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DEPARTMENT OF THE ARMY

II FIELD FORCE VIETNAM

23D ARILLERY GROUP

APO US Forces 96525

AVAC-C

11 May 1966

SUBJECT: Operational Report on Lessons Learned (AGS GSGPO-28 (RI)) (U)

TO: Commanding General

II Field Force Vietnam: Artillery

ATTN: AVXFA-C

APO US Forces 96227

Commanding General

United States Army Vietnam

ATTN: AVC

APO US Forces 95307

Commander in Chief

United States Army Pacific

ATTN: GPOP-MH

APO US Forces 96558

TO: Assistant Chief of Staff For Force Development

Department Of The Army

Washington, D. C. 20310

SECTION I

1. Significant Headquarters or Unit Activities:

a. (A) Administration/Personnel

(1) This headquarters is assigned to United States Army Vietnam (USAV) and operates as a major command in all personnel matters, except that General Courts Martial jurisdiction is held by the Commanding General, II Field Force Vietnam, effective 15 April 1966, and awards are administered by Commanding General, USAV.
(2) Normal SI activities have been conducted since the last quarterly report dated 14 January 1966.

(3) Strength.

a. Authorized and assigned strength for the period ending 30 April 1966:

<table>
<thead>
<tr>
<th>UNIT DESIGNATION</th>
<th>AUTHORIZED OFF WO EM</th>
<th>ASSIGNED OFF WO EM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHD, 23d Arty Gp</td>
<td>15* 1 90</td>
<td>19* 2 102*</td>
</tr>
<tr>
<td>2/13th Artillery</td>
<td>27* 3 486</td>
<td>32* 2 469*</td>
</tr>
<tr>
<td>6/27th Artillery</td>
<td>35* 4 544</td>
<td>37* 4 533*</td>
</tr>
<tr>
<td>2/32nd Artillery</td>
<td>32* 4 513</td>
<td>32* 4 518*</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>109 12 1638</td>
<td>120* 12 1628*</td>
</tr>
</tbody>
</table>

* Included in-country air section augmentation pending approval of MTOE. (Aug: 11 Off, 20 EM)

b. Changes during the period included:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30 1 805</td>
<td>25 1 728</td>
<td></td>
</tr>
</tbody>
</table>

g. Casualties during the period included:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Killed in action</td>
<td>5</td>
</tr>
<tr>
<td>Died of battle wounds</td>
<td>1</td>
</tr>
<tr>
<td>Wounded in action</td>
<td>27</td>
</tr>
<tr>
<td>Missing in action</td>
<td>0</td>
</tr>
<tr>
<td>Non battle death</td>
<td>0</td>
</tr>
<tr>
<td>Non battle casualties</td>
<td>7</td>
</tr>
</tbody>
</table>
(4) Personnel Management. The personnel sections of the three assigned battalions have been consolidated into a group personnel section and co-located in a Group rear base camp. The consolidated personnel section consists of pay, management and records sub-sections. Each of the personnel warrant officers supervises one sub-section under the control of the Group S1. This consolidated group personnel section, which is similar to the personnel service division organic to the infantry division, has increased overall efficiency by reducing individual battalion reports. It has proven particularly effective in processing replacements and returnees.

(5) Morale. The morale of the command is outstanding.

(6) R & R Program. The following out-of-country R & R's have been allocated this command.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkok</td>
<td>18</td>
<td>32</td>
<td>16</td>
<td>37</td>
</tr>
<tr>
<td>Tokyo</td>
<td>14</td>
<td>11</td>
<td>13</td>
<td>51</td>
</tr>
<tr>
<td>Manila</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>7</td>
<td>17</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Taipei</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Singapore</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>50</td>
<td>59</td>
<td>50</td>
<td>149</td>
</tr>
</tbody>
</table>

(7) Decorations and Awards. The following awards and decorations have been presented during this period:

- Purple Heart ____________________________ 34
- Air Medal (Merit) _______________________ 5
- Commendation Medal (Valor) ________ 2
- Commendation Medal (Merit) ___________ 2
- Bronze Star (Merit) ____________________ 3
- Bronze Star (Valor) ____________________ 3
- Distinguished Flying Cross ____________ 1
(8) Mail. Unit mail clerks pick up and deliver mail from nearest postal section as follows:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>APO NO</th>
<th>SUPPORTED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Infantry</td>
<td>93379</td>
<td>Division</td>
</tr>
<tr>
<td>1st Infantry</td>
<td>96609</td>
<td>Division</td>
</tr>
<tr>
<td>6/27th Artillery</td>
<td>96307</td>
<td>Hq, USARV</td>
</tr>
<tr>
<td>2/32nd Artillery</td>
<td>96307</td>
<td>Hq, USARV</td>
</tr>
</tbody>
</table>

(9) Religious Services. Regular schedules of Protestant and Catholic services are held weekly. The Protestant and Catholic chaplains assigned to this headquarters and the chaplains from the 1st Infantry Division are utilized on an area coverage basis under the supervision of the 1st Infantry Division chaplain. The Group Catholic and Protestant chaplains visit each battery within the group once each week for counselling sessions.

(10) Medical. Each battalion and Headquarters Battery, 23rd Artillery Group operates a medical section. Statistics include:

- Total patient visits (unit personnel) 2,500
- Admitted to hospital (in-country) 70
- Evacuated out of country 14
- Malaria cases 2

(11) Discipline, Law and Order. Judicial and non-judicial actions by units include:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>ARTICLE SUMMARY SPECIAL</th>
<th>GENERAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COURT</td>
<td>COURT</td>
</tr>
<tr>
<td>HIB, 23d Artillery Gp</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>2/13th Artillery</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>6/27th Artillery</td>
<td>44</td>
<td>2</td>
</tr>
<tr>
<td>2/32nd Artillery</td>
<td>26</td>
<td>1</td>
</tr>
</tbody>
</table>
(12) Safety. Recordable accidents by units are:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>VEHICLE</th>
<th>AIRCRAFT</th>
<th>PERSONNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSB, 23d Artillery Gp</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2/13th Artillery</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6/27th Artillery</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2/32nd Artillery</td>
<td>5</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

(13) Education. Personnel utilize USAFI and extension courses to further their education. No local off duty educational classes are being conducted at this time; however, such a program under the USARV education officer is planned.

b. (C) Intelligence

(1) During the reporting period the S2 section conducted an extensive aerial observer training program to qualify sufficient personnel as aerial observers. As a result of this program, the Group acquired the capability to maintain twenty-four (24) hour surveillance over the group area of responsibility. At the present time, the group averages approximately fourteen (14) hours of aerial surveillance daily. Approximately 50% of this aerial surveillance is conducted during the hours of darkness. The size of the group's surveillance area is approximately eighty (80) kilometers by one hundred (100) kilometers. This extensive surveillance program has permitted the Group to place more effective observed fire on enemy locations around-the-clock.

(2) In addition to meeting the aerial surveillance requirements of the Group, surveillance and reconnaissance support was furnished to the 1st Infantry Division during operations Abilene, Lexington and Birmingham.

(3) The minor administrative problems mentioned in the previous reports have been corrected by the publication of pertinent directives by higher headquarters. On 21 April 1966, this headquarters successfully completed a counter-intelligence inspection conducted by Headquarters United States Army Vietnam, which included a 100% inventory of classified documents.

(4) An instantaneous intelligence link between intelligence agencies and the firing unit is required. Most target information received from higher echelons is approximately five (5) days old. In view of the mobility of the Viet Cong this is totally unsatisfactory. With the elaborate devices and
vast numbers involved in the intelligence field there should be better targets available to the heavy artillery. It appears that this information (intelligence) is available for briefings, charts and file cards, but not to the heavy artillery - the shooters - on a sufficiently timely basis to permit targets to be effectively attacked.

c. (S) Training

(1) In April the 23d Artillery Group began training additional air observers to support its 24 hour surveillance program. This air observer training will continue on a recurring basis.

(2) The 2nd Battalion, 13th Artillery culminated its air mobile training with an actual displacement of howitzers by CH47 Chinook in March 1966.

(3) All Group units have stressed radio training to facilitate receipt of the new VRC-12 series radios. Units of the Group are receiving these radios at this time.

(4) On the job training and cross training continues on a daily basis to insure high individual proficiency and smooth unit operations. In one instance, an 8 inch battery and a 175mm battery exchanged weapons for an operation in order to insure necessary cross training and unit proficiency.

(5) Units of the 23d Artillery Group have received training in basic infantry subjects with emphasis on combat patrolling.

(6) Nuclear capable units of the 23d Artillery Group are scheduled to send special weapons personnel to 8th US Army units in May for refresher training.

d. (S) Operations

(1) During the greater portion of the reporting period of 1 January 1966 to 30 April 1966, the operations and intelligence section of the 23d Artillery Group Headquarters operated jointly with the operations and intelligence section of the 1st Infantry Division Artillery. On 22 April 1966 the operations and intelligence section of the group began independent operations. During the temporary absences of the 1st Infantry Division Artillery, such as Operation Birmingham, the 23d Artillery Group Headquarters controls tenant units at Phu Loi base camp, coordinates defense of the installation, and is responsible for artillery fires in 1st Infantry Division's TACOM. In addition, the group assumes control of all 1st Division Artillery units.
remaining to defend the base camp areas.

(2) On 15 March 1966, the 23d Artillery Group and its assigned units were relieved from operational control of the 1st Infantry Division and placed under operational control of II Field Force Vietnam. There were no changes in missions of the 23d Artillery Group or its assigned units at that time. On 22 March 1966, the 23d Artillery Group and its assigned units were relieved from operational control of II Field Force Vietnam and placed under operational control of II Field Force Vietnam Artillery.

(3) Effective 12 April 1966 the mission of the 23d Artillery Group was revised as follows:

a. General support of II Field Force Vietnam and III ARVN Corps.

b. General support - reinforcing the 1st US Infantry Division Artillery, 25th Infantry Division Artillery, and the 3rd Battalion, 319th Artillery, of the 173rd US ARVN Brigade (Sep). This support is rendered from appropriate base camp positions. From Phu Loi (vie XT847152) the 2nd Battalion, 13th Artillery has the mission of general support - reinforcing the 1st Infantry Division Artillery. The 6th Battalion, 27th Artillery (-) at Phou Vinh (vie XT961487) supports the 1st Battalion, 5th Artillery of the 1st Infantry Division Artillery in a role of general support - reinforcing. Battery A of the 6th Battalion, 27th Artillery at Bear Cat (vie XT952150) received a mission of general support - reinforcing the 1st Battalion, 7th Artillery of the 1st Infantry Division Artillery. From Cu Chi the 2nd Battalion, 32nd Artillery (-) (vie XT641142) has a mission of general support - reinforcing the 25th Infantry Division Artillery. Battery B of the 2nd Battalion, 32nd Artillery, located at Lai Khe (vie XT757372) in general support - reinforcing the 2nd Battalion, 33rd Artillery of the 1st Infantry Division Artillery.

(4) During the period of 1 to 15 January 1966, all tubes of the 23d Artillery Group were calibrated by the 367th Ordnance Detachment from Okinawa using the chronograph and pullover readings.

(5) During the period 302340 to 310005 January 1966, the 23d Artillery Group Headquarters was under mortar attack. Approximately 34 rounds of 60mm and 81mm mortar rounds fell within the Group Headquarters. Four (4) light casualties were sustained. Equipment damage was light. Approximately 100 mortar rounds landed throughout the Phu Loi base camp inflicting light damage and light casualties. Phu Loi was mortared again on 260130 February 1966. Approximately 12 to 16 rounds landed.
in the Phu Loi area but none in the immediate vicinity of HHB Battery of the Group. Three rounds did land in Battery A, 2nd Battalion, 13th Artillery area resulting in one (1) KIA and four (4) WIA.

(6) The 23d Artillery Group's Indirect and Neutralization Program (IHN), which involved coordinating and planning of US artillery HIN fires in the III ARVN Corps area, was taken over by II Field Force Vietnam Artillery in April 1966. The program had proven successful and was considered as a highly effective contribution by the 23d Artillery Group in coordinating US artillery efforts within III ARVN Corps prior to the arrival of II Field Force Vietnam Artillery.

(7) Throughout the period 1 January 1966, to 30 April 1966, the units of the 23d Artillery Group have continued to provide aggressive artillery support for units of II Field Force Vietnam and III ARVN Corps. Artillery support has been provided in direct support of both US and ARVN ground gaining forces, US and ARVN convoys, reinforcing fires of other artillery units and responsive on-call fires for base camps, patrols, outposts and special operations. In addition to supporting numerous US company size search and destroy and saturation patrolling operations within and near US Tactical Areas of Responsibility, units of the 23d Artillery Group have also supported several ARVN operations within III ARVN Corps. During the past 4 months 23d Artillery Group units have participated in the following major US operations: Buckskin, Crimp, Flush, Buckskin Bravo, Circle Pines, Quick Stop, III and IV, Malab, Rolling Stone, Mabel, Abilene, Lexington, Honolulu, San Francisco, Silver City, Pittsburgh and currently Birmingham.

(8) Ammunition expended by units of the 23d Artillery Group during the reporting period is as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Missions</th>
<th>105mm</th>
<th>8 inch</th>
<th>175mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Bn, 13th Artillery</td>
<td>7,769</td>
<td>26,504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th Bn, 27th Artillery</td>
<td>6,898</td>
<td>6,671</td>
<td>4,834</td>
<td></td>
</tr>
<tr>
<td>2nd Bn, 32nd Artillery</td>
<td>5,716</td>
<td>5,184</td>
<td>9,685</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>24,383</strong></td>
<td><strong>26,504</strong></td>
<td><strong>12,055</strong></td>
<td><strong>14,519</strong></td>
</tr>
</tbody>
</table>

(9) In spite of systemic shortcomings, the 175mm gun has proven to be of great value in Vietnam. It is an extremely
accurate weapon that provides valuable support to isolated ARVN outposts, Special Forces camps, long range patrols, and special operations. In addition, the weapon is able to reach Viet Cong havens which were previously attacked only by air strikes during daylight hours. Another advantage of the 175mm gun, as well as the 5 inch howitzer, is that support can be rendered considerable distances from base camp locations with little reaction time. This weapon has been used with great effectiveness in preparing landing zones from long range. By obviating the necessity to prematurely deploy light and medium artillery, a greater degree of surprise has been gained in assault landings. Although the group has experienced considerable difficulties due to systematic weaknesses in the M107 system, the advantages achieved by its employment in Vietnam far outweigh the fact that it is a maintenance nightmare. The "doubters" of the worth and effectiveness of the 175mm gun in Vietnam have been proven wrong as the long range fires of this weapon have had a devastating effect on the enemy both day and night.

(10) The Azimuth Coliminator has been issued to units of the 23rd Artillery Group and tests are being conducted at this time to establish its value in the Vietnam environment.

o. (c) Logistics:

(1) General: During the period 1 January 1966, to 30 April 1966, the general condition of supplies has improved throughout the area in which the group is deployed. Problem areas remain but there has been general improvement in all classes of supply.

(2) Transportation: The truck assets of the group are insufficient to meet stockage objectives of Class V for the more isolated areas and airlift has been resorted to at times to resupply critically needed Class V items. The use of aerial resupply is necessary only when ground convoys are not scheduled frequently enough and the roads are not opened and cleared by the supported unit. Air transportation is considered a secondary method of delivery for Class V due to the low capacity of aircraft to lift heavy artillery ammunition. It is felt that the service elements should have additional transportation capability to augment unit ammunition sections for resupply convoys and to support base camps when part of the battalion's service battery ammunition trains are otherwise committed in support of field operations. The very wide front over which the group is deployed makes pooling of all ammunition vehicles very difficult at times.
(3) Maintenance, care and repair of equipment:

a. Maintenance of M10 and M107 weapons. Supply of repair parts for the M10 and M107 have been in critically short supply. Some relief has been gained however by the increased amounts of parts procured via Red Ball from CONUS during the quarter. Stockage of these parts has been concentrated in the 185th Ordnance Battalion to provide support for the divisional direct support companies. In addition, the 185th Ordnance Battalion is training a team to augment the direct support companies within the zone of operation of the Group. As a result of parts arriving from CONUS and the improvements in the "Red Ball" system on critical parts, the deadline time of weapons has been reduced, but is still unsatisfactory. EIR's have been submitted on the parts failures of M107 and M10 to help correct some of the defects found in these two systems. PLL for the weapons are a problem, but action is being taken to get the necessary PLL to the units for replacement of parts that fail. Tube replacement requirements for the 175mm gun have continued to be high due to restrictions (400 rounds per tube) limiting the number of rounds that may be fired from the tubes together with the high rate of ammunition expenditure required. Approximately one tube is required per weapon every 30-45 days. There are inherent weaknesses in these systems that require endless maintenance and spare parts. Until these weaknesses are corrected there will continue to be frequent breakdowns.

b. Maintenance of tactical generators has been a definite problem area throughout the Group. The shortage of repair parts for generators has resulted in generators being deadlined for extensive periods of time. Approximately 40% of the Group's generators are constantly on deadline for parts. There has not been any indication of improvement in this area and more generators can be expected to fail as the number of hours of operation increases. Heavy generators are required for base camps to reduce the number of hours of operation on the smaller tactical generators and prevent them from being deadlined when needed for field use.

g. Maintenance of clothing and equipment: The DX system is in effect for items of clothing and the supply of those items has improved over the quarter. The regular fatigue uniform and leather boots have been issued as replacement items for worn out fatigues and boots. There have been very few items of jungle fatigues and jungle boots issued to units of the 23d Artillery Group. DX of uniforms should continue to improve as more stocks become available. Jungle fatigues and jungle boots are essential in artillery units due to their quick drying characteristics. During the monsoon season the leather boots never get dry and soon rot.

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X-10
d. Maintenance of vehicles. Repair parts have been in short supply, especially for the M211 truck. The 2nd Battalion, 13th Artillery is short on 2½ ton trucks as a result of unserviceable M211 trucks being turned in for salvage. If these shortages continue, this unit will be in critical condition to move by vehicles to an operation. There is no firm forecast for replacement vehicles to be issued to this unit.

(4) Supply Operations: Due to a change in units that support the Group for Class II and IV, additional delays were encountered in getting items of supply for the units. Now that the support of the units has stabilized, more items are being obtained. The opening of the self service store has eliminated some of the problems on expendable office supplies and janitorial supply shortages.

f. (C) Aviation

(1) Aviation activities expanded throughout the reporting quarter. At the end of December 1965, the group had a total of 6 aircraft. During January and February 1966, the number of aircraft expanded to a total of 15 aircraft. Each battalion now has two (2) OI observation airplanes, and one (1) OH13 observation helicopter. The group headquarters has three (3) OI observation airplanes, two (2) OH13 observation helicopters and one (1) U6 utility airplane. The OI aircraft are employed primarily in observation and reconnaissance activities to seek and destroy targets. The OH13 are used for command and control, reconnaissance, and administration support. The U6 is the Group's utility aircraft. Its missions include daily courier service, movement of personnel for meetings, staff visits, replacements, movements of priority cargo such as Red Ball repair parts, DX clothing, etc, and, at night, the aircraft is equipped with flares and provides on-call flare illumination in the Corps tactical zone.

(2) The increase in aircraft caused a corresponding increase in air operation. In December 1965, the group flew 262 hours comprised of 501 sorties. In March 1966, the group flew 978 hours during the conduct of 1,721 sorties. During the current reporting period, the Group flew 2,952 hours in 5,206 sorties. Basic performance statistics are provided below:

<table>
<thead>
<tr>
<th>Month</th>
<th>Admin</th>
<th>Total</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>71</td>
<td>120</td>
<td>209</td>
</tr>
<tr>
<td>Feb</td>
<td>276</td>
<td>370</td>
<td>440</td>
</tr>
</tbody>
</table>
(3) During the reporting period, the group developed techniques for effective night observation and adjustment of fire. The problems encountered were manifold, but effective training of aircrews has overcome the obstacles of low level night operations. Most of the fixed wing aviators were assigned directly from flight school and therefore had no exposure to night operations other than landing or taking off. Aviators were not transitioned to night operations until they had become thoroughly proficient in day operations. Most aviators transitioned easily to the night phase, however, several were slow to adopt because of limited previous experience with night flying. At the end of this reporting period, only one aviator remains in the training program. Observers also have difficulty adjusting to night observation mainly in the area of orientation. The most effective transition to night observation is accomplished after the observer becomes fully proficient in day observation and possesses a detailed familiarity with the terrain features.
Based upon approximately seven (7) months of combat in Vietnam, it has been determined that the OH (Bird Dog) aircraft cannot be replaced by any rotary wing aircraft for artillery observation. Further, observation aircraft must remain with the units that use them. The pilot and observer team and they must be organic to the artillery battalion team. It has been proven conclusively that the Group and its battalions have efficiently and effectively used their organic aircraft.

**g. (U) Civic Action Psychological Operations**

(1) On 11 March 1966, the HH Battery of the 23d Artillery Group formally adopted the Phu Hao maternity clinic for purpose of dispensing medical advice and medicine.

(2) Currently, the 23d Artillery Group is working on plans for the City of Gadsden, Alabama, (the city which adopted the 23d Artillery Group) to sponsor a Vietnamese refugee village of 400-500 people. The 23d Artillery Group continues to stress an active, aggressive civic action program by attached units.

(3) Elements of the 23d Artillery Group have participated in psychological warfare by providing air observers aboard a C47 aircraft in support of the 246th PSYOP Company during the months of March and April 1966.

**h. (C) Problem areas.**

(1) The OH-3S helicopter has proven to be completely unsuitable for night operations due to lack of night equipment, excessive noise, vulnerability to fire, and low loiter time over target area.

(2) The ARC 54 series radio in the aircraft has proven highly unreliable and of very short range.

(3) Aviators coming directly from the aviation school are generally deficient in night observation and therefore must be trained in the unit even though the unit is already engaged in combat.

(4) Timely target acquisition remains a major problem in Vietnam.

(5) Targets of opportunity are sometimes lost because of lack of timely clearance from province, district or village level.

(6) The short tube life span of the M107 remains a problem of concern (tube life is now based on 400 rounds regardless of charge).
(7) A white phosphorous (WP) round is needed for the 175mm gun and 8 inch howitzer systems.

(8) The AN/MPQ4 radar currently in use in Vietnam is too limited in its horizontal scan and unless it happens to be oriented in the proper direction at the beginning of a mortar attack, it is ineffective.

(9) The M10 and M107 systems have engineering difficulties which result in the system being too fragile.

(10) PLL spare parts for the M107 and M10 are critically short.

(11) Units do not have sufficient large generators and proper size and amount of wiring to run electrical equipment in base camp areas. Power requirements in base camp areas for refrigerators, lights, appliances and perimeter lighting require more power than is available from tactical generators.

(12) The group has insufficient vehicles to resupply its units over long distances when convoys run infrequently to remote areas of deployment. In addition, the 5 ton cargo vehicles presently issued to the ammunition sections of heavy artillery SP battalions are inadequate. These trucks cannot traverse difficult terrain as well as the SP tracked vehicles.

(13) Units in Vietnam are authorized tents on the basis of one GP medium tent per 16 men. This is not sufficient tents especially during the wet season. There should be a maximum of 10 personnel per tent. In addition, a considerable amount of time is spent in building tent frames and floors for tents.

(14) There is a critical shortage of meteorological expendables. Units requested these expendable supplies upon arrival in Vietnam, but to date very few expendables have been issued and the supplies brought over by the units are nearly exhausted. This matter has been brought to the attention of USARV and 1st Logistical Command and they are attempting to alleviate the problem. The following meteorological items are in critical short supply and unless received in the very near future unobserved artillery fires will have to be drastically curtailed.

FSH

6135-635-6370 Battery pack, BL-259/AM
6810-656-1036 Calcium chloride, dehydrate
6660-408-4560 Calcium Hydride charge, ML-305
This organization has found the TOEs to be inadequate in providing sufficient personnel to sustain twenty four (24) hours, seven (7) day a week operation. Each battalion and the Group headquarters is responsible for a large portion of perimeter in base areas and during operations. During base camp operations they must provide ten (10) - fifteen (15) man patrols to better ensure security. This is a drain on manpower. Fire direction crews are not adequate for twenty four hour operation. It appears that TOE were designed to sustain a unit during a seventy two (72) hour period. The operation here in Vietnam is continuous all day, all week, every month and the commander still must allow for leaves, passes, sicknesses and casualties.

SECTION II

2. Lessons Learned

a. (C) Defend against VC mortar attacks.

(1) By obtaining prior clearance for preplanned concentrations near or in likely VC mortar positions, it is possible to reduce the intensity and duration of mortar attacks upon base camps by firing these concentrations when initial mortar rounds are received and have not been located.

(2) Instantaneous engagement of likely enemy mortar positions by artillery can succeed in breaking up the attack.

b. (C) Encouraging ARVN to establish free fire areas in VC territory can expedite engagement of targets.

(1) By establishing free fire areas in conjunction with ARVN it is possible to engage targets of opportunity in hostile areas with minimum loss of time.

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II-1
(2) Targets located in free fire areas are engaged without loss of time involved in clearing when free fire areas are established in known VC infested territories.

c. (C) Secondary roads and highways are not secure and individuals should not travel alone.

(1) A lone vehicle with only a driver was attacked by the VC on a route normally open to traffic. The result was one KIA.

(2) At least three vehicles with alert armed personnel should travel together when attempting to travel secondary highways even though open to traffic and considered secure.

d. (C) Reconnaissance by fire.

(1) Enemy targets are difficult to find. Utilizing agent's reports of enemy activity, visual observation of trail use and terrain analysis, areas are selected for will-adjust missions by aerial observer.

(2) Conducting this type reconnaissance by fire has resulted in secondary explosions and drawing of enemy anti-aircraft fire from the suspect locations.

e. (U) Proper placement of equipment.

(1) During a night mortar attack on the group headquarters on 30 January 1966, one casualty was sustained as a result of the individual jumping up to get his steel helmet which was stored on top of a high box.

(2) Necessary combat gear should be stored on the floor for easy and safe access from the prone position.

f. (C) Exact target locations

(1) When making tree-top level surveillance passes in an OH aircraft it is difficult to pin point locations of small arms or automatic weapons fire directed at aircraft from wooded areas. It has proven effective for the observer to have ready a colored smoke grenade for marking prior to making the surveillance pass. The observer must keep the smoke under observation while obtaining coordinates. The VC will attempt to bury the smoke grenade to prevent the observer from pin pointing the target.

(2) Aerial observers must have means available for marking targets, such as smoke grenades during low level surveillance passes.
g. (U) Power supply for AN/GRC-46 Radio

(1) DC generators for the AN/GRC-46 radio teletypewriters were not holding up under extended use.

(2) The use of a rectifier to convert AC to DC power for the AN/GRC-46 allows reduced use of the DC generators.

h. (U) FM radio reception

(1) FM radios (old series) had poor reception at long distances.

(2) By using antenna group RC-292 with additional mast sections to extend the height of the antenna beyond the normal 12 section height, FM reception was considerably improved.

i. (U) AM antenna

(1) Un satisfactory results were obtained by using the doublet type directional antenna with the AN/GRC-46 radio teletypewriter.

(2) By constructing a vertical radiating antenna, using parts from the antenna group AN/GRA-12, increased range and durability were obtained for AM operations.

j. (U) Use of the AVLB in displacing heavy artillery.

(1) The AVLB is invaluable for the movement of heavy artillery over roads that would be otherwise closed. This bridging equipment has been utilized during two operations and these operations were conducted during the dry season. As the monsoon season approaches it will prove even more valuable in keeping heavy artillery mobile.

(2) The AVLB should be available on a corps-wide basis to assist heavy artillery in crossing unfordable streams and defiles.

k. (U) Ammunition sections practice in loading ammunition for airlift.

(1) Aircraft are in short supply and to make maximum use of the aircraft, palletized loads of ammunition must be prepared in advance for each type of aircraft being used to haul loads. The most commonly used aircraft are CH-47, CV-2, CL-23, and C-130.
(2) The loading of these aircraft takes but a few minutes when the correct pallets are used and available. This expedites the flow of the ammunition from the base to the unit located in remote areas.

SECTION III

3.(c) Commanders Recommendations:

a. The 23d Artillery Group battalions should be augmented with or have attached a transportation section for resupply convoys when part of the battalion's service battery ammunition trains are committed in support of field operations. In addition, a crash production program is needed to insure that the XM548 (SP) cargo carrier is issued to self-propelled artillery units in Vietnam at the earliest possible date.

b. Additional generators (30 Kw/Btry) are needed because of high generator failure and down time. Heavy generators should be issued for base camps to reduce the work load of smaller tactical generators. Units of the 23d Artillery Group have requested additional generators in excess of TOE authorization to alleviate this problem.

c. Units deploying from the States should bring GP tent, prefabricated tent frames and floors for the tents. This will save many hours of construction under less favorable conditions and will allow the men more time to devote to the combat missions. In addition, tentage should be computed on the basis of no more than 10 EM per GP medium tent.

d. Units coming to Vietnam should bring enough PLL to last 120 days to cover the period of deployment, setting up accounts, and initial requisition.

e. Better and more timely target intelligence should be provided to the heavy artillery units.

f. Artillery battalions deploying to Vietnam should have an aviation section of two (2) OH and one (1) OH-3 as a minimum.

g. A white phosphorous (WP) round should have priority development soonest for the 175mm gun and 8 inch howitzer.

h. Action should be taken to insure PLL spare parts for the M107 and M110 are located in-country in sufficient quantity and immediately available to the using units.

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III-1
i. A study should be conducted to determine the feasibility of having manual elevation and traversing system for the M107 and M110 as the primary system. The loader-rammer should remain as is.

j. Immediate action should be taken to insure that Meteorological expendables are available in Vietnam.

k. A starlight scope should be developed for use with the O1 aircraft.

l. The AVLB should be available on a corps-wide basis to assist heavy artillery in crossing unfordable streams and defiles.

m. Artillery Group and Battalion TOEs should be modified to provide sufficient personnel to sustain twenty-four (24) hour, seven (7) day a week operations. This organization is now staffing and will submit a modification of the TOE within the next two weeks.

JAMES H. DYSON
Colonel, Artillery
Commanding
TO: Commanding General, II Field Force Vietnam, APO San Francisco 96266

1. (U) The Operational Report on Lessons Learned submitted by the 23d Artillery Group is considered adequate.

2. (C) The following comments are made on the Commander's Recommendations (pa. 3, III-1):

a. Paragraph 3a. When the group has requested vehicles for particular missions, this headquarters has been able to get them. This procedure is considered preferable to providing an augmentation to the battalions in view of the additional maintenance effort required.

b. Paragraph 3b. The 23d Artillery Group has received three generators (5, 10 & 15 KW) since the date of the report and is scheduled to receive three more in the near future. This headquarters will determine if additional generators are needed.

c. Paragraph 3c. Concur. This recommendation is also included in a letter prepared by this headquarters titled "Helpful Hints" which is being sent to all artillery units deploying to III Corps Tactical Zone, Vietnam. In addition to what is recommended here, units should also include all tentage for the main body with the M2 of the advance party.

d. Paragraph 3d. Concur.

e. Paragraph 3e. A problem does exist in shortening the time between locating possible targets and bringing fire on them. This headquarters is investigating this matter.

f. Paragraphs 3f through m. Concur.

ORIGINAL SIGNED
GEORGE R. ALLEN, JR.
Colonel, Artillery
Acting Commander

ARV-6668
AVCO (11 May 66) 2d Ind (U)
SUBJECT: Operational Report on Lessons Learned (CJCS OPC-2d (K1)) (U)
DA: No, II Field Force Vietnam, APO San Francisco 96266 28 MAY 1966
To: Convening General, United States Army Vietnam, ATTN: AVCO, APO US Forces 96307
(U) The Operational Report on Lessons Learned submitted by the 23d Artillery Group as indorsed by II Field Force Vietnam Artillery is considered adequate.

FOR THE COMMANDER:

VERNON R. RIDER
Colonel, ASC
Adjutant General