<table>
<thead>
<tr>
<th>AD NUMBER</th>
<th>AD830813</th>
</tr>
</thead>
</table>

**LIMITATION CHANGES**

**TO:**
Approved for public release; distribution is unlimited.

**FROM:**
Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; 31 JUL 1966. Other requests shall be referred to Office of the Adjutant General (Army), Washington, DC 20301.

**AUTHORITY**
AGO ltr 29 Apr 1980
THIS REPORT HAS BEEN DELIMITED AND CLEARED FOR PUBLIC RELEASE UNDER DOD DIRECTIVE 5200.20 AND NO RESTRICTIONS ARE IMPOSED UPON ITS USE AND DISCLOSURE.

DISTRIBUTION STATEMENT A
APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED.
Best Available Copy
Subject: Operational Report - Lesson's Learned for Quarterly Period ending 31 July 1966, RCS CSFOR-65

TO: Commanding Officer
1st Cavalry Division Artillery, 1st Cavalry Division (Airmobile)
APO 96490

SECTION I: Significant Headquarters or Unit Activities

1. The battalion continued to support the 1st Cavalry Division (Airmobile) from the base camp at An Khe. On 3 May, "E" Battery and "D" Battery moved to firing positions at BR 898520 to support a night movement of the 3rd Brigade from the base camp to the Bong Son area. On the same date the battalion visual metro section moved with the 1st Battalion, 21st Artillery to the Bong Son area. On 4 May, "B" Battery and "D" Battery returned to base camp. On 6 May, "C" Battery moved to a firing position at BR 573452 on operation Steel Horse IV. This was another battalion controlled operation. The battery returned to base camp that evening. During the one day operation, the battery fired 15 WA missions with an expenditure of 239 HE rounds. On 11 May, "B" Battery moved to a firing position at BR 311 460 on operation Steel Horse V. The battery returned that evening. During the operation, 7 registration and 20 WA missions were fired with an expenditure of 208 HE rounds. On 12 May, "C" Battery moved to a firing position at BR 239532. This movement was made to provide protective fires for convoys moving on highway 19 from An Khe to Pleiku. One registration was fired and the battery returned to base camp that evening. Expenditure was 8 HE rounds. On 13 May, "B" Battery moved to a firing position at BR 479 592 to support operation Lewis and Clarke. Later that same day, "C" Battery and a battalion command group joined "B" Battery on the operation. On 14 May, the battalion (-) moved to a new firing position at BR 420629 (vic Kannack). On 15 May, "B" Battery and the battalion command group displaced to BR 482593. That evening, "B" Battery and the battalion command group returned to base camp. On 16 May, "C" Battery returned to base camp. During the operation, 13 FFE, 10 WA, 5 preps, 55 H&I and 1 check round missions were fired with a total expenditure of 363 HE rounds. Concurrently with "C" Battery's return to base camp "C" Battery moved to a firing position at BR 641506 to support operation Crazy Horse. On 17 May, "B" Battery displaced to BR 618562. On 19 May, "C" Battery moved from base camp to a firing position at BR 228532 to again cover the movement of convoys on highway 19. That same date, "E" Battery fired their first mission. "E" Battery is a battery formed from personnel organic to this battalion and equipped with four (4) 155mm howitzers.
SUBJECT: Operational Report—Lesson's Learned for Quarterly Period ending 31 July 1966, RC CSFOR-65 (Cont'd)

On 20 May, "B" Battery displaced to a new firing position at BR 616623. On 24 May, "D" Battery and a battalion command group moved from base camp to BR 613606 to join "B" Battery on operation Crazy Horse. Concurrently "B" Battery displaced to the same location. "D" Battery and the battalion command group returned to base camp from the operation on 3 June, "B" Battery followed on 5 June. "B" and "D" Batteries fired a total of 1137 missions (1060 H&I, 34 FFE, 1 prep, 22 WA, 17 TOT, 2 def cone and 2 registrations) with an ammunition expenditure of 5,633 HE rounds (5562 PD fuzes and 71 CVT). "B" Battery moved to position at ZA 112674 in support of Hooker 1 on 10 June and remained until 23 June. In support of Hooker 1 "B" Battery fired 154 missions (3 prep, 2 reg, 146 H&I and 3 WA) and expended 607 rounds (PD fuzes). "C" Battery moved to position BR 237528 on 4 June in support of operation Banning. On 23 June, "C" Battery was relieved in place by "E" Battery, the newly formed 4 gun 155mm Howitzer battery who began its first operation outside base camp. The battery was moved overland. On 3 July, "D" Battery departed base camp for Steel Horse VI in firing position BR 436399, returning on 5 July. The battery fired 14 missions (1 reg, 5 TOT, 7 WA and 1 FFE) with a total expenditure of 58 rounds HE (54 PD and 4 CVT). On 5 July, "C" Battery moved to Pleiku Province to support operation Henry Clay, and continue this support at the close of the reporting period. On 6 July, "B" Battery replaced "E" Battery in position BR 236527 in the support of Operation Benning and remains in that role at the end of the reporting period. "E" Battery fired 605 missions (587 H&I, 7 WA, 4 reg, 2 direct fire, 1 FFE and 4 svc practice) with a total expenditure of 1062 rounds (1060 PD and 2 CP). On 16 July, "E" Battery moved to position BR 522462 in support of Operation Benning and returned to base camp that afternoon. A total of 2 missions were fired (1 FFE and 1 prep) with an expenditure of 167 rounds HE and 1 round WP. At the close of the reporting period, "E" and "D" Batteries remain in base camp in a perimeter defense role. The Battalion underwent USARV Annual General Inspection on 26-27 July.

2. During the quarterly reporting period, a total of 161 firing battery days were spent out of base camp.

3. During the reporting period the battalion fired a total of 2024 missions (10 prep, 22 TOT, 84 WA, 3 reaction, 2 salute, 1 calibration, 4 svc practice, 2 direct fire, 19 reg, 1877 H&I) with a total expenditure of 8345 HE and 1 WP (8103 PD, 166 Delay, 2 CP, 75 CVT) rounds. Since firing its first mission on 21 Nov 65 the battalion has fired 12,221 missions and expended 35,490 rounds of HE and 166 WP. Fuse utilization has been 32,830 PD, 1878 CVT, 508 MTSQ, 438 Delay and 2 CP.

4. During the period of this report the units were encouraged to take advantage of their time in the field to conduct field type training.

STAYMENT 62 DECLASSIFIED

This document is subject to special export controls and each transmittal to foreign nationals or other nations may be made only with prior approval of the Office of the Chief of Staff.
SUBJECT: Operational Report-Lessons Learned For Quarterly Period ending 31 July 1966. RCS CSFOR-65 (Cont'd)

As an example: Approximately 180 hours were spent on field fortifications, 137 hours on field sanitation, 90 hours on personal hygiene, and 80 hours of service practice. The "Steel Horse" operations mentioned in Section 1, paragraph 1, are a training vehicle devised by this battalion to further train the batteries in artillery fundamentals. They consist of occupation of position, firing observed and unobserved missions, security, fire direction procedures, communications, and road marches. When possible, these operations are conducted in conjunction with infantry unit operations. They have proved to be a very successful and worthwhile project. Additional unit training progress is shown in inclosure 2.

5. "E" Battery, the provisional airmobile 155mm howitzer battery, was initially formed to provide additional base camp security. Since activation this battery has been engaged in extensive airmobile training and is now tactically ready. As the unit was formed in-country no prescribed load lists (PLL), maintenance spares, or other normal resupply items were on hand. While the unit has not been tactically employed, it is felt when it is this could create a severe logistic problem. As the battery was formed from personnel within the battalion, with no increase in TO&E authorization, a personnel shortage has been created. As an example: The Battalion Liaison Officer TO&E position is used for the battery commander; the battalion survey section is cut from three survey parties to one. This arrangement has created personnel and administrative problems for the battalion.

6. The acquisition of parts for deadlined equipment has proven to be a distinct problem area. With our large vehicles, 8" How SP (M110), and 175mm Gun SP (M107), vehicles have been deadlined for from 2 to 10 weeks if the necessary parts were not immediately available in the An Khe Support Area or the Qui Nhon Logistics Support Area. Due to the condition of the Authorized Stockage List (ASL) for our self propelled artillery pieces in the Qui Nhon Support Area, the great majority of our requisitions must be passed on to other support areas. In addition to the regular A or B priority requisition a Red Ball is always submitted for deadlined weapon vehicles.

The Red Ball Express system has failed to reduce our deadline time to a reasonable length. The problem lies in that many requisitions never reach the Red Ball Express Office in Saigon, and those that do require two (2) to three (3) weeks. Additionally, since the Red Ball Express system has begun some 200 of our requisitions have arrived in country, and the Express Office has notified the unit of their arrival, yet they have not been received by the unit. Material Readiness Expediters have failed to locate their parts. Consequently, this unit is required to rerequisition, and weeks have been lost.
SUBJECT: Operational Report-Lesson's Learned for Quarterly Period ending 31 July 1966, RCS CSFOR-65 (Cont'd)

SECTION II: Commanders Observations and Recommendations

PART I: Observations

1. Item: Pioneer Engineer Work.

Discussion: With the advent of the rainy season, it can be expected that considerable difficulty will be encountered with washed out bypasses, unpaved roads that will become very difficult to traverse and other difficulties caused by the heavy rains in the soft alluvial soil in the area. While the engineers will repair major damage as quickly as possible, artillery units cannot be held up waiting for engineers when operational requirements call for immediate emplacement and fire. Artillery units must expect to do considerable engineer work on their own to get the guns through.

Observation: All Artillery units should hold classes on basic pioneer engineer work to allow repair of culverts, bypasses, and other road works so that the roads can be made passable without engineer help.

2. Item: Provisional 155mm Howitzer Battery.

Discussion: In order to perform extensive maintenance on the 8 inch SP mounts, "C" Battery was relieved in place in support of Operation Benning by the newly constituted Battery "E", (4 gun 155mm Howitzer). The battalion used Service Battery vehicles to move the battery overland. "E" Battery returned to Base Camp to resume defensive role of base camp. This operation fully illustrates the value of the newly formed battery for use other than the defense of base camp.

Observation: As yet a General Order has not been published authorizing the formation of Battery "E" as a provisional 155mm Howitzer battery in the 3rd Battalion, 16th Artillery. Until this is accomplished, the battery is unable to requisition needed items of equipment not available from battalion or 1st Cavalry Division resources.

3. Item: 3200 psi dry nitrogen.

Discussion: The 8" How SP (M110) and 175mm Gun SP (M107) require high pressure nitrogen (dry) to charge the equilibrators after a gun tube change. During Operation Crazy Horse the 175mm gun averaged 10 days between tube changes. This unit has experienced difficulties in procuring the nitrogen so as to enable immediate tube replacement.

Observation: There is no known reliable source of 3200 psi dry nitrogen. In one instance a shipment from Okinawa to the Qui Nhon Support Area had only 3 out of 100 bottles with suitable reservoir on hand, and no reliable source of resupply, greatly reduces the effectiveness of the 175 mm gun in an operation.
SUBJECT: Operational Report-Lesson's Learned for Quarterly Period ending 31 July 1966. RCS CSFOR-65 (Cont'd)

PART II: Recommendations:

1. None

FOR THE COMMANDER:

2 Incl

2. Training Progress Report

/s/ WILLIAM H. SYLVIA, JR.
/t/ CPT, Artillery Adjutant

DISTRIBUTION:

2 - CG, I Field Forces Vietnam, APO 96240, ATTN: AVFA-GC-TNG
1 - CINCUSARPAC, ATTN: GPOP-MH, APO 96558
3 - CG, USARV, ATTN: AVC-HIST, APO 96307
10 - CO, 1st Air Cav Div Arty, ATTN: S-3, APO 96490

Certified True Copy

HERBERT H. RAY
Lieutenant Colonel, GS
ACSFOR, Readiness Division
SUBJECT: Operational Report - Lessons Learned for Quarterly Period ending 31 July 1966, RCS CSFOR-65

HEADQUARTERS, 1ST AIR CAVALRY DIVISION ARTILLERY, APO SAN FRANCISCO 96490, 21 October 1966

TO: AC of S, ATTN: Force Development, Department of the Army, Washington, D.C., 20310

Forwarded.

FOR THE COMMANDER:

James F. Culp
LTC, Artillery
Adjutant
### Statistical Summary

**Artillery Ammunition Expenditure**

<table>
<thead>
<tr>
<th>UNIT</th>
<th>HE</th>
<th>WP</th>
<th>ILL</th>
<th>SK</th>
<th>REMAT</th>
<th>IREP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>B &amp; C BTRY</td>
<td>4397</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4397</td>
</tr>
<tr>
<td>D BTRY</td>
<td>3604</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3604</td>
</tr>
<tr>
<td>E BTRY</td>
<td>2384</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2385</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8345</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8346</td>
</tr>
</tbody>
</table>

**Fuse Utilization by Type**

<table>
<thead>
<tr>
<th>UNIT</th>
<th>ED</th>
<th>DELAY</th>
<th>FIRE</th>
<th>CY</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>B &amp; C BTRY</td>
<td>4151</td>
<td>166</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D BTRY</td>
<td>1569</td>
<td></td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E BTRY</td>
<td>2385</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>8103</td>
<td>166</td>
<td>75</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Missiles by Type**

<table>
<thead>
<tr>
<th>UNIT</th>
<th>PREPARATIONS</th>
<th>DOTS</th>
<th>LIVE</th>
<th>AERIAL</th>
<th>FUSES</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>B &amp; C BTRY</td>
<td>9</td>
<td>8</td>
<td>54</td>
<td>2</td>
<td>911</td>
<td>981</td>
<td></td>
</tr>
<tr>
<td>D BTRY</td>
<td>1</td>
<td>9</td>
<td>17</td>
<td></td>
<td>397</td>
<td>424</td>
<td></td>
</tr>
<tr>
<td>E BTRY</td>
<td>1</td>
<td>5</td>
<td>13</td>
<td>2</td>
<td>598</td>
<td>619</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>22</td>
<td>84</td>
<td>2</td>
<td>1906</td>
<td>2024</td>
<td></td>
</tr>
</tbody>
</table>

*Note:*
## Training Progress Report

**As of 31 July 1966**

<table>
<thead>
<tr>
<th>UNIT</th>
<th>Prewar Proc.</th>
<th>Quick Fire</th>
<th>Reactor Cause</th>
<th>Rule of R.</th>
<th>Snake Rifle</th>
<th>Cadet Ladder</th>
<th>Patrol Training</th>
<th>First Aid</th>
<th>Gas Masking</th>
<th>Firearm</th>
<th>First Aid</th>
<th>Armored</th>
<th>Field Craft</th>
<th>Marksmanship</th>
<th>Field Artillery</th>
<th>Field Artillery</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>HQ BTRY</td>
<td>90</td>
<td>49.5%</td>
<td>99%</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
<td>49.5%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B BTRY</td>
<td>82</td>
<td>96.3%</td>
<td>98.4%</td>
<td>100%</td>
<td>16.7</td>
<td>16.7</td>
<td>96.3%</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
<td>100%</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C BTRY</td>
<td>87</td>
<td>33%</td>
<td>99%</td>
<td>100%</td>
<td>33%</td>
<td>N/A</td>
<td>65%</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D BTRY</td>
<td>103</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>N/A</td>
<td>0%</td>
<td>100%</td>
<td>70%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E BTRY</td>
<td>58</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
<td>100%</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC BTRY</td>
<td>49</td>
<td>92%</td>
<td>92%</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
<td>92%</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN TOTAL</td>
<td>469</td>
<td>75%</td>
<td>96.5%</td>
<td>100%</td>
<td>16.5%</td>
<td>16.5</td>
<td>83.5%</td>
<td>94.4%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Incl. # 2**