arty.

(aa) On 17 July B/7/11 returned to FSB Buell III upon conclusion of the 3 day operation in the "Fingers" vicinity XT 1860.

(bb) On 20 July the 1st Brigade boundary was extended to the north of Nui Ba Den to include FSB St Barbara (XT 2769). One platoon of 105 howitzers from C/6/15 moved into the Fire base with the existing artillery from A/2/32 Field Artillery. The mission of the platoon is general support, II Field Force.

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Artillery For Period Ending 31 July 1969. RCS CSFOR-65 (R1)

(cc) On 21 July the 2/2 Infantry (Mechanized) moved out of the 1st Brigade AO and back under the control of 1st Infantry Division. F/7/11 located at FSP Buell III resumed the fire support of the 4/23 Infantry (Mechanized) and B/6/15 became general support reinforcing 25th Infantry Division Artillery.

(dd) At 0635 on 25 July A/1/29 departed Tay Ninh Base Camp and returned to Dau Tieng under the control of the 1/27 Field Artillery. At 1000 hours C/3/13 closed station at FSP Miles and returned to Tay Ninh Base Camp.

(ee) On the morning of 28 July E/2/13 departed FSP Hunter (T3742) and left the 25th Division T.O. At the same time B/6/15 moved into FSP Hunter and assumed the mission of general support reinforcing 25th Infantry Division Artillery.

(ff) Throughout the period 1 May 1969 - 31 July 1969 the 7th Battalion, 12th Field Artillery effectively controlled the fires of as many as eleven organic or supporting batteries in support of six infantry maneuver battalions. This demonstrates the high degree of professionalism and flexibility that is required by the individual batteries in the complex and ever changing situation in Vietnam.

(2) 1st Battalion 8th Artillery

(a) The Battalion continued direct support of the 2d Brigade 25th Infantry Division in operation Complete Victory III. On 1 May the Battalion attacked an enemy village vicinity XT5726 with 462 rounds from organic and supporting batteries. The mission was adjusted by an aerial observer and although no enemy bodies were seen, evidence indicated that possibly 30 enemy were killed in the attack. A total of 16 structures were destroyed & damaged.

(b) Action was scarce for over ten days; then, on 13 May, 2d Battalion, 12th Infantry made contact with enemy forces vicinity XT5731. The 1/8 Artillery directed 467 rounds in support of the ground troops and was credited with 15 of the 50 enemy bodies counted after the action. Five days later the 2/12 Infantry again contacted an enemy force vicinity XT5226. A total of 300 rounds of artillery were fired in support but no enemy bodies could be located when contact was broken.

(c) A short range fire fight at noon on 5 June between Delta Company 2/12 Infantry and an unknown size enemy unit developed into a two day contact in the Citadel, vicinity XT5725. The Artillery forward observer with the company, 17 persons, was wounded on the first afternoon and the battalion and brigade artillery liaison officers adjusted 1/8 Artillery and supporting batteries from command and control helicopters. As the battle developed, A and C companies 1st Battalion 5th Infantry (Mech) and B/2/12 Infantry moved in to reinforce D/2/12. All elements maneuvered to make room for artillery and air strikes to be placed on the enemy positions once they had been fixed. At the conclusion of the second day of contact, enemy forces withdrew leaving behind 77 bodies

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31 July 1969. PCS CS FOF-45 (R1)

and 3 captured North Vietnamese Army soldiers. The 2345 rounds of artillery fired were officially credited with killing 36 of the bodies counted.

(d) Elements of the 2d Battalion, 14th Infantry vicinity XT 5818 received sporadic rocket propelled grenade (RPG) and small arms fire on the night of 22 June. 1/8 Arty directed general support 155mm fire from 3d Battalion 13th Artillery into the area. Surveillance revealed 8 enemy KIA and 22 others killed by infantry and gunships. 344 rounds of artillery were fired.

(e) Late on the afternoon of 19 July, 1/8 Arty supported an airmobile assault by Company B, 2/12 Infantry vicinity XT 5927. Aerial observers sighted enemy personnel and structures at several points in the area of the infantry assault and engaged them with artillery. All together 820 rounds of artillery were expended resulting in 20 enemy killed (body count) and 9 structures destroyed. The infantry captured 2 enemy soldiers, detained 8 suspects and captured or destroyed numerous documents, weapons and supplies.

(f) During the quarterly reporting period the three batteries of 1st Battalion 8th Field Artillery were credited with 149 VC/NVA (BC), 17 VC/NVA KIA (poss); 35 buildings, 14 bridges, 45 bunkers, 5 fortifications, and 2 sampans destroyed and 54 secondary explosions.

(3) 2d Battalion, 77th Artillery

(a) The 2d Battalion, 77th Artillery was actively engaged in direct support of 3d Brigade, 25th Infantry Division in operation Toan Thang (Complete Victory) III which was continued from the previous quarter. During this period C/2/27 Infantry and D/1/27 Infantry established contact with an NVA Battalion sized force; A/2/22 Infantry and C/2/22 Infantry prevented an enemy attack on the Dau Tieng resupply convoy; 1/27 Infantry and 2/22 Infantry established contact with an NVA Battalion sized force. Each time 2d Battalion 77th Artillery, with supporting artillery units, provided the fire superiority to defeat the enemy. Reinforcement training of replacements as well as on-the-job and proficiency training continued.

(b) At 0730 hours, 9 May 1969, C/2/22 Infantry and 1/27 Infantry left their night location (NL) vic XT 5646, and slowly moved southward without incident. At 1038 hours, the units began receiving sniper fire which soon became heavy small arms, automatic weapons, and RPG fire vic XT 560454. Fire was immediately returned with organic weapons and artillery. Artillery units firing were B/2/77, 3/2/77, A/1/27 and C/2/32. This contact continued until 1900 hours when the units moved back to their NL. During the contact, 16 casualties were reported as 1 KIA and 23 US MIA and 3 Armored Personnel Carriers damaged. A sweep of the contact area was made at daylight with the following results: 36 NVA KIA (BC) by small arms, 20 NVA KIA (PC) KIA, and 10 NVA KIA (BC) KB Air, for a total of 66 NVA (BC) with 40 NVA KIA (poss).

CONFIDENTIAL

AVDCDA-HO

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Artv For Period Ending 31 July 1969. RCS CSFOR-65 (R1)

The following enemy equipment and supplies were captured: 47,690 lbs of polished rice, 1,400 lbs of salt, 1 RPD light machine gun (LMG), 9 AK-47 rifles, 4 AK magazines, 3 flashlights, 24 60mm mortar rds, 11 82mm mortar rds, 4 Bangalore torpedoes, 15 RPG-7 rds, 16 RPG-7 boosters, 4 rifle grenades, 3 ChiCom hand grenades, 50 rds of AK ammo, 22-82mm mortar fuzes, and 200 rds of SKS ammo. The final artillery expenditures for the contact were B/2/77 - 1302 HE, C/2/77 - 1334 HE, A/1/27 - 757 HE and C/2/32 - 150 HE.

(c) At 0955 hours, 12 May 1969, A/2/22 Infantry and C/2/22 Infantry, sweeping highway 239 received small arms and automatic weapons fire via XT 462469 from an estimated enemy squad. Fire was returned with organic weapons and artillery. Units firing were B/2/77 and C/2/77. The enemy force was attempting to set up its position to attack the Dau Tieng resupply convoy. At 1245 hours, the ground units received a heavy barrage of small arms, automatic weapons, and RPG fire. A/1/27 and C/2/32 were called to provide additional artillery support. The ground elements received heavy intermittent enemy fire until 1830 hours. During the contact, US casualties were reported as 1 US KIA and 23 US WIA; 2 Armored Personnel Carriers heavily damaged; and 1 Flame Tank heavily damaged. A sweep of the contact area was made with the following results: 14 NVA KIA (BC) KB Air, for a total of 29 NVA KIA (BC) with 30 NVA KIA (poss). The following enemy equipment was captured: 1 AK-47 rifle, 2 RPD LMG, 1 60mm mortar, 40 RPG-2 rounds, 1 field telephone, 1 RPG-2 launcher, and 1 NVN shovel. The final artillery expenditures during the contact were A/2/77 - 354 HE, B/2/77 - 1497 HE, C/2/77 - 350 HE, A/1/27 - 827 HE, and C/2/32 34 HE.

(d) At 0645 hours, 11 June 1969, B/1/27 Infantry received 12-15 60mm mortars and small arms fire at their NL via XT 425485. The enemy force was engaged with organic weapons and artillery. Units firing were B/2/77 and C/2/77. At 0855 hours, the enemy fire became very heavy. LTC Lewis, then Commanding Officer, 2/77 Artv, flying over the contact area directed the Dau Tieng Q-4 counter-mortar Radar to search the area. Mortars were picked up coming out of XT 42674865. LTC Lewis adjusted B/2/77 and C/2/77 on the mortar location and it was completely silenced. Then A/1/27 and C/2/32 were adjusted on the bunker complex which concealed the NVA Battalion sized force. At 1055 hours, C/1/27 Infantry, B/2/22 Infantry and C/2/22 Infantry were brought in to reinforce B/1/27. This contact continued sporadically, and at times was extremely intense, until 1930 hours. During the contact, US casualties were reported as 3 US KIA and 29 US WIA. A sweep of the contact area was made at daylight with the following results: 62 NVA KIA (BC) and 3 NVN POW. The following enemy equipment was captured: 1 82mm mortar, 1 60mm mortar, 4 AK-47 rifles, 2 SKS rifles, 2 RPG-7 launchers, 1 .51 cal machine gun mounted on wheels, 6 ChiCom LMG, a large quantity of medical supplies, 2 pounds of marijuana, and 3 pounds of enemy documents. The final artillery expenditures were B/2/77 - 48 HE, C/2/77 - 2139 HE, A/1/27 - 1076 PE, and C/2/32 - 154 HE.

1. VDCDA-HO

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31 July 1969. RCS CSFOR-65 (R1)

(e) On approximately 15 May 1969, 2/77 Arty received word that it was scheduled to be moved to Cu Chi and become operational there by 30 June 1969. On 27 June, the FDC closed station at Dau Tieng as Headquarters Battery personnel moved to Cu Chi. On the same day, B/2/77 moved to FSB Jackson (XT 4216) and C/2/77 moved to FSB Keene (XT 6303). On 30 June 1969, the FDC became operational and once again was providing timely and accurate fire upon the enemy.

(f) Personnel and Logistics

1 Personnel status steadily improved. The Battalion reached 98% of its authorized strength by the close of the fourth quarter of fiscal year 1969. During the quarter, 5 awards for valor (including one Silver Star and one Bronze Star), 9 awards for achievement and 55 service (including one Legion of Merit) awards were recommended for members of the Battalion.

2 During the past quarter logistic operations consisted of coordinating resupply activities in support of the firing units. Ammunition expenditures have decreased greatly and the firing units are stocking less ammunition. Requisitioning has continued at normal pace and supplies of all classes have been regularly received.

(g) Intelligence Operations

1 Throughout the period of 15 April - 27 June, the frequent mortar/rocket attacks resulted in increased emphasis on effective employment of counter-mortar radars. To enhance this employment and in an effort to discourage the indirect fire attacks, the battalion conducted from 2 to 8 Time on Target (TOT) missions nightly on confirmed and suspect rocket locations. It is estimated that this employment of TOT's decreased the number of indirect fire attacks on Dau Tieng Base Camp by one-third.

2 During this quarter, numerous reports were received concerning enemy bunker complexes and fighting positions. Numerous recon by fire missions with 8" and 155mm were conducted by the battalion. 368 8" rounds and 651 155mm rounds were expended with 155 bunkers destroyed; and 9 fighting positions destroyed.

(h) Civil Affairs. The 2d Battalion, 77th Artillery medical section remained active in MEDCAPS and civic action programs. MEDCAPS were conducted on a recurring basis in three areas, namely, AP-4 in Dau Tieng (XT 4847); AP-5 in Dau Tieng (XT 4847); and village 2 (XT 5148) in the Michelin Rubber Plantation. In addition, as in the last quarter, sanitary surveys were conducted in village 2 in an attempt to correct deficiencies. Corrections were coordinated with the Tri-Tam District Advisor and the 3d Brigade S-5 section.

AVDCDA-HO

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Artw For Period Ending 31 July 1969. RCS CSFOR-65 (R1)

(4) 3d Battalion, 13th Artillery

(a) During the past quarter Battery A conducted a move from FSB Patton (XT 5921) to FSB Patton II (XT 5819). The mission assigned to Battery A throughout the reporting period was General Support Reinforcing the fires of the 1st Battalion 8th Artillery. During this period Battery A received credit for destroying 36 enemy structures, damaging 10 enemy structures, 22 secondary explosions, destroying 34 bunkers, damaging 3 bunkers, 71 VC/NVA KBA (BC), 9 VC/NVA KBA (poss), destroying 8 AK-47's, 1 RPG launcher, 15 fighting positions, 120 meters of treeline, and 20 meters of trenchline, and uncovering 1 tunnel complex.

(b) Battery B, located at FSB Hammon (XT 4123) throughout the quarter, displaced four tubes to FSB Houston (XT 4307) on 31 July 1969 in support of 3d Brigade operations. During the reporting period Battery B received credit for 13 secondary explosions, 46 VC/NVA KBA, and 11 bunkers destroyed. A change of command ceremony was held on 26 June 1969 at Battery B at which time Captain Hugh H. Hanna assumed command from Captain Michael J. Cox.

(c) On 5 May 1969 Battery C moved from Fire Support Base Meade (XT 6012) to FSB Butler II (XT 5405) in support of 2d Brigade operations. On 29 May 1969 this Battery participated in the Lightning Immediate Destruction (LID) force in conjunction with two (2) Dusters from the 5th Battalion 2d Artillery in support of ground reconnaissance conducted by the 1st Battalion 5th (Mech) Infantry. The LID force fired direct fire during the operation receiving credit for six (6) body count, one (1) hut destroyed and a possible bunker complex caved in. On 1 June 1969 Battery C participated in another LID force operation, once again in support of the 1st Battalion 5th (Mech) Infantry. The task organization for this operation was the same as that of the first operation. For this operation, the LID force received credit for one secondary explosion and one enemy possibly killed.

(d) On 5 July 1969 Battery C moved from FSB Meade to Tay Ninh Base Camp. For this move Battery C was released from its mission of General Support Reinforcing (GSR) the fires of the 1st Battalion 8th Artillery and became GSR to the 7th Battalion 11th Artillery. On 16 July 1969 Battery C moved from Tay Ninh Base Camp to FSB Miles (XT 2963) to support 2d Battalion, 34th Armor Recon Plow operations. On 25 July the Battery moved from FSB Miles back to Tay Ninh Base Camp to support 1st Brigade operations. During the Battery's stay at Tay Ninh Base Camp it was credited with 15 VC/NVA body count, several secondary explosions and destruction of numerous bunkers.

(e) Battery D displaced from FSB Stuart (XT 4919) to FSB Stoneman (XT 3037) 14 April 1969 in support of 1st Brigade operations. The Battery remained at FSB Stoneman until 13 May 1969 at which time it returned to FSB Stuart III. On 4 June 1969 the Battery moved to FSB Hull (XT 2638) for a one day operation in support of the 1st Brigade. One section from Battery D displaced to

CONFIDENTIAL

AVDCDA-HO

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31 July 1969. RCS CSFOR-65 (R1)

FSB Devin (XT 5417) in support of 2d Brigade operations in the Ho Bo Woods (XT 6329) on 2 July 1969 and returned to Fire Support Base Stuart III to FSB Devin to continue the General Support mission to the 25th Infantry Division. On 31 July 1969 the remaining platoon at FSB Stuart III displaced to FSB Hampton to continue its mission of General Support to the 25th Infantry Division. A change of command ceremony was held on 26 June 1969 at Battery D at which time Captain Morris J. Taylor assumed command from Captain Lawrence E. Lalickor.

(f) Mortar training was conducted by the 3d Battalion 13th Field Artillery for elements of the 3d Squadron 4th US Cavalry during the period 10 June to 17 June 1969. A 15 hour block of instruction covering all aspects of 4.2 mortar training was presented by the conference method allowing for a question and answer period at the end of each class. A live firing exercise was conducted to give students experience in computing and firing missions.

(5) Headquarters and Headquarters Battery

(a) Personnel and logistics support of 25th Infantry Division Artillery continued to be adequate and effective. Colonel Don D. Stedham assumed command from Colonel John S. Wieringa Jr. in ceremonies at Cu Chi Base Camp on 22 July.

(b) Intelligence Operations.

1 More emphasis on offensive employment of Countermortar radars was required during this period due to intelligence regarding an increased threat to Tay Ninh City. In order to provide increased coverage for this area, the 258th Field Artillery Detachment (Radar) attached, was moved from FSB Patton (XT 5921) to FSB Washington (XT 1456). Upon evacuation of the 7th Bn, 11th Arty's organic AN/MPQ-4A Radar to CONUS for repair, a countermortar radar from the 2d Bn, 40th Arty, 199th LIB was placed in a CSR role in Tay Ninh. At the end of June, the organic counter-mortar radar of the 2d Bn, 77th Arty was deployed from Dau Tieng to FSB Buell (XT 2153) to counter the threat from the Nui Ba Den (mountain) area. The 260th FA Det (Radar) at FSB Mahone (XT 5437) which was OPCON to the 25th Infantry Division Artillery, was released to II FFV Artillery also at this time. The AN/MPQ-4A radar of 1st Bn, 8th Artillery was moved from Cu Chi Base Camp to FSB Patton to cover the area formerly covered by the 258th FA Det. In July the takeover by the 3d Brigade, 25th Infantry Division of the Bac Trai, Duc Hoa area (center of mass, XT 5701), required the displacement of the countermortar radar of the 2d Bn, 77th Arty from FSB Buell to the newly constructed FSB Chamberlain (XS 5598). The 7th Bn, 11th Arty received a replacement radar in July and it was emplaced in Tay Ninh. A total of 42 hostile mortar/rocket sites were located by the five countermortar radars during this period.

AVDCDA-HD

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty For Period Ending 31 July 1969. ECS CSFOR-65 (R1)

2 The surveillance radar program was also greatly effected during this period. The Division Artillery organic AN/TPS-25 radar was deployed from Go Da Hau (XT 3825) early in June to Tay Ninh. Later in June, the 265th FA Det (Radar), attached, was moved from FSB Patton to FSB Puell and thence to FSB Rowles III (XT 2948). In late July, with the threat to Tay Ninh apparently lessening, the 265th FA Det was again moved to FSB Patton II (XT 5819). The 25th Infantry Division assumption of operational control of the 3d Brigade, 9th Infantry Division late in July, resulted in the acquisition of another AN/TPS-25, located at Thu Thua, and five AN/PPS-5's, deployed throughout the 3d Bde, 9th Division area. A total of 479 radar sightings were made by the Ground Surveillance radars during this past quarter.

3 Survey operations in this period consisted of reconfirming previously established control points by Astronomic Observation and ground traverse in addition to providing new survey control where required throughout the 25th Infantry Division TAOI. Additionally, a new Trig List was published by the Survey Information Center with new and up-graded data.

4 Division Artillery Air observers were used to exploit radar sightings and targets provided by the Division Target Information Center. The observers flew many hours in support of night operations. A course in Aerial Observation was conducted during this period in order to qualify more observers.

5 All meteorological electronic commitments for II FFV and 25th Infantry Division were completed. No visual methods were used. Due to shortage of trained personnel a training program was initiated to qualify untrained personnel and up-grade the quality of meteorological techniques.

(c) Civil Affairs activities slumped during the quarter due to guidance from higher headquarters discouraging initiation of projects without specific requests from village officials. This policy is intended to foster political growth at local levels and reduce dependence on American planning. A sudden change in Civil Affairs Officers also adversely affected the program due to a loss of experience and the break-down of working relationships. Command emphasis began an upswing as the quarter ended.

15

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

a. Personnel. None

b. Operations.

(1) Artillery Support of Elements of the US Navy.

(a) OBSERVATION. Two US Navy elements were given an area of operations within range of a battalion's fires. That battalion was directed to provide artillery support.

(b) EVALUATION. Upon his arrival in the area, the navy commander was given an initial briefing on the artillery available to him and the procedures by which fires could be requested. To further insure that fire support would be provided, a liaison officer was sent to assist the commander. The liaison officer was to be a temporary measure, but it was quickly discovered that his service was indispensable. The navy's operations kept them in repeated contact with small enemy forces and the need for artillery was continuous. The navy commander and his small staff did not have the time to call for and control artillery fire. It became the duty of the liaison officer to monitor the situations reported by the navy patrol boats. When a situation developed that indicated the need for artillery fire, the liaison officer would submit fire missions and adjust fire based on the observations of the boat captains. The use of a liaison officer in this capacity has resulted in a much greater and more effective use of artillery in support of navy operations.

(c) RECOMMENDATION. An artillery liaison officer should be attached to any sizeable US Navy force operating within range of artillery. This attachment should be on a permanent basis. This would permit the artillery liaison officer to develop expertise in the methods of operation of the navy force.

(2) Coordination of Airspace

(a) OBSERVATION. The defense of a fire support base requires the use of several fire support means, most of which are competing for the limited air space above and surrounding the base.

(b) EVALUATION. In planning for fire support for the many fire support bases of the 1st Brigade TAOR, it was recognized that all available fire support would have to be employed simultaneously for the best possible defense. The primary problem was to coordinate airspace so that artillery and aerially delivered fire support could both be used. A workable solution was to draw a line through or near the base. The line was so positioned that the bulk of the artillery trajectories would be on one side of it. When possible the line

would follow recognizable terrain features. When aircraft appeared at the scene, artillery would be shifted to one side of the line. Those batteries whose trajectories still passed on the other side of the line were check-fired. The other side of the line would only be for use by aircraft. To further enhance this procedure, ground commanders, FAC's, and aircraft commanders were notified as soon as the plan was developed. When the plan was executed, as in the defense of FSB Crook, the FAC controlled all aircraft. The result was effective use of both artillery and air in a highly successful battle. It is noted however, that a coordinating line does not fall under the definition of any existing control measure. Although such a division is in effect a restrictive fire plan, the dividing line should have a name for ease of planning.

(c) RECOMMENDATIONS. The division of airspace between artillery and aircraft is necessary in planning the defense of an installation. Recommend the following definition: Airspace Coordination Line - a line on the ground over which no artillery trajectory or aircraft flight path will pass. Artillery will only be employed on one side of the line, leaving the other side free for the use of aircraft. Aircraft direct fire weapons may impact on the artillery side of the line.

(3) Coordination of Aircraft.

(a) OBSERVATION. Over any sizeable firefight, a large number of aircraft will congregate, including command and control ships, gunships, light fire teams, sometimes Spooky, and usually a FAC. It is difficult to control these aircraft so that artillery can be safely employed.

(b) EVALUATION. In order to better control aircraft, one battalion suggested that all aircraft overflying a contact maintain UHF communication with the FAC, who would control the positioning of all aircraft. To insure the closest coordination between the artillery and the aircraft, permission was obtained for an artillery observer to ride in the back seat of the FAC aircraft. An artillery observer riding with a FAC, who controlled all aircraft, proved to be a very satisfactory method of coordinating artillery and aircraft support.

(c) RECOMMENDATION. That tactical SOP's prescribe that all aircraft in an engagement be controlled by the FAC or other qualified airborne controller. Every effort should be made to have an artillery observer ride with the FAC.

(4) The Installation of an External Antenna on the LOH for an Aerial Observer Using Radio Set AN/PRC-25/77.

(a) OBSERVATION. Aerial observers using Radio Sets AN/PRC-25/77 in the rear seat of the LOH were not getting the desired range from these sets. They were using the tape antenna AT-892 inside the LOH. The tape antenna is a poor system as the antenna is subject to grounding out on the aircraft and much of the radiated RF energy is absorbed by the metal in the aircraft.

(b) EVALUATION. It was found that by mounting an external antenna on the skids of the LOH (see inclosed diagram), the range of the AN/PRC-25/77 was increased. Communication checks were made from an altitude of 200 feet with transmission and reception with stations over 40 miles away. This was done in both squelch on and off positions. The diagram provided is only one example of this antenna system, others can be constructed from various antenna materials that will insure reliable communications and in no way constitute a flight safety hazard.

(c) RECOMMENDATIONS. When additional radio capabilities are required in the OH-6A Light Observation Helicopter, a locally rigged external antenna for the AN/PRC-25/77 radio should be used.

(5) Computation of ICM using FADAC.

(a) OBSERVATION. FADAC with current issue tapes (issue 2) will not compute firing data for the M102 for ICM (shell M444) at ranges shorter than 1800 meters.

(b) EVALUATION. After the FADAC is in the compute mode for two (2) to ten (10) seconds the no solution light flickers and a flag 8 is displayed (target before peak of trajectory). It has been found through experimentation that once FADAC computes a mission at 1800 meter range it is possible to continue computations for a much shorter range. This is done by using Function B (GT line adj enable) and A-7 (odd - drop). After making initial computations at 1800 meters use the functions listed above to bring the target location toward the battery with moves in increments of 200 meters or less. In this manner FADAC will compute data for targets as close as 600 meters from the battery.

(c) RECOMMENDATION. This technique be disseminated to other units and used as an interim solution to the ICM gunnery problems until new tapes enable FADAC to compute data for shell M444 for ranges less than 1800 meters.

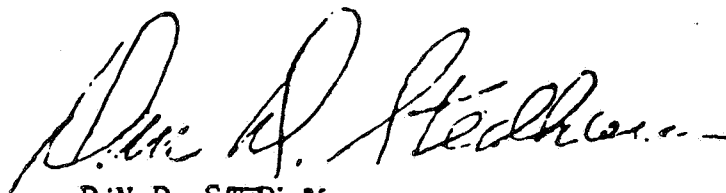
c. Training. None.

d. Intelligence. None.

e. Logistics. None.

f. Organization. None.

g. Other. None.



DAN D. STEBBINS
Colonel, FA
Commanding

2*Incl:

1. Listing of Units

2. External Antenna for LOH

16
AVDCMH (24 Aug 69) 1st Ind

SUBJECT: Operational Report of the 25th Infantry Division Artillery for the period ending 31 July 1969. RCS CSFOR-65 (R1)

Headquarters, 25th Infantry Division, APO San Francisco 96225

TO: Headquarters, Department of the Army, ATTN: ASCFOR, Washington, D.C. 20315

1. (U) This Headquarters has reviewed the Operational Report - Lessons Learned for the quarterly period ending 31 July 1969 from Headquarters, 25th Infantry Division Artillery.

2. (C) Comments follow:

a. (C) Reference item concerning artillery support for U.S. Naval elements, Section 2, Paragraph b, Item (1), concur.

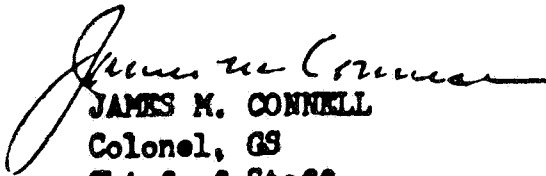
b. (C) Reference item concerning coordination of air space, Section 2, Paragraph b, Item (2), concur.

c. (C) Reference item concerning coordination of aircraft, Section 2, Paragraph b, Item (3), concur.

d. (C) Reference item concerning installation of an exterior antenna on the LOH for the AN/PRC 25/77 radio, Section 2, Paragraph b, Item (4), concur.

e. (C) Reference item concerning computation of ICM using FADAC, Section 2, Paragraph b, Item (5), concur.

FOR THE COMMANDER:


JAMES M. CONNELL
Colonel, GS
Chief of Staff

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS
DOD DIR 5700.10

19
AVFbC-RE-H (24 Aug 69) 2d Ind

SUBJECT: Operational Report of the 25th Infantry Division Artillery for
the period ending 31 July 1969. RCS CSFOR-65 (R1)

DA, HQ II FFORCEV, APO San Francisco 96266 9 SEP 1969

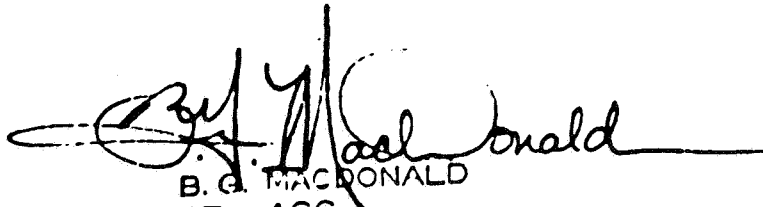
THRU: Commanding General, US Army Vietnam, ATTN: AVHGC(DST), APO 96375

Commander-In-Chief, US Army Pacific, ATTN: GPOP-DT, APO 96558

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

This headquarters has reviewed and concurs with the Operational Report -
Lessons Learned of the 25th Infantry Division Artillery for the period
ending 31 July 1969, as indorsed.

FOR THE COMMANDER:


B. G. MACDONALD
ILT, AGC
Asst AG

AVHGC-LST (15 Aug 69, 3c Ind

SUBJECT: Operational Report of 25th Inf Div Arty for Period ending 31 July 1969, RCS CSFOR-65 (R1) (U)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 1 NOV 1969

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

1. (U) This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1969 from Headquarters, 25th Infantry Division Artillery.

2. (C) Comments follow:

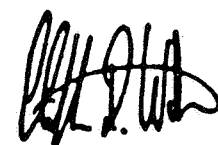
a. (U) Reference item concerning "Coordination of Airspace," section II, page 13, paragraph 2b(2), and 1st Indorsement, paragraph 2b; concur. Recommend DA forward this item to the United States Army Field Artillery School, Fort Sill, Oklahoma for further evaluation as a possible new control measure.

b. (C) Reference item concerning "Coordination of Aircraft," section II, page 14, paragraph 2b(3); concur in the need for aircraft control in the vicinity of a ground engagement. This system has proven effective in controlling aircraft over an engagement. The ground commander is responsible for the employment of combat support elements, i.e., artillery, FAC air and helicopter gunships; however his involvement with the ground conflict may reduce his ability to control and coordinate aircraft assets and artillery fires. In such cases the FAC, with the aid of an artillery representative can effectively assist the commander in regulating aircraft over the operational area. Combat support is immediately available and responsive to the commander and at the same time is centrally controlled to prevent aircraft collisions and/or artillery accidents. This is recognized as a useful technique which may be employed in congested areas where multiple resources are available. Individual commanders must retain the option to decide its appropriateness for inclusion in their tactical SOP's.

c. (C) Reference item concerning "The Installation of an External Antenna on the LOH for an Aerial Observer Using Radio Set AN/PKC-25/77," section II, page 14, paragraph 2b(4); concur. This item will be considered for inclusion in a USAKV Training Newsletter.

d. (U) Reference item concerning "Computation of ICM using FADAC," section II, page 15, paragraph 2b(5); concur. Units should attempt to have available predetermined data to fire ICM at ranges shorter than 1800 meters. This item has been extracted for possible inclusion in a USAKV Training Newsletter.

FOR THE COMMANDER:



C. D. WILSON
1LT, AGC
Assistant Adjutant General

Cy furn:
25th Inf Div Arty
II FFV

GPOP-DT (15 Aug 69) 4th Ind

SUBJECT: Operational Report of HQ, 25th Infantry Division
Artillery for Period Ending 31 July 1969, RCS
CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 12 NOV 69

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

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

C. L. Shortt
C. L. SHORTT
CPT, AGC
Asst AG

AVDCDA-HC

15 August 1969

SUBJECT: Operational Report of 25th Inf Div Arty for Period Ending 31
July 1969. RCS CSFOR-65 (R1)

LISTING OF UNITS

Organic Units

1/8 Artillery (105 How, Towed)
2/77 Artillery (105 How, Towed)
7/11 Artillery (105 How, Towed)
3/13 Artillery (155/8", SP)

Attached Units

A/5/2 Artillery (AW, SP)
3d Plt, Btry I, 29th Arty (SLT)
3d and 5th Sections, Btry D, 71st Arty (MG)

General Support Reinforcing

B/2/13 Artillery (105 How, Towed) 1 May - 28 July
6/15 Artillery (105, Towed) (-) 1 May - 31 July
1/27 Artillery (155 How, SP) (-) 1 May - 31 July

EXTERNAL ANTENNA FOR LOH

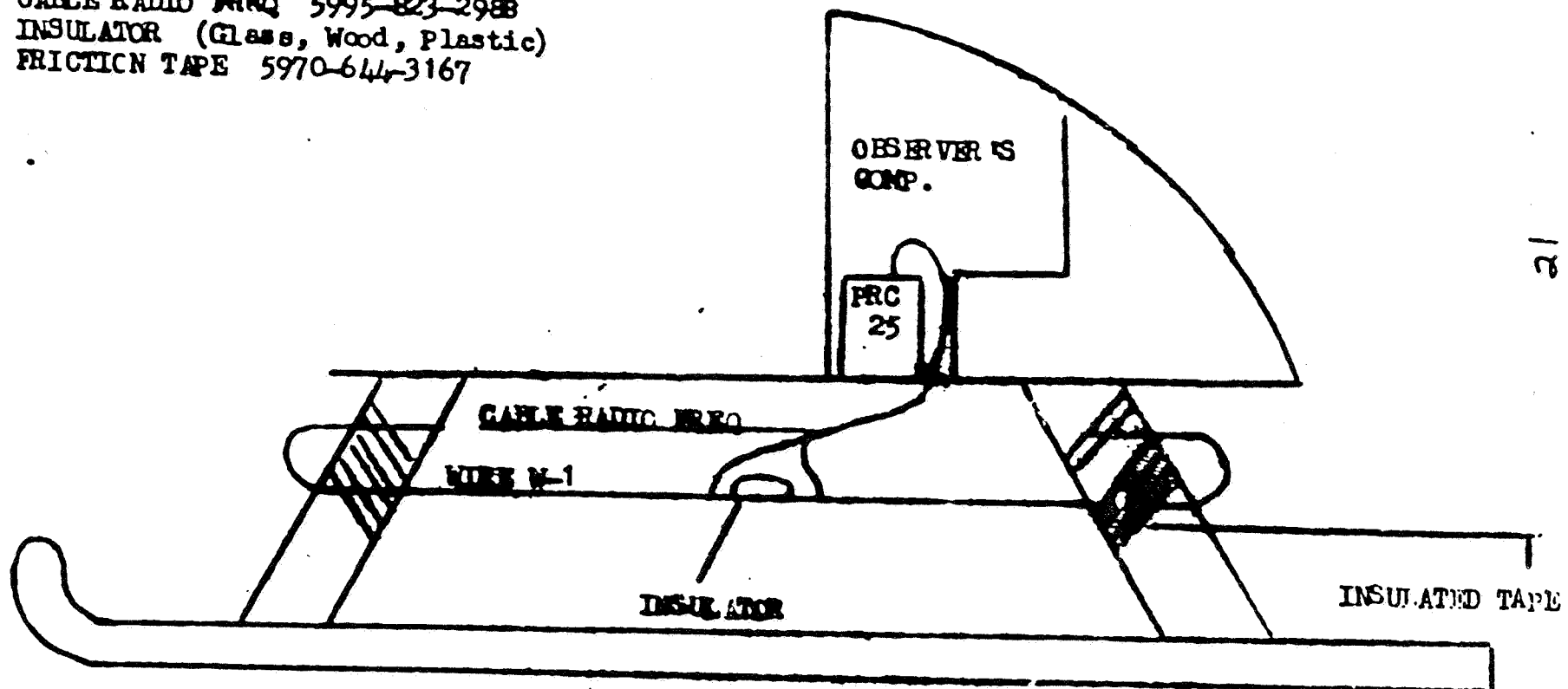
COMPONENTS:

WIRE W-1 8 ft 6145-617-0352

CABLE RADIO FRQ 5995-823-2988

INSULATOR (Glass, Wood, Plastic)

FRICTION TAPE 5970-644-3167



DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) HQ, OACSFOR, DA, Washington, D.C. 20310		2a. REPORT SECURITY CLASSIFICATION CONFIDENTIAL	
		2b. GROUP 4	
3. REPORT TITLE Operational Report - Lessons Learned, HQ, 25th Infantry Division Artillery			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Experiences of unit engaged in counterinsurgency operations, 1 May 69 to 31 July 69.			
5. AUTHOR(S) (First name, middle initial, last name) CO, 25th Infantry Division Artillery			
6. REPORT DATE 15 August 1969		7a. TOTAL NO OF PAGES 24	7b. NO. OF REFS
8a. CONTRACT OR GRANT NO		8b. ORIGINATOR'S REPORT NUMBER(S) 693134	
b. PROJECT NO N/A		8c. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
c.			
d.			
10. DISTRIBUTION STATEMENT			
11. SUPPLEMENTARY NOTES N/A		12. SPONSORING MILITARY ACTIVITY OACSFOR, DA, Washington, D.C. 20310	
13. ABSTRACT			

END

DATE
FILMED

1 - 70