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SUBJECT: Operational Report - Lessons Learned, Headquarters, 2d Howitzer Bn, 35th Arty, Period Ending 30 April 1968 (U)

1. Subject report is forwarded for review and evaluation in accordance with paragraph 5b, AR 525-15. Evaluations and corrective actions should be reported to AGSFOR OT RD, 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.

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3d Battalion, 197th Artillery
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336th Ordnance Battalion (Amm-
2d Battalion, 138th Artillery
2d Bn, 35th Arty.
SUBJECT: Operational Report for Quarterly Period Ending 30 April 1968
Reports Control Symbol CSFOR-65 (U)

THRU: Commanding Officer
54th Artillery Group
ATTN: AVGA-C
APO San Francisco 96376

Commanding General
II Field Force Vietnam Artillery
ATTN: AVFB-PAC
APO San Francisco 96266

Commanding General
United States Army Vietnam
ATTN: AVHGC-DH
APO San Francisco 96266

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United States Army Pacific
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SECTION I

SIGNIFICANT ORGANIZATIONAL OR UNIT ACTIVITIES

1. (C) Personnel and Administration:

   a. The 2d Howitzer Battalion, 35th Artillery remains assigned to the 54th Artillery Group with the mission of General Support, II Field Force.

   b. Headquarters and Headquarters Battery maintained a base camp at XUAN LOC, YT473097. Battery B maintained a base camp at XUAN LOC until 31 March when they moved their supply facilities to LONG BINH, YT056116, in the Service Battery area. Battery A maintained a permanent base camp at MUI DAT, YT3428665. Battery C has no permanent base camp but maintains storage facilities at Service Battery. Service Battery maintained a permanent base camp at LONG BINH, YT056116.

   c. Command changes:

      (1) Captain Albert E Carlson, 099143, assumed command of Battery C from Captain Hartmut D Guenther, OP113647, on 15 March 1968.

      (2) First Lieutenant Vernon F C Zopes, 05420302, assumed command of Headquarters and Headquarters Battery from First Lieutenant Alden L Roberson, 05333213, on 22 April 1968.

   d. Normal SI activities were conducted during the period 1 Feb 68 through 30 April 1968.

   e. Personnel strength as of 30 April 1968 was as follows:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>TOA AUTH</th>
<th>GO AUTH*</th>
<th>ASSIGNED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OFF</td>
<td>WO</td>
<td>LIB</td>
</tr>
<tr>
<td>HQ</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A</td>
<td>3</td>
<td>0</td>
<td>117</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>0</td>
<td>117</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>0</td>
<td>117</td>
</tr>
<tr>
<td>SVC</td>
<td>3</td>
<td>2</td>
<td>62</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27</td>
<td>3</td>
<td>345</td>
</tr>
</tbody>
</table>

*General Order Number 80, HQ, 5th Army, dated 20 April 1966, authorized the strengths shown. The present MOS for this unit reflects these figures.

f. The following critical NCO shortages exist:

<table>
<thead>
<tr>
<th>MOS</th>
<th>TITL</th>
<th>GRADE</th>
<th>AUTH</th>
<th>SHORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>13D2O</td>
<td>Recon Sergent</td>
<td>GT26S</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>35D2O</td>
<td>Hot Ballistics Equip Mech</td>
<td>SP52S</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

   g. Personnel changes during the reporting period included:

<table>
<thead>
<tr>
<th>Grins</th>
<th>OFF</th>
<th>WO</th>
<th>LN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Losses (DLROS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infusion</td>
<td>3</td>
<td>2</td>
<td>134</td>
</tr>
<tr>
<td>Transfer</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

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h. Casualties included:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Killed In Action</td>
<td>1</td>
</tr>
<tr>
<td>Wounded In Action</td>
<td>40</td>
</tr>
<tr>
<td>Missing In Action</td>
<td>0</td>
</tr>
<tr>
<td>Non-Battle Dead</td>
<td>1</td>
</tr>
<tr>
<td>Non-Battle Missing</td>
<td>0</td>
</tr>
<tr>
<td>Non-Battle Casualties</td>
<td>9</td>
</tr>
</tbody>
</table>

i. Pertinent medical service statistics:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total patient visits</td>
<td>284</td>
</tr>
<tr>
<td>Admitted to hospital</td>
<td>4/41</td>
</tr>
<tr>
<td>Malaria cases</td>
<td>0</td>
</tr>
</tbody>
</table>

j. Judicial and Non-Judicial Punishment:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC</td>
<td>1</td>
</tr>
<tr>
<td>SCM</td>
<td>1</td>
</tr>
<tr>
<td>Art 15's</td>
<td>13</td>
</tr>
</tbody>
</table>

k. Awards and decorations:

- Silver Star: 1
- Bronze Star: 4
- Air Medal: 4
- Army Commendation Medal: 15
- Purple Heart: 40

l. Reportable accidents:

Personnel: 4
Vehicles: 4

m. R&R:

(1) Out of country:

- Hawaii: 15
- Australia: 9
- Tokyo: 5
- Hong Kong: 5
- Manila: 1
- Singapore: 6
- Bangkok: 9
- Taipei: 19

(2) In-country: Vung Tau: 8

n. Safety:

(1) Analysis: There were eight accidents in the battalion during the period 1 Feb 68 to 30 Apr 68. The eight accidents were caused by carelessness and inattentiveness on the part of the individuals concerned. One of the four vehicle accidents was reportedly caused by mechanical failure (the brakes failed to function on a 3/4-ton vehicle).

(2) Corrective Actions: Battery commanders have been directed to emphasize to each member of their command the necessity for individual instruction on driver safety and accident prevention. A policy for convoy movements has been initiated that will insure that all NCO's and drivers are briefed on road conditions and specific hazards to be especially alerted for prior movement.
o. Commander's Notes:

(1) Span of Control: The span of control of the battalion continues to be heavily taxed due to the great distances between battalion headquarters and the firing batteries. During periods of attachment, the battalion remains charged with personnel administration, gunnery standards and maintenance supervision of the firing batteries. The distance between firing batteries and battalion headquarters and the service elements of the battalion varied up to 100 kilometers. Helicopter transportation became the key to effective supervision and to expediting maintenance activities. The battalion is currently receiving an allocation of four and a half hours of helicopter time per day. (See Incl 3).

(2) Maintenance:

(a) Battery C was attached to the 9th Inf Div at DONG TAU for the period 6 Nov 67 to 6 Mar 68. Maintenance support for the M109 howitzer was not available at DONG TAU, since the 9th Inf Div had none of these weapons in the division. Maintenance support was established through liaison with the 2d Maintenance Battalion at VUNG Tau. An extremely profitable maintenance plan was developed, in cooperation with the 2d Maint Bn, i.e. to barge one M109 and its companion M548 to VUNG Tau for overhaul and annual maintenance. Although this program took one howitzer out of action for a period of 7-10 days, the material readiness of the battery was markedly improved. This scheme was developed further with the return of Battery A to NUI DAT base camp. The use of adequate shop facilities with the ready availability of technicians and spare parts improved the operational capability of and prolonged the life of the M109 howitzers.

(b) Battalion Maintenance Operations: The battalion maintenance section was previously located in XUAN Loc and piece-mealed cut to each of the firing batteries. The battalion maintenance section was relocated in LONG BINH where parts access, road network and available transportation have materially reduced the battalion deadline rate. The 185th Light Maintenance Battalion has been extremely cooperative in expediting the repair of the aged M109 howitzers assigned to this battalion.

(c) M548 Deadline Rate: The M548 continues to be a high deadline item in this battalion. For this reporting period, the total days available were 1400 for a percentage availability of 91%. An analysis of causes for deadline shows the main contributing factors were ineffective operational maintenance and excessive loads on convoy movements. In an attempt to rectify this condition, positive command emphasis has been focused on the supervision of maintenance. Allowable loads on the M548's have been established at 4.5 tons. A loading plan for forty-two complete rounds, sufficient propellant and fuzes and defensive materials is now being used. The load is so positioned as to permit crew "during operation-at halt" maintenance to be performed without removing the load from the cargo deck.

d. On 17 April 1968, the battalion received the first of eighteen fifth year model M109 howitzers. As of 30 Apr, fifteen have been issued. The other three howitzers will be issued during the month of May. At the present time, Batteries A and B have six new howitzers each, while Battery C has three.
2. (c) Operations:

a. Battalion deployment and missions as of 1 Feb 68 were as follows:

(1) Headquarters and Headquarters Battery was located at XUAN LOC, YT 472097 and provided normal support to the battalion in addition to providing for XUAN LOC base camp defense.

(2) Service Battery was located at LONG BINH, YT056116, and provided normal support to the battalion.

(3) Battery A was located at FS/PB HASKIN, X098323, with the mission of GSR, 101st Abn Div Art Y OPCON for fires to the 1st Bn, 319th Arty during Operation EUNIN VISTA.

(4) Battery B was located at FS/PB ANDERSON, YT205127, General Support, IIFFORCIV with priority of fires to the 1st Royal Australian Task Force during Operation COBURG.

(5) Battery C was located at LONG TAN, XT541238, attached to the 9th Inf Div Art and further attached to the 1st Bn, 84th Arty with a mission of Rein the 3d Bn, 34th Arty during Operation CORONADO.

b. Battery A, from its position at FS/PB HASKIN, X098323, had the mission of GSR, 101st Abn Div ArtY during Operation BUAN VISTA until 11 Feb 68. Battery A then moved to BILAN HOA POST, YTO26156 for one night, keeping the same mission and supporting operations in AO UNIONTOW. On 12 Feb 68, Battery A moved to FS/PB CONCORD, YTO35175, with the mission of GSR, 101st Abn Div ArtY in the area of Operation UNIONTOW. On 1 Mar, Battery A moved to their base camp at NUI DAT, YSO42665, with a mission of GS, IIFFORCE, Rein the 4th Royal Australian Field Regiment. Battery A moved from NUI DAT on 1 Mar to a FS/PB located at YS493618 and assumed the mission of GSR, 4th RA F. The battery remained in this location until 15 Apr when it returned to its base camp at NUI DAT. At this time the unit's mission changed to GS, IIFFORCE, Rein the 12th RA F, due to the rotation of the Australian units. On 23 Apr, Battery A moved to a FS/PB at YS264775 with their mission unchanged. On 25 Apr, Battery A again returned to base camp at NUI DAT continuing their mission until the end of the reporting period.

c. Battery B: From 1 Feb to 18 Feb, Battery B continued to support Operation COBURG with a mission of GS, IIFFORCE, with priority of fires to the 1st Australian Task Force. On the night of 18 Feb, Battery B was attacked by an estimated battalion size force. A mortar/rocket attack was followed by an intensive ground attack (See 2c(2) and Section II, par 2a, below). On 28 Feb, the battery received a mortar attack resulting in 20-30 rounds impacting in the area. On 1 Mar, FS/PB ANDERSON was closed and Battery B moved to FS/PB CONCORD, YT 035175, with a mission of GSR, 101st Abn Div ArtY OPCON for fires to the 7th Bn, 4th Arty. Battery B departed FS/PB CONCORD on 17 Mar and crossed the DONG NAI RIVER, at night, by Landing Craft Mechanized (LCM) and arrived at FS/PB LOIS, YTO43245, on 18 Mar. The unit's mission while at FS/PB LOIS was GSR, 2d Bn, 40th Arty. On 29 Mar, Battery B departed FS/PB LOIS and moved to BILAN HOA, YTO26148, with a mission of GS, IIFFORCE, with priority of fires to the DONG NAI AREA. Battery B departed BILAN HOA on 31 Mar and moved to CU CHI, X064162, with a mission of GSR, 25th Inf Div ArtY. On 1 Apr, Battery B was attached to the 25th Inf Div with a mission of GSR, 2d Bn, 40th Arty and moved to FS/PB BOLT, X0261386.
The battery remained in this position until 12 Apr when they moved to FS/PB GRANT, XT387625, with a mission of GSR, 3d Bn, 77th Arty. It was here that the battery supported 25th Inf Div units during Operation TOAN THANG, assisting in achieving a body count of over 200 VC KIA's. On 20 Apr, Battery B moved to FS/PB STUART, XT504193, remaining overnight prior to moving to FS/PB FIKE VI on 21 Apr, with a mission of GSR, 25th Inf Divarty where they remained until the end of the reporting period.

d. Battery C: (For TET Offensive action, see 2e(3) below) On 3 Feb, Battery C moved to DONG TAH, XS409443 and continued to support Operation CORONADO. On 10 Feb, Battery C moved to LONG DINH BRIDGE, XT382694, and as a result their mission changed to DS, 5th Bn, 60th Inf during Operation CORONADO. Their mission was again changed on 17 Feb to DS, 2d Bn, 39th Inf. Battery C again had a mission change on 19 Feb to GS, 1st Bde, 9th Div. On 20 Feb, Battery C moved by Landing Craft Utility (LCU) on a two day trip to CAN THO, WR934390, with a mission of GSR, 3d Bn, 34th Arty. While enroute Battery C received small arms and automatic weapons from the shore which was returned with unknown results. On 21 Feb, Battery C arrived at BINH TUY, WS 810148. From BINH TUY, they moved overland to PHUNG HIEP, WR905814 on 22 Feb.

On 23 Feb, Battery C roadmarched back to CAN THO where they were loaded on LCU's for the trip to DONG TAM, arriving at that location on 24 Feb. Throughout the period at DONG TAM, Battery C retained their mission of GSR, 3d Bn, 34th Arty. During the TET Offensive, Battery C received mortar rounds on several occasions totalling 311 rounds. Damage throughout the period was slight and casualties were minor. On 6 Mar 68, Battery C moved from DONG TAM to FS/PB PARIS, YT133082, with the mission of GS, IFFORCEV Reinf 2d Bn, 40th Arty. On 12 Mar, Battery C moved to a FS/PB north of the LEHN compound at TAN UEN, XT967232, with a mission of GSR, 2d Bn, 40th Arty, priority of fires to the Vietnamese Marines. On 21 Mar, Battery C moved to FS/PB CONCORD, YT 035175 with the mission of GS, IFFORCEV priority of fires to the 2d Bn, 319th Arty OPCON for fires to the 7th Bn, 8th Arty. Battery C remained in this position until 12 Apr when it split into two platoons. One platoon remained at FS/PB CONCORD with the same mission while the other platoon moved to CAY GAIN PLANTATION, FS/PB FARRELL, YT328268 to participate in Operation TOAN THANG, with the mission of GS, IFFORCEV Reinf 2d Bn, 40th Arty. On 24 Apr, Battery C Forward moved from FS/PB FARRELL to FS/PB TRI-CORNERS, YT206126, retaining the mission of GS, IFFORCEV Reinf 2d Bn, 40th Arty. Battery C has remained split until the end of the reporting period. (After Action Report: Riverine Operations - M109 Howitzer Battery - Inclosure 1)

e. TET Counteroffensive:

(1) Battery A: At the outbreak of the VC TET Offensive, the battery was located at FS/PB NASHUA. There was no significant contact in the area throughout the entire period.

(2) Battery B: This battery was located at FS/PB AUGHRISTON which was attacked by a battalion sized force on 18 Feb. The battery underwent an intensive ground attack preceded by an intense mortar/rocket attack. Battery B suffered one KIA and twenty-two WIA on that occasion. One howitzer was reduced to inoperable condition after being struck by an RPG-2 round which penetrated the turret. Four other battery vehicles suffered moderate to severe damage in the mortar/rocket attack.
Battery C: Battery C was located at GIANG DUC, west of MY THO in support of the 2d Bde, 9th Inf Div at the beginning of the offensive. After the US forces had displaced to DON TAN; MY THO area, Battery C was withdrawn by LCU's. The embarkation was made under harassing mortar and sniper fire. While enroute to DON TAN, the LCU's were diverted to pick up forty US Government employees at VINH LONG. The battery used DON TAN as its fire support/ptrol base in supporting the 9th Inf Div elements along Route 4 and MY THO. Their position was mortared every night for a week with a total of 311 rounds impacting in their area. However, only three persons were wounded and light damage to equipment was suffered. During the period of the TET Counteroffensive, the battery fired as many as one-thousand, six-hundred and forty-two rounds of 155mm ammunition in a single day.

Headquarters and Headquarters Battery: Located at the provincial capital of VINH LOC, the battalion headquarters and Headquarters Battery were engaged in defense of the city and support of units in the field. The base camp, which also housed Battery C, 7th Bn, 9th Arty, a 105mm battery, received over eighty mortar rounds on the night of 31 Jan and fifty additional rounds on the night of 1 Feb. Casualties for all units on the compound totalled one KIA. and eighteen WIA's.

Service Battery: Service Battery was instrumental in aiding the defense of the LONG BINEH-PLANTATION area. Service Battery received several 122mm rockets and a heavy volume of small arms and automatic weapons fire. Despite the intensity of the fire, no casualties were suffered.

Fire Missions Summary:

<table>
<thead>
<tr>
<th>MONTH</th>
<th>BATTERY A</th>
<th>BATTERY B</th>
<th>BATTERY C</th>
<th>BATTALION TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mens</td>
<td>Rds</td>
<td>Mens</td>
<td>Rds</td>
</tr>
<tr>
<td>Feb 68</td>
<td>1104</td>
<td>3500</td>
<td>948</td>
<td>6106</td>
</tr>
<tr>
<td>Mar 68</td>
<td>932</td>
<td>3311</td>
<td>1758</td>
<td>7227</td>
</tr>
<tr>
<td>Apr 68</td>
<td>922</td>
<td>3187</td>
<td>1447</td>
<td>5593</td>
</tr>
<tr>
<td>TOTALS</td>
<td>2958</td>
<td>9998</td>
<td>4153</td>
<td>18,926</td>
</tr>
</tbody>
</table>

Summary of Operations: During the reporting period, units of the battalion participated in the following combat operations:

1. UNIOTOWN
2. COBURG
3. CORONADO XVI
4. TET COUNTEROFFENSIVE
5. HARRISBURG
6. BOX SPRINGS
7. VALLEY FORGE
8. PINAROO
9. WILDERNESS
10. TOWN THUC

Training and Organization:

Scheduling of mandatory training subjects for the battalion is accomplished by battalion operations. The implementation of the subjects is accomplished at the batteries. While on operations, suitable subjects are integrated into the normal performance of duties. To maintain, improve and expand job skills, within the battalion, on-the-job training and cross training are given continuously.

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b. On 27 Feb and 5 Mar, a gas chamber exercise was administered to Headquarters and Headquarters Battery personnel as an annual requirement and to check the serviceability of protective masks.

c. During the period 1 Feb to 30 Apr, sixty-five newly assigned personnel received in-country training at the Redcatcher Training School of the 199th Light Infantry Brigade.

d. During the period 1 Feb to 30 Apr, all firing battery personnel were administered the Gunner's Qualification Test, resulting in fifty-six personnel passing the test.

e. FDC training and testing were conducted during the reporting period for all FDC personnel.

f. On 21-22 Apr, the battalion hosted a forward observer training course for twelve officers and twenty-five NCO's from LONG BINH POST. The training included:

   (1) Duties of the observers
   (2) Call for Fire
   (3) Adjustment of Fire
   (4) Service Practice

   The service practice was the highlight of the course. It was begun by orienting the student observers, identifying the reference points and conducting a terrain study. A short demonstration was conducted by Battery B, 7th Bn, 9th Arty, which included:

   (1) Shell, WP, 400m HOB
   (2) Shell, HE, on the ground
   (3) Shell, HE, 400m ranging rounds
   (4) Shell, HE; Fuse, VT

   Four "round robin" missions were fired with student observers making calls for fire and corrections. A running critique was conducted by the OP instructor after the call for fire, each correction and each mission. This enabled maximum participation by the students.

g. The following training courses were attended by battalion personnel which were conducted outside the battalion:

   (1) A two hour security briefing (communications) was attended by thirteen officers and enlisted men from Headquarters Battery at 54th Artillery Group Headquarters in XUAN Loc on 22 March.

   (2) Five personnel, one from each battery, attended PLL classes conducted by the 19th HOW Bn in LONG BINH from 16-19 April.

   (3) Two officers attended a FDLC Training Course conducted by the 23d Artillery Group in PHU LOI from 1-5 April.
One man from each of the five batteries attended an eight hour course on M16 maintenance and repair on 10 Mar. The instruction was presented by the USARV Mobile Trmdir, Tern at the 7th Bn, 8th Arty in Bien Hoa.

4. (c) Intelligence:

a. The battalion continued its visual reconnaissance program in the portion of LONG KHAMN SECTOR assigned to the 2d How Bn, 35th Arty by the 54th Artillery Group. The VR Program had the following objectives:

1. Acquiring intelligence information through planned, systematic and thorough aerial visual reconnaissance. One-hundred and ninety-eight sightings were made to include bunkers, trails and base camps.

2. Recommending targets for attack by artillery and requesting tactical air support if needed. Sixty-six targets were recommended for attack and of these sixty-six, twenty-seven were destroyed with artillery, eighteen with aircraft ordnance, and twenty-one were given negative clearance.

3. Adjusting artillery fires within the assigned VR areas.

4. Conducting registrations for artillery units located within the 2d How Bn, 35th Arty area of operations. One-hundred and nine artillery registrations and thirty-one convoy cover missions were made during this period.

5. Visually checking the reports of enemy sightings.

6. During the period a total of three-hundred and fifty-three hours, and one-hundred and eighty-four missions were flown by Artillery AO's of the 2d How Bn, 35th Arty.

b. Person to person contact has been initiataed between the S2 section and the intelligence gathering sources in the XUAN LOC area to include:

1. 18th ARVN Div G2
2. Long Khanh Sector HQ
3. National Police HQ
4. American Advisors to National Police
5. S2, 54th Artillery Group

b. Base camp physical security:

1. A new guard bunker, designated as Post 7, has been constructed at the midpoint of the north bom, between Post 6 and Post 8 in the base camp at XUAN LOC.

2. Thirty-five perimeter lights, thirty meters apart, have been installed around the XUAN LOC base camp bom and provide illumination for an area up to fifteen meters in front of each guard bunker with intersecting beams of light.

3. A specified amount of ammunition has been placed in each bunker under lock and key, consisting of flares, fragmentation grenades, M-14 and M-60 ammunition and one M-72 LAW per bunker.
(4) Two new ammunition bunkers have been constructed at strategic points on the southwest corner of the berm at XUAN LOC base camp for the storage of GS grenades and trip flares.

5. (c) Logistics:

a. Monthly Vehicle Availability Percentage:

<table>
<thead>
<tr>
<th>TYPE OF VEHICLE</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>CTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>M109</td>
<td>91%</td>
<td>93%</td>
<td>94%</td>
<td>93%</td>
</tr>
<tr>
<td>M548</td>
<td>82%</td>
<td>91%</td>
<td>91%</td>
<td>91%</td>
</tr>
<tr>
<td>M578 VTR</td>
<td>62%</td>
<td>63%</td>
<td>62%</td>
<td>62%</td>
</tr>
<tr>
<td>M88 VTR</td>
<td>49%</td>
<td>100%</td>
<td>100%</td>
<td>91%</td>
</tr>
<tr>
<td>M577A1</td>
<td>79%</td>
<td>77%</td>
<td>80%</td>
<td>79%</td>
</tr>
<tr>
<td>Wheeled Vehicles</td>
<td>86%</td>
<td>38%</td>
<td>95%</td>
<td>90%</td>
</tr>
</tbody>
</table>

b. Ammunition resupply by rounds:

<table>
<thead>
<tr>
<th>TYPE OF AMMUNITION</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE</td>
<td>20909</td>
<td>17090</td>
<td>16728</td>
<td>54,727</td>
</tr>
<tr>
<td>WP</td>
<td>845</td>
<td>327</td>
<td>385</td>
<td>1,557</td>
</tr>
<tr>
<td>ILL</td>
<td>1018</td>
<td>432</td>
<td>706</td>
<td>2,156</td>
</tr>
</tbody>
</table>

c. Miles traveled by Service Battery ammunition trains:

- FEB - 1718 miles
- MAR - 1547 miles
- APR - 2744 miles
- TOTAL - 6009 miles

d. Approximate tonnage of class I-IV resupply handled by SVC BTRY:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>3.9</td>
<td>45.6</td>
<td>10.0</td>
<td>59.5</td>
</tr>
<tr>
<td>Class II and IV</td>
<td>6.4</td>
<td>27.3</td>
<td>5.7</td>
<td>38.4</td>
</tr>
<tr>
<td>Class III</td>
<td>0.0</td>
<td>3.8</td>
<td>6.4</td>
<td>10.2</td>
</tr>
</tbody>
</table>

e. Number of aerial resupply missions flown in support of firing batteries:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I-IV</td>
<td>5</td>
<td>32</td>
<td>21</td>
<td>55</td>
</tr>
<tr>
<td>Class V</td>
<td>32</td>
<td>43</td>
<td>7</td>
<td>122</td>
</tr>
</tbody>
</table>

6. (c) Other:

a. Civic Actions:

(1) Specific civic actions: Screen windows were built and installed in one of the patient wards at the Philippine hospital in XUAN LOC.

(2) Tot Aggression Relief Program: Contributions - $140.00

(3) MEDCAP's: Three MEDCAP's with 470 patients treated.
b. Communications:

(1) The AN/GRC-46 Radio Teletypewriter Sets are presently located in Battery A, Battery B and Headquarters Battery. Battery A and B have on-line crypto capabilities at present. Battery C does not have crypto capabilities due to shortages of equipment. Shortage equipment is on requisition.

(2) Eight-hundred and sixty-seven messages were transmitted and received by RTT through the message center during the reporting period.

(3) Speech security equipment has been installed with service and B Batteries enabling secure FM radio messages to be transmitted to and from battalion headquarters.

SECTION II

PART I - OBSERVATIONS (LESSONS LEARNED)

1. (U) Personnel and Administration: None

2. (C) Operations:

a. TET: Recent Combat Actions - TET Offensive

OBSERVATION: During the enemy's recent TET Offensive, many lessons were learned in the area of perimeter defense, fire support coordination, and delivery of self-protective fires. On the night of 18 Feb 68, Battery B was attacked by an estimated battalion sized force at FS/PB LUDIMON. A mortar/rocket attack preceded an intensive ground attack by the enemy force. In some instances, RPG (rocket propelled grenade) rounds were fired from as close as twenty meters. The action resulted in the loss of one howitzer, moderate to severe damage to four wheeled vehicles, one US KIA and twenty-two US WIA's.

EVALUATION: It was found that maximum utilization of artillery and gunships could be obtained if proper boundaries, fire coordination lines and flight corridors were used. Using this system, the battery was able to employ three other artillery batteries for defensive concentrations on one side of its position while gunships were employed from the other side. Despite the intensity of the attack, battery personnel defended the area from tactically placed two-man, steel culvert, sandbagged bunkers. The howitzers and other vehicles were dug in to lower their silhouette and a dirt berm was placed around the equipment affording it rocket and small arms protection. Enemy casualties were four confirmed VC KIA's on the battery perimeter and nineteen total VC KIA's around the FS/PB. During this action the battery fired direct fire, charge 1, fuse time with high explosive and white phosphorus ammunition. This fire was detonated as close as 300 meters from the FS/PB perimeter, silencing automatic weapons, small arms and mortar fire. Fire could not be brought any closer without increasing the possibility of shrapnel blow-back.

b. ITNI: Night River Crossing - M109 Howitzer Battery

OBSERVATION: On the night of 17-18 Mar 68, Battery B conducted a crossing of the DONOI MAI RIVER in conjunction with elements of the 11th ACR and the 199th Lt Inf Bde. The river crossing was accomplished with difficulty over hastily constructed LCN loading and off-loading sites. AMC's from the
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11th CCOR crossed without difficulty using only one LCM. The first M109 howitzer met with difficulty during off-loading from the LCM. Insufficient bank preparation and improper demolition usage weakened the bank to the point that the 27 ton M109 became mired in the river bank. Bulldozers and JAC's had to be used to pull it out of the mud. Considerable improvements had to be made before the river crossing could be completed without difficulty.

EVALUATION: Considerable engineer effort is required to properly prepare a landing site for M109 howitzers. Leveling, probing and placement of pierced steel planking are absolutely essential to a timely and successful hasty crossing. The LCM is a satisfactory vessel to be used for river crossing with an M109 firing battery.

c. ITEM: Operation of FADAC under Dusty Conditions:

OBSERVATION: During the dry season in Vietnam, the large volume of dust present collects on the FADAC table and causes the air filters on the FADAC to become clogged. Daily cleaning and maintenance of the FADAC air filters is often insufficient to cope with the problem.

EVALUATION: Covering the console of the FADAC and the table area below the air filters with a damp cloth will prevent most of the dust from collecting on the FADAC. Prior to turning the FADAC on, the damp cloths are removed and the operational area is relatively dust free.

d. ITEM: Pre-Cut Ammunition Bunkers

OBSERVATION: Supporting framework for ammunition bunkers was prepared in Battery A base camp at HUI DAT for use at field locations. Bunkers are planned to be 22 feet, 6 inches in length and 5 feet square each. The following materials are needed to construct one bunker:

- 12 - 4" X 4" boards, 4' 8" long (uprights)
- 7 - 4" X 4" boards, 5' 4" long (floor supports)
- 3 - 4" X 4" boards, 15' long (frame)
- 3 - 4" X 4" boards, 7' 6" long (frame)
- 20 - 2" X 6" boards, 5' 4" long (roof supports)
- 7 - 2" X 6" boards, 15' long (siding)
- 7 - 2" X 6" boards, 7' 6" long (siding)
- 8 - 2" X 4" boards, 4' long (braces)
- 15 - Sheets of tin
- 800 - sandbags
- 100 - "20 penny" nails
- 125 - "16 penny" nails

Two identical bunkers are built facing one another approximately ten feet apart. In addition, 300 sandbags are required to construct the barrier wall between the bunkers. Salvage covers is placed in front of each bunker for additional weather protection.

EVALUATION: The pre-cut bunkers proved very satisfactory on the first testing in the field. Time of construction of ammunition bunkers was reduced by fifty percent. Two or three men can assemble the bunker while the remainder of the men fill sandbags. The bunkers meet all ammunition storage requirements to include dunnage and air space. Additionally, uniform construction of each howitzer position facilitates position organization and also gives a unit commander the capability of accurately planning for materials needed to occupy a new area.

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e. ITEM: Large vs Small Defensive Bunkers

OBSERVATION: Large crew bunkers which house more than two people in a field position are not feasible for defense of the position area. The large bunkers require an excessive amount of building materials, construction and destruction time. Four pieces of standard 72" metal culvert material are required to construct a weather-proof bunker and provide good first round protection from hostile fire for two men. The bunker is designed to contain cots for sleeping, and to provide protection as a fighting position. Four sections of culvert are overlapped and placed on a sandbag foundation. Sandbags are stacked in the front and rear in such a manner as to allow firing of individual or crew-served weapons from inside the bunker and serve as blast shields for personnel. Three layers of sandbags are placed on top of the culvert section to provide adequate overhead cover. Approximately 200 sandbags are required for construction.

EVALUATION: Culvert bunkers are now the battalion standard. They provide good protection from weather and hostile fire. Additionally, culvert materials, while heavy, are compact and accurate planning for position occupation is realized through the use of this system.

f. ITEM: Fuse Time in Defense of Artillery Battery Positions

OBSERVATION: The M109 howitzer with charge 7 and fuse quick has proven to be the most effective of all combinations of fuses and charges because of its speed of preparation and its terminal effects; however, if a mask is present or range to the target is close, then fuse time with a low fuse setting is used to allow closer detonation to the howitzer. Both charge 7 and charge 1 with fuse time have been used. The following data is based upon the fuse time, indirect fire technique:

<table>
<thead>
<tr>
<th>CHARGE</th>
<th>FUZE M564</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0.25 sec (direct fire)</td>
<td>Air burst occurred about 300m from tube. Small fragments were received in the position. Of 49 rounds fired 5 base plates came into the battery position.</td>
</tr>
<tr>
<td>1GB</td>
<td>2.0 sec, QB 99</td>
<td>Air burst approx 25m high at 300m from tube. Small fragments were received in position. Good effects were observed within 100m of burst.</td>
</tr>
<tr>
<td>1GB</td>
<td>2.5 sec, QB 99</td>
<td>Air burst, 20m high approx 380m from position. Very effective and safe for troops in position who are prone or kneeling.</td>
</tr>
</tbody>
</table>

Direct fire, using various time settings (greater than those mentioned above) have been fired and have been found to pose no danger to troops. As a safety precaution, personnel not actively engaged in the mission should take cover during firing.
EVALUATION: Charge 7, fuse time, requires the settings of small fuse settings creating room for error (see above table). Charge 10B with fuse time can be fired into areas bordering the perimeter and produces a large kill zone in the target area. When using charge 10B, the presence of the excess power bags creates a fire hazard inside the howitzer which is closed during an attack to furnish the crew protection from small arms fire, mortar fragments, RPG's, and rockets.

3. Incl
   as
   
1. Riverine Operation
2. Representative Positions
   During Reporting Period
3. Span of Control Chart

K R Thurman
LTC, Artillery
Commanding
AVGA-C (1 May 68) 1st Ind
SUBJECT: Operational Report for Quarterly Period Ending 30 April 1968, Reports Control Symbol CSPOR-65

THRU: Commanding General, II Field Force Vietnam Artillery, ATTN: AVFB-FAC, APO 96266
Commanding General, II Field Force Vietnam, ATTN: AVFBC, APO 96266
Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375
Commander-In-Chief, United States Army Pacific, ATTN: GPOP-DT, APO 96558

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

1. (U) The Quarterly Operational Report, Lessons Learned, from the 2d Battalion, 35th Artillery is considered adequate. Due to the wide range of operations in which this battalion was engaged during the period of the report, the observations outlined are worthy of special note. In particular, attention is invited to the after action report (Inclosure 1) submitted by the battery commander of the first M109 battery to operate for extended periods in the Delta area.

2. (U) With respect to para 10h(3)(a)(b)(c), Inclosure 1, the 2d Battalion, 35th Artillery has been directed to submit appropriate DA Forms 2407, if warranted.

J. F. Norris
Colonel, Artillery
Commanding
AVPH-PAC (1 May 68) 2nd Ind
SUBJECT: Operational Report - Lessons Learned (RCR-CSFOR-65)

DA, HA, 1st Phnch Artillery, APO 96266 2 g MAY 1968

THRU: Commanding General, II Field Force Vietnam, APO 96266
Commanding General, United States Army Vietnam, ATTN: AVHGC-DST,
APO 96575
Commander-In-Chief, United States Army Pacific, ATTN: GPOP-OT,
APO 96558

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

1. (U) The quarterly report of the 2nd Battalion, 35th Artillery
(UIC: X582XX) adequately reflects the operations and lessons learned
during the reporting period.

2. (U) Concur with the comments and recommendations in Section II
of the report and the 1st Indorsement. The observations and evalua-
tions contained in Section II of this report as well as the conclusions
of Inclosure 1 are particularly noteworthy and should be carefully re-
viewed at all DA levels.

Raymond P. Murphy
Brigadier General, USA
Commanding

CONFIDENTIAL
AVBc-RE-H (1 May 68) 3rd Ind
SUBJECT: Operational Report for Quarterly Period Ending 30 April 1968
Report Control Symbol CSFOR-65 (U)

DA, HQ II PFORCE, APO San Francisco 96266 [14 JUN 1968]

THRU: Commanding General, US Army Vietnam, ATTN: AVBcO(DST), APO 96375
Commander, US Army Pacific, ATTN: GPOP-0T, APO 96558

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

1. Subject report is forwarded.

2. This headquarters has reviewed the attached Operational Report - Lessons Learned of the 2d Battalion, 35th Artillery and concurs with it.

FOR THE COMMANDER:

O. B. FORN
1LT, ACC
Asst AG

17
AVHGC-DST (1 May 68) 4th Ind (U)
SUBJECT: Operational Report for Quarterly Period Ending 30 April 1968 Reports Control Symbol CSFOR-65 (U)

HEADQUARTERS, US ARMY VIETNAM, APO San Francisco 96375 JUN 1968

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

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 30 April 1968 from Headquarters, 2d Howitzer Battalion, 35th Artillery.

2. Concur with report as submitted.

FOR THE COMMANDER:

C. S. NAKATSUKASA
Captain, AGC
Assistant Adjutant General

Copy furnished:
HQ 2d How Bn, 35th Arty
HQ II FFORCEN
SUBJECT: Operational Report of HQ, 2d Bn, 35th Arty for Period Ending
30 April 1968, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 20 JUN 1968

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

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

FOR THE COMMANDER IN CHIEF:

C.L. SHORTT
CPT, AGC
Asst AG
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INCLOSURE 1 (Riverine Operations - 2d Howitzer Battery) to operational Report-Lessons Learncd, 2d How En, 35th Arty, dated 1 May 1968

1. The 2d Howitzer Battalion, 35th Artillery was tasked to furnish one M109 Howitzer Battery to the 9th Infantry Division. Battery C, 2d How En, 35th Arty was directed to accomplish this mission on 6 November 1967. The mission terminated on 6 March 1968. The following is a summary of the battery commander's after action report:

2. Task Organization: The battery was involved in combat operations with units listed below:
   a. 1st Bde, 9th Inf Div
   b. 2d Bde, 9th Inf Div
   c. 5th Inf Bn (VNMC)
   d. Btry A & B, 1st Bn, 84th Arty
   e. Task Force Funston
   f. 7th ARVN Division
   g. Task Force 117 - Riverine Assault Force

3. Supporting Forces:
   a. 7th USLIF
   b. VNLF
   c. US Army Aviation
   d. 19th and 246th PSYOPS Co's

4. Control or Command Headquarters: 9th Inf Divarty; 2d Bde, 9th Inf Div. Battery C was attached to the 9th Inf Divarty and subattached to the 1st Bn, 84th Arty during the reporting period.

5. Intelligence: The disposition of enemy forces remained essentially stable throughout the period. Individual main force units moved within the province for tactical purposes, while local force elements appeared primarily engaged in local operations. No influx of new units or NVI elements was reported.

6. Missions:
   06 Nov 67 - 13 Dec 67: GSR, 3d Bn, 84th Arty
   14 Dec 67 - 11 Feb 68: Reinforced 3d Bn, 84th Arty
   11 Feb 68 - 18 Feb 68: BS, 5th Bn, 60th Inf
   10 Feb 68 - 20 Feb 68: BS, 2d Bn, 39th Inf
   20 Feb 68 - 25 Feb 68: Reinforced 3d Bn, 84th Arty
   25 Feb 68 - 06 Mar 68: GS, 1st Bde, 9th Inf Div

7. Concept of Operations: To displace from Bien Hoa, YT25154 on 6 Nov 67 and move by road to Dong Tam, X3310443, to support the 2d Bde, 9th Inf Div during an operation tentatively scheduled for three weeks.

8. Execution:
   a. Battery C was alerted for movement to Dong Tam at 051600 Nov 68. The following morning at 0600 hours, the unit displaced from Bien Hoa and arrived at Dong Tam at 1730 hours. During the following three weeks, the battery deployed on numerous operations in conjunction with the 2d Bde, 9th Inf Div. On 25 Nov, the battery's status and mission were extended for an indefinite period.

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The nature of the commitment for the subsequent time span remained basically the same. It was characterized by five to ten days in the field with an intervening two to four day rest and maintenance period at Dong Tam. Each time the battery closed at Dong Tam, it went into support of Task Force Funston. This called for the firing of H&I's, intelligence targets, contact missions and counter mortar/rocket fires for base security elements and ARVN ground forces.

b. On 2 Feb 68, the unit returned from FS/PB Giao Duc, WS975401, and began to support US forces engaged in the counter T2? Offensive along Highway 4 and in and around My Tho. On 20 Feb 68, the battery was recalled from its role in support of the 1st Bde, 9th Inf Div, and embarked for Can Tho and a subsequent roadmarch to Phung Hiep, WR304845. Here the unit assisted the 2d Bde in its attempt to relieve pressure on Can Tho by conducting a raid on the enemy's corp level headquarters to the southwest of Phung Hiep.

c. After the battery returned to Dong Tam on 25 Feb 68, it remained in its static mission of Task Force Funston support until 6 Mar 68. At 1010 hrs on 6 Mar, the unit was relieved from its attachment to the 9th Inf Div and road marched from Dong Tam to FS/PB Paris, YT133082, and assumed missions of GS, IIFFORCEN and reinforcing the 2d Bn, 40th Arty.

d. Husky Charlie, as the unit was known throughout the operational area, was the first 155mm SP artillery battery committed to the conflict in the Mekong Delta. Need for its presence arose because the 105mm barge-mounted artillery was restricted in its penetration of streams and canals, and a farther reaching, heavier projectile was required to fill gaps and to add desired destructive power. Initially, when the battery arrived, no experience factors were available and the battery was moving on virgin territory. With aerial reconnaissance seriously restricted due to security reasons, as well as non-availability of aircraft, the greatest amount of flexibility had to be maintained in the execution of plans. The unit met the ever present challenges and succeeded in providing what is a must for any artillery unit, namely, timely, accurate and effective fires.

e. The battery fired a total of 2,817 missions expending 38,136 rounds of ammunition during the operational period.

9. Results:

a. Friendly KIA: None  b. Friendly WIA: 6

All wounds were caused by enemy mortar fragments. Of those wounded, only one soldier required hospitalization. The remainder were treated on the spot and returned to duty.

c. Equipment and Material Losses: Assorted tires, fuel tanks, radiators, mess equipment and personal clothing damaged by mortar rounds.

d. Enemy KIA: 201 confirmed

e. Enemy WIA: Unknown

f. Structures destroyed or damaged: 49 huts and 18 sampans

g. Kilometers traveled by water and land: 1,500 km

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10. Administrative Matters:

a. Personnel Records and Pay: Although the battery was attached to the 9th Inf Div, all records continued to be maintained by the parent unit.

b. Mail: Mail and distribution were delivered by battalion representatives at frequent intervals, normally every other day. No hardships were experienced.

c. Rest and Recreation: A normal R&R program was maintained. Personnel bound for out-of-country R&R sites were returned to the Long Binh area for out-processing. In-country R&R personnel were dispatched directly to Vung Tau.

d. DMOS and Replacement Personnel: Personnel returning to CONUS out-processed at Long Binh through Battalion and 54th Artillery Group facilities. Equipment turn-in was handled by battery personnel maintaining the base camp at Bien Hoo. Incoming personnel were processed through the same channels.

e. Treatment, Evacuation and Hospitalization of Personnel:

(1) Dong Tam: While positioned at Dong Tam, medical facilities available were the 9th Surgical Hospital and the 61st Medical Detachment. Normal sick call was handled by the medical detachment.

(2) Field Positions: Battlefield casualties were processed, as a rule, thru the hospital barge which normally accompanied the 3d Bn, 34th Arty. After screening, appropriate cases were transferred to the USS ELMER NH, where a surgical team was on standby to stabilize serious cases prior to evacuation to the surgical hospital at Dong Tam.

(3) To prevent the occurrence of skin disease, instructions were issued to reduce the wearing of shirts to a minimum and to air feet as much as possible. Shower buckets were provided and every effort made to obtain sufficient water for showers. As a result no skin diseases developed.

(4) During the hours of darkness, shirts were worn with sleeves rolled down. Despite the large number of mosquitos, no malaria cases developed.

(5) No health problems were encountered.

f. Claims: In case of claims for damage resulting from US activities in a given area, the claimant should be referred to the district chief for all necessary paperwork and payment. This procedure was followed when two of the buildings adjoining Cai Ba's south landing site were partially demolished by LCU's during off-load operations.

g. Relations with Local Population:

(1) Since about 80% of Binh Thang Province was considered sympathetic to the enemy, all hamlets, villages and towns were declared off limits by the unit commander.

(2) While occupying positions with ARVN or RF/PA Outposts, an amiable relationship developed between the Vietnamese and American troops.

(3) Close liaison was established with US Advisors and their
h. Maintenance:

(1) Organizational Maintenance:

(a) Due to the frequent moves executed by the battery and the number of rounds fired, vehicular and howitzer maintenance were of primary importance. In order to accomplish a maximum amount of work in a minimum amount of time, the authorized maintenance section was augmented by additional personnel. With two exceptions, the unit had only between one and three days between moves to make necessary repairs. Even during this period, vehicles and weapons were operationally committed to a great extent. Initially the whole maintenance section accompanied the battery when in the field. Experience, however, showed that only a small number of needed repairs could be accomplished due to space, equipment and tactical limitations. At that point the decision was made to establish and maintain maintenance facilities at the Dong Tam base and to leave vehicles for maintenance behind as deemed appropriate. Necessary PLL items, tools and one each artillery and wheeled vehicle mechanic continued to accompany the battery.

(b) It was generally found that to designate a fixed maintenance time while in the field was not feasible due to the operational commitments such as resupply convoys, moves and fire missions. While stationed at Dong Tam, all available time was devoted to maintenance and repairs.

(2) Support Maintenance:

(a) Towards the end of the operation and with no new howitzers in sight, the decision was made to phase howitzers and M548's into the 2d Maint Bn at Vung Yen for a general overhaul and needed repairs. About 50% of the crew accompanied the vehicles. About two weeks before the battery left the Delta, a combat team with a turret specialist in charge arrived from the 2d Maint Bn. All vehicles and howitzers were ID'ed and corresponding requisitions submitted. Under the very capable and energetic leadership of the team chief, parts began to arrive.

(b) Small arms, radios and associated items were repaired or repair parts furnished to the battery by 3 Co, 709th Maint Bn, a 9th Inf Div support unit.

(c) Items which at times were in critical and sudden demand and for which no sudden replacement was available, were hand made at a Navy machine shop anchored in the Dong Tam basin. Sample items were shafts for the manual traversing system, shifting forks for the M109 governor, etc.

(3) Primary Problems:

(a) M109 howitzer: The primary problem with the howitzer was automotive. Many of the problems were caused by the cooling system which appears to be underdesigned. Radiators sprung leaks repeatedly, causing engines to overheat. This in turn led to cracked heads and melted injector tips. Radiator fans became inoperative and broken gages and corresponding sending units could not be replaced. Fuel tanks sprung leaks and were repaired as time became available. Engines were placed under particular strain because of inoperative air filter systems in four howitzers. Missing clamps, hoses and blower motors had been placed on Red Ball Expanded requisition in August. At this time they have not yet been filled.
Unfiltered air, highly contaminated by dust and sand, was thus permitted to be sucked directly into the supercharger without first passing through the air filters. The artillery portion of the weapon performed well. The only problems were seals which wore out through normal use and for which replacement was hard to find. The main concern in such a comparatively isolated location as Phong Tarn was the replacement of spare parts. Qualified personnel to perform all necessary repairs were found within the battery itself. In order to reduce the deadline time, as much as was possible, each howitzer was called out of action for maintenance at least for a half day each week. At that time the breech mechanism was disassembled, all sliding surfaces deburred, and all parts and mechanisms serviced and lubricated as required.

(b) It was found that the M578 VTR was not capable of towing M109 howitzers for any distance. Since howitzers are the items most likely to break down, and the resulting recovery distances are normally considerable, a substitute vehicle for meeting towing requirements for a medium SP battery should be found.

(c) M548 Cargo Carrier: Due to the problems encountered with the M548, this vehicle should be returned to the service test stage of development and subjected to vigorous tests. The concept of the vehicle is a good one, but break downs in the cooling system, transfer, transmission, and electrical system make it highly undependable in a convoy under combat conditions.

(d) Wheeled Vehicles: No unusual problems developed among wheeled vehicles. Normal problems encountered were an occasional broken axle, steering difficulties, electrical shorts and worn out brakes. A considerable amount of tires were replaced. At times it was difficult to obtain 5-ton truck tires and inner tubes.

(e) Batteries: Batteries of all types and acid were in short supply at all times during operations.

(f) Nitrogen supply: Recommend that each firing battery operating independently in areas isolated from competent ordnance support be furnished with nitrogen and necessary gages and hoses. These items are required in order to service the howitzers nitrogen system and optical instruments. Otherwise, unnecessary and unacceptable delays in the repair of the weapons will result.

11. Conclusions:

a. That the employment of the M109 howitzer is feasible in the delta area of Vietnam.

b. That the M109 howitzer is preferable to the M114 howitzer due to its inherent 6400 mil capability, ease of placement and greater mobility and fire power. The need of trail pits and a hardstand for the pedestal make the M114 impractical in an area where the water level during the rainy season is above the level of the ground. A self-propelled unit with its direct fire capability and comparatively large number of machine guns may travel and be positioned with a smaller security element.

c. That a medium artillery unit in the delta is a requirement. The more powerful projectile gives added punch against the well constructed enemy bunkers as well as enemy ground forces. The increase in range over the 105mm howitzers increases the reach of the friendly arms into areas where the enemy used to be immune to artillery fire.
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d. That the appearance of 155mm howitzers in an area where they were previously unknown, shifted the balance of power. Fires were made available to the local friendly forces and the mere sight of the armored vehicles gave new and impressive evidence and assurance of US involvement in a sector where assistance had previously been limited to largely advisory terms, only.

e. That the riverine artillery and infantry units made full use of the battery by prepositioning it to cover the entry and egress from an operational area.

f. That personnel adjusted themselves well to the prevailing combat conditions and that equipment withstood the rigors of combat, constant water and road travel very well.
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2d Battalion 35th Artillery Sorn of Control Chart during period 1 Feb 68 - 30 Apr 68
Operational Report -- Lessons Learned. Headquarters, 2d Howitzer Battalion, 35th Artillery,

Experiences of unit engaged in counterinsurgency operations, 1 Feb - 30 Apr 1968

CO, 2d Howitzer Battalion, 35th Artillery

1 May 1968

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