UNCLASSIFIED

AD NUMBER

AD386080

CLASSIFICATION CHANGES

TO: UNCLASSIFIED
FROM: CONFIDENTIAL

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; 09 MAY 1967. Other requests shall be referred to Army Office of the Assistant Chief of Staff for Force Development, Washington, DC 20310.

AUTHORITY

12 OCT 1979, DoDD 5200.10 pg-4; AGO D/A ltr 29 Apr 1980

THIS PAGE IS UNCLASSIFIED
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.
SECURITY
MARKING

The classified or limited status of this report applies to each page, unless otherwise marked. Separate page printouts MUST be marked accordingly.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18, U.S.C., SECTIONS 793 AND 794. THE TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.
IN REPLY REFER TO
AGAM-P (M) (2 Oct 67) FOR OT RD 670269 12 October 1967

SUBJECT: Operational Report - Lessons Learned, Headquarters, 1st Battalion (AW) (SP) 44th Artillery

TO: SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation by USACDC in accordance with paragraph 6f, AR 1-19 and by USCONARC in accordance with paragraph 6c and d, AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure appropriate benefits in the future from Lessons Learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

C. A. STANFIELD
Colonel, AGC
Acting The Adjutant General

1 Incl

DISTRIBUTION:
Commanding Generals
US Continental Army Command
US Army Combat Developments Command
Commandants
US Army Command and General Staff College
US Army War College
US Army Air Defense School
US Army Armor School
US Army Artillery and Missile School
US Army Aviation School
US Army Chemical School
US Army Civil Affairs School
US Army Engineer School
US Army Infantry School
US Army Intelligence School

CONFIDENTIAL

REGRADED UNCLASSIFIED WHEN SEPARATED FROM CLASSIFIED INCLOSURES

FOR OT RD FILE 670269

12550
CONFIDENTIAL

DISTRIBUTION (Cont'd)
US Army Medical Field Service School
US Army Military Police School
US Army Ordnance School
US Army Quartermaster School
US Army Security Agency School
US Army Signal School
US Army Special Warfare School
US Army Transportation School

Copies furnished:
Office, Chief of Staff, US Army
Deputy Chiefs of Staff
Chief of Research and Development
Assistant Chiefs of Staff
Chief of Engineers
The Surgeon General
The Provost Marshal General
Commanding Generals
101st Airborne Division (-)
11th Infantry Brigade (Sep)
Commanding Officers
198th Infantry Brigade
Hq, 1st Battalion (AW) (SP) 44th Artillery
Army Attache, London (Thru ACSI)
Director, Weapons System Evaluation Group
OSD (SA), Southeast Asia Forces (Dr. Bailey)
Hq, US Army Weapons Command
Joint Action Control Office
National Aeronautics & Space Administration
CONFIDENTIAL

DEPARTMENT OF THE ARMY
HEADQUARTERS, 1ST BATTALION (AW)(SP) 44TH ARTILLERY
APO SAN FRANCISCO 96269

AVFA-AT-1/44-C

9 May 1967

SUBJECT: Operational Report—Lessons Learned (P.38 OSFOR-65) for
Quarterly Period Ending 30 April 1967

TO: See Distribution

SECTION I (U) SIGNIFICANT ORGANIZATION OR UNIT ACTIVITIES

1. (C) General:

   a. The organization structure of this battalion is as follows:

      **ASSIGNED**

      HQ & HQ Battery, 1st Battalion (AW)(SP) 44th Artillery
      Battery A, 1st Battalion (AW)(SP) 44th Artillery
      Battery B, 1st Battalion (AW)(SP) 44th Artillery
      Battery C, 1st Battalion (AW)(SP) 44th Artillery
      Battery D, 1st Battalion (AW)(SP) 44th Artillery

      **ATTACHED**

      Battery G (Machinegun Caliber .50), 65th Artillery
      Battery G (Searchlight), 29th Artillery (Administration and
      Courts-Martial Jurisdiction)

   b. The battalion remained under the operational control of the
      3d Marine Division during the reporting period and the stationing of
      units as reported in previous ORs remains unchanged. Battery G (SMT),
      29th Artillery was attached to III MAF for OCON and attached to this
      battalion for Administration and Courts-Martial Jurisdiction by General
      Battery G (SMT), 29th Artillery headquarters is located at Da Nang; however,
      its searchlight sections are supporting USMC units throughout the lst
      Corps Tactical Zone.

   c. The 3d Marine Division LOI 1-67 changed the primary mission
      of this battalion from that of air defense to ground support. The air
      defense mission has been relegated to a secondary role to be carried out
      as conditions permit.
A

CONFIDENTIAL

AVFA-AT-1/44-C

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for
Quarterly Period Ending 30 April 1967

2. (C) Intelligence:

The battalion has initiated an intelligence collection effort
and has participated in 3d Marine Division intelligence programs.
Battalion personnel conduct daily daylight patrols outside Sector II of
the Dong Ha Combat Base. These daily patrols have resulted in locating
freshly dug fighting holes, aiming stakes and sniper locations. Intelli-
gence materials such as documents and equipment as well as civilian
detainees have been forwarded to higher headquarters for evaluation.
Daily intelligence briefings conducted by the 3d Marine Division (FWD)
were attended by the S2 or his representative. A daily intelligence
briefing was conducted for the battalion staff and batteries located at
the Dong Ha Combat Base by the S2 or his representative. Battery D
located at Thu Bai obtained its intelligence from daily intelligence summaries and briefings of the 4th Marine Regiment. Battery C at Camp J.J.
Carroll also obtains its intelligence through daily intelligence summaries and attendance at briefings given by the 3d Marine Regiment. Intelli-
gence obtained by the battalion headquarters at Dong Ha applicable to
Batteries C and D was forwarded by the battalion S2 Section electronically
as soon as possible during the reporting period.

3. (C) Operations and Training activities:

a. Plans:

Continue direct support of USMC efforts in the 3d Marine
Division tactical area of responsibility.

b. Operations:

(1) The battalion and elements of Battery G, 65th Artillery
have participated in the following operations during the reporting period:

Operation Prairie II - 1 Feb 67 to 18 Mar 67 (Batteries A, B and C)
Operation Prairie III - 19 Mar 67 to 18 Apr 67 (Batteries A, B and C)
Operation Prairie IV - 19 Apr 67 to present (Batteries A, B and C)
Chinook I - 1 Feb 67 to 17 Feb 67 (Battery D)
Chinook II - 18 Feb 67 to 2 Apr 67 (Battery D)
Big Horn - 2 Apr 67 to 18 Apr 67 (Battery D)
Shawnee - 18 Apr 67 to present (Battery D)

(2) During the reporting period perimeter defense of Dong Ha
Combat Base was provided by M42 weapons of Batteries A and B; perimeter
defense of Camp J.J. Carroll was provided by Battery C, and Battery D
provided perimeter defense for Thu Bai. Elements of Battery G, 65th
Artillery were utilized primarily to escort convoys throughout the 1st
Corps Tactical Zone in support of USMC operations.
(3) This battalion was engaged in tactical operations daily throughout the reporting period. Inclosure 1 lists missions performed by the battalion and Battery G, 65th Artillery during the reporting period. At the end of the reporting period the battalion was deployed in direct support of USMC units as follows:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>LOCATION</th>
<th>UNIT SUPPORTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(-)/1/44</td>
<td>Dong Ha</td>
<td>1st Battalion, 44th Artillery</td>
</tr>
<tr>
<td>A/1/44</td>
<td>Gio Linh</td>
<td>12th Marine Regiment</td>
</tr>
<tr>
<td>A/1/44</td>
<td>Vic Quang Tri</td>
<td>1st Battalion, 9th Marine Regiment</td>
</tr>
<tr>
<td>A/1/44</td>
<td>Vic Khe Sanh</td>
<td>Senior Officer Present</td>
</tr>
<tr>
<td>B(-)/1/44</td>
<td>Dong Ha</td>
<td>9th Marine Regiment</td>
</tr>
<tr>
<td>B/1/44</td>
<td>Vic Con Thien</td>
<td>1st Battalion, 4th Marine Regiment</td>
</tr>
<tr>
<td>C(-)/1/44</td>
<td>Camp J.J. Carroll</td>
<td>3d Marine Regiment</td>
</tr>
<tr>
<td>C/1/44</td>
<td>Rock Pile - Khe Gio Bridge</td>
<td>3d Battalion, 3d Marine Regiment</td>
</tr>
<tr>
<td>C/1/44</td>
<td>Ca Lu</td>
<td>3d Battalion, 3d Marine Regiment</td>
</tr>
<tr>
<td>D(-)/1/44</td>
<td>Thu Bai</td>
<td>4th Marine Regiment</td>
</tr>
<tr>
<td>D/1/44</td>
<td>Ol Shawnee</td>
<td>3d Battalion, 26th Marine Regiment</td>
</tr>
<tr>
<td>G(-)/65</td>
<td>Dong Ha</td>
<td>9th Marine Regiment</td>
</tr>
<tr>
<td>G/65</td>
<td>Gio Linh</td>
<td>12th Marine Regiment</td>
</tr>
<tr>
<td>G/65</td>
<td>Vic Quang Tri</td>
<td>1st Battalion, 9th Marine Regiment</td>
</tr>
</tbody>
</table>
CONFIDENTIAL

AVFA-AT-1/44-C
SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarter Period Ending 30 April 1967

<table>
<thead>
<tr>
<th>UNIT</th>
<th>LOCATION</th>
<th>UNIT SUPPORTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/65</td>
<td>Vic Khe Sanh</td>
<td>Senior Officer Present 3d Marine Division</td>
</tr>
<tr>
<td>0/65</td>
<td>Camp J.J. Carroll</td>
<td>3d Marine Regiment</td>
</tr>
<tr>
<td>0/65</td>
<td>Phu Bai</td>
<td>4th Marine Regiment</td>
</tr>
<tr>
<td>0/65</td>
<td>Q' Shawnee</td>
<td>3d Battalion, 26th Marine Regiment</td>
</tr>
<tr>
<td>0/29</td>
<td>Da Nang</td>
<td>1st Marine Division</td>
</tr>
<tr>
<td>0/29</td>
<td>Chu Lai</td>
<td>1st Marine Division</td>
</tr>
<tr>
<td>0/29</td>
<td>Phu Bai</td>
<td>4th Marine Regiment</td>
</tr>
<tr>
<td>0/29</td>
<td>Q' Shawnee</td>
<td>3d Battalion, 26th Marine Regiment</td>
</tr>
<tr>
<td>0/29</td>
<td>Dong Ha</td>
<td>9th Marine Regiment</td>
</tr>
<tr>
<td>0/29</td>
<td>Camp J.J. Carroll</td>
<td>3d Marine Regiment</td>
</tr>
<tr>
<td>0/29</td>
<td>Vic Khe Sanh</td>
<td>Senior Officer Present 3d Marine Division</td>
</tr>
</tbody>
</table>

b. Training:

Each organic and attached battery is required to conduct a minimum of two hours a week training on subjects associated with the battalion's primary mission. Representative subjects include patrolling, ambush and counter-ambush tactics, map reading, mines and booby traps.

d. Chemicals: NONE.

e. PSYWAR:

(1) The battalion has conducted a Rewards Program in
CONFIDENTIAL

AVFA-AT-1/44-C

SUBJECT: Operational Report-Lessons Learned (USCS CSFOR-65) for
Quarterly Period Ending 30 April 1967

accordance with 3d Marine Division Order 7230.1 dated 6 February 1967.
Leaflets and posters available through USMC channels, announcing the
program to the Vietnamese civilian populace, have been procured and
distributed. The battalion recently designed and published its own posters,
which were distributed and posted in Dong Ha and along Highway 1. The
amount of 5,00 VN$ is maintained by the S2 Section for use as rewards
payments. A battalion SOP and Table of Payments has been published and
distributed to squad level throughout the battalion.

(2) The 244th Civil Affairs Company sound truck has been
used during the MEDCAP visits in hamlets. The Divisional and Regimental
PSYWAR sections have coordinated efforts with the Battalion PSYWAR
Program. Distribution of psychological warfare literature such as "Tu Do"
has been accomplished.

f. Other:

The battalion prepared a fact sheet, subject: AW in the
Ground Role, to be used by supported units for better understanding of
the limitations and capabilities of automatic weapons (see Inclosure 2).

4. (C) Logistics:

The PLL and ASL for this battalion are being rapidly depleted
and very few repair parts are being received for the Gun, Self-Propelled,
Full Tracked, Twin 40mm, M42a1. Non-receipt of repair parts will soon
become a major problem and requires command action at higher echelons.

5. (C) Civil Affairs:

a. Dai An Hamlet (YD 270590);

The battalion assisted in the movement of the hamlet to its
new location indicated above. Movement of 42 families (212 people) was
completed on 30 March 1967.

b. MEDCAP:

(1) The Battalion Surgeon Medical Team has continued
treating approximately 125 persons per week at Dai An. Project continues.

(2) A monthly MEDCAP program was initiated by the Battalion
Surgeon and Medical Team for the Ha Thanh refugee hamlet (YD 221679) on
1 March 1967. 400 persons were treated during March and April.
9 May 1967

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 30 April 1967

a. At Ha Thanh hamlet, twenty-two (22) local civilians were hired to fill sandbags in cooperation with USID. Project has continued since 1 March 1967.

d. Battalion provided transportation for the distribution of commodities to Dai An, Ha Thanh and Lai An hamlets from 1 March 1967 to date. The battalion has transported over 170 tons of food, fertilizer, cement and tools. Project continues.

6. (U) Personnel: NONE.

7. (C) Artillery:

a. Ammunition expended during the periods:

   - 40mm: 119,500 rounds.
   - Caliber .50: 351,938 rounds.

b. Ammunition expended to date:

   - 40mm: 216,177 rounds.
   - Caliber .50: 709,128 rounds.

8. (C) Other:

   a. The first month's operation of the 3d Platoon, Battery G (SLT), 29th Artillery, OCPON to this battalion, revealed the following:

      (1) Employment:

       (a) Searchlights have been employed on the perimeters of the Dong Ha Combat Base (4 - SLTS), Camp J.J. Carroll (4 - SLTS), Thu Dai (2 - SLTS) and in Operation Big Horn (4 - SLTS). Since M42 and M55 perimeter firing positions are generally located to provide good observation and fields of fire, areas adjacent to these weapons afford excellent positions for individual searchlights. In addition, being emplaced adjacent to an AW position allows searchlight personnel the benefit of an established communication net and excellent security.

       (b) The infra-red capability of this equipment permits observation of activities without the subject's knowledge. Once identified as hostile, AW units can take the target under fire by using infra-red binoculars or may have the target illuminated with white light.

       (c) To survey large areas, searchlight must be emplaced on high ground. Two searchlights so positioned, using a visible beam, can illuminate several grid squares.
CONFIDENTIAL

SUBJECT: Operation Reports - Lessons Learned (CSG CSF 65) for Quarterly Period Ending 30 April 1967

(d) Employing a searchlight in conjunction with a AW unit and a AN/TPS-21 Radar can effectively deny the enemy his ability to infiltrate.

(e) To fully exploit the capabilities of the jeep mounted searchlight, it is necessary to move the light to several alternate positions each night. A fringe benefit gained by displacing the light nightly is that the unit avoids setting a pattern, thus reducing the probability of being attacked.

(f) The jeep mounted searchlight can be air lifted into areas not available to wheeled vehicles.

(2) Significant results obtained:

Significant results per se have not yet been attained; however, the very presence of the searchlights in a particular area contributes materially to the confidence level of the committed troops whether on the perimeter of a base camp or on an operation, especially since the troops realize that the infra-red surveillance capability of the searchlights essentially takes the night away from the VC.

(3) Problem areas:

(a) Adverse weather conditions reduce the effectiveness of the searchlight.

(b) Searchlight crews lack the organic means to provide adequate local security for their positions; however, this limitation is overcome by positioning the lights adjacent to AW positions.

(c) The great distances between Battery Headquarters at Da Nang and areas of deployment, plus the nonavailability of dependable transportation, result in excessive down time when equipment in the field fails.

b. Mobility is the keynote to successful searchlight operations and the potential of the searchlight is limited only by the imagination of the supported unit commander.

SECTION 2 (C) COMMANDER'S OBSERVATIONS AND RECOMMENDATIONS

Part I. Observations (Lessons-Learned)  

1. (U) Personnel: NONE.
2. (c) Operations:

a. Item: AW personnel in an infantry role.

Discussion: Due to the lack of sufficient infantry units in this area of operation personnel of this battalion are required to aggressively conduct infantry patrols and night ambushes.

Observation: Automatic weapons battalions must be thoroughly trained in infantry tactics prior to arrival in RVN.

b. Item: Signature of M55 mounted on 2½ ton truck.

Discussion: The M55 mounted on a 2½ ton truck is readily identifiable in Marine Corps convoys because of its pronounced silhouette and markings. As a result, the VC/NVA forces appear to be getting more selective when attacking convoys and, thru the use of command detonated mines, attempt to destroy the M55's rather than other vehicles in the convoy. An attempt is being made to eliminate the silhouette problem by employing deception devices such as dummy vehicular canvas tops and styrofoam box covers; however, the distinctive OD color and white stars of U.S. Army vehicles continue to facilitate identification.

Observation: M55's and the 2½ ton truck prime movers used to escort Marine vehicles should be painted and marked similarly to Marine vehicles being escorted.

c. Item: Difficulty in detecting AT mines.

Discussion: In a recent operation, an M42 detonated a non-metallic AT box mine after the road had been swept by an engineer mine team and an M48 Tank had run over the mine. The M42 was following in the tracks made by the M48 Tank.

Observation: Following in the tracks of another vehicle that is immediately in front of a vehicle is no guarantee that the road is clear of mines.

d. Item: Observing the infra-red light of the AN/MSS-3 Searchlight.

Discussion: During hours of darkness the infra-red driving periscope (M19) on the M42 can be easily used either mounted or dismounted and powered using an extension cord to observe IR light cast by the AN/MSS-3 Searchlight scanning the terrain near an M42 position.
Observation: M42 crews should utilize the M19 Periscope in conjunction with the infra-red light of the AN/MSS-3 Searchlight to obtain better observation coverage of their perimeter areas.

e. Item: AN/MSS-3 Searchlight as a navigational aid.

Discussion: If listening posts or close-in patrols are equipped with the netscope IR viewing device, the searchlight can be used as a navigational aid. Although the IR beam can only be seen for 800 meters from the light, a person standing 800 meters away from the light, in line with or near the beam, can see another 800 meters out. Experiments have placed the observer up to 1000 meters away from the light. Light can be requested by giving coordinates and the observer-target (OT) azimuth as in the field artillery fire request. Also a general scan of the area can be requested and the light will stop on command from the observer (see inclosure 3).

Observation: The AN/MSS-3 is an effective navigational aid particularly for listening posts and close-in patrols.

f. Item: Utilization of AN/MSS-3 Searchlight during mortar/rocket attacks.

Discussion: During a recent mortar/rocket attack one searchlight used its azimuth indicator to record and report azimuths to suspected mortar/rocket positions. By utilizing organic radio communication, the crew directed artillery fire missions and air strikes against suspected enemy locations.

Observation: Searchlight crews can be utilized to obtain accurate azimuths to suspected enemy locations and may direct artillery fire missions or air strikes.

g. Item: Location of friendly and enemy positions by resection using the azimuth indicator of the M42.

Discussion: The location of suspected enemy locations can be determined by having two (2) M42's at different locations determine azimuths to a particular point and then obtain the coordinates of that location by resection.

Observation: Accurate coordinate locations can be obtained quickly by resecting to a point by obtaining azimuths using the azimuth indicators on the M42's.
CONFIDENTIAL

AVFA-AT-1/44-C
SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for
Quarterly Period Ending 30 April 1967

9 May 1967

h. Item: AW MIX required to escort convoys over routes
through heavily vegetated areas.

Discussion: M42's escorting a convoy over a route that
had dense vegetation (high elephant grass) on both sides of the road
could not fire at actual and suspected enemy positions due to the danger
of rounds detonating immediately upon striking the vegetation close to
the weapons.

Observation: M42 (super-quick fuze - HE projectile) and
M55 (ball projectile) weapons should be mixed when escorting a convoy
traveling routes known to have both open-rolling and heavily vegetated
terrain so that the enemy positions can be taken immediately under fire
by automatic weapons no matter what the environment is.

i. Item: Mechanics (track vehicle and artillery) accompanying
M42's supporting field operations.

Discussion: Four (4) M42's or more committed to support
field operations in excess of five (5) days create maintenance problems
when support is attempted from base camp areas.

Observation: Mechanics (track vehicle and artillery)
should accompany committed M42's supporting field operations in excess
of five (5) days in order to alleviate attendant maintenance problems in
the field rather than requiring the equipment to be evacuated back to
the base camp for repairs.

j. Item: Defense of isolated positions.

Discussion: A description of an attack on an isolated
field artillery battery and resultant lessons learned and conclusions
as reported by USMC personnel are contained in inclosure 4.

Observation: The contents of the inclosed USMC report
should be disseminated to U.S. Army units stationed in RVN.

3. (U) Training and Organization: NONE.

4. (U) Intelligence: NONE.

5. (U) Logistics:

a. Item: TA 50 equipment.

Discussion: Incoming personnel are reporting without
TA 50 equipment and this battalion is unable to supply these personnel
with items such as flak vests and helmets.
CONFIDENTIAL

AVFA-AT-1/44-C

SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for
Quarterly Period Ending 30 April 1967

Observation: Necessary TA 50 equipment such as flak vests
and helmets should be issued all personnel prior to departing the replace-
ment center for a forward combat area.

b. Item: TO&E Tentage.

Discussion: TO&E tentage is not adequate to house authorized
personnel and their individual gear once the personnel are settled in a
permanent base camp. The situation is further aggravated by incoming
and departing personnel in a transient status.

Observation: Additional tentage is required to assure
adequate space is available for authorized and transient personnel.

c. Item: Inadequacy of TO&E water trailer.

Discussion: One (1) TO&E water trailer per battery is
inadequate for units required to maintain a base camp and still support
elements in the field.

Observation: An additional trailer per battery is required
to satisfy all drinking, washing and cooking requirements.

6. (U) Other: NONE.

Part II, Recommendations:

1. (U) Personnel: NONE.

2. (C) Operations:

a. Recommend that all automatic weapons personnel be thoroughly
trained in infantry tactics prior to arrival in RVN.

b. Recommend 2½ ton truck prime movers for the M55's be painted
and marked similarly to the USMC vehicles they escort daily.

c. Recommend secondary capabilities of M42's and the AN/M4C-3
Searchlights associated with their on-carriage azimuth indicators and
infra-red equipment be publicized, particularly in areas where equipment
is deployed.

d. Recommend appropriate FM and TM publications incorporate
problems that can be anticipated when AV systems are given a primary
mission of ground support and are equipped only with a super-quick
fuzed action/self-destruct round. Further recommend that a cannister
round be developed for the M42 and that the development of a delay fuzed HE round without self-destruct should be initiated immediately for the follow-on Vulcan AW system.

e. Recommend contents of inclosed USMC report be disseminated to U.S. Army units stationed in RVN and that all services exchange RVN ORLL reports regularly, particularly if such is not the case now.

3. **(U) Training and Organization:** NONE.

4. **(U) Intelligence:** NONE.

5. **(U) Logistics:**

   a. Recommend incoming personnel be issued necessary TA 50 equipment such as flak vests and helmets prior to departing the replacement center.

   b. Recommend tentage in excess of TO&E allowance be provided units prior to in-country arrival to insure adequate space is available for all authorized and transient personnel.

   c. Recommend all battery-size units be issued an additional water trailer prior to arrival in country.

4 Incl

1. Missions Performed
2. AW in Ground Support Role
3. The Searchlight as a Navigational Aid (sketch)
4. Defense of Isolated Positions

DISTRIBUTION:

2-CINCUSARPAC
3-CG, USARV
6-CG, IFFORCEV ARTY
Info Copy
2-CG, 3d MARDIV
1-CO, 3d Marines
1-CO, 4th Marines
1-CO, 9th Marines
1-CO, 12th Marines

CONFIDENTIAL
AVFA-AT-D (9 May 67)  
1st Ind  
SUBJECT: Operational Report of Lessons Learned for Quarterly Period  
Ending 30 April 1967, (RCS CSFOR-65)(1st Bn, 44th Arty) (U)  

HEADQUARTERS, I FIELD FORCE VIETNAM ARTILLERY, APO 96350, 24 May 1967  

TO: Commanding General, I Field Force Vietnam, APO: AVFA-GC-OT, APO 96350  

1. Forwarded.  

2. Concur with observations and recommendations contained in basic communication.  

3. Reference Section 2, Part II, para 2c: This information will be publicized in a future I FFORCEV Arty newsletter.  

4. Reference Section 2, Part II, para 2e: This information will be disseminated in a future I FFORCEV Arty newsletter.  

FOR THE COMMANDER:  

[Signature]  

4 Incl  

nc  

[Stamp: LTC, Arty  
Adjuvant]
SUBJECT: Operational Report of Lessons Learned for Quarterly Period Ending 30 April 1967 (U)

HEADQUARTERS, I FIELD FORCE VIETNAM, APO 96350

TO: Commanding General, United States Army Vietnam, APO 96307

1. (U) This headquarters has reviewed the contents of the 1st Battalion, 44th Artillery operational report for the quarterly period ending 30 April 1967, and the preceding indorsement with the following comments.

   2. (C) Reference Section II, Part II - Recommendations.

      a. Paragraph 2a - Operations: Concur. Training in infantry tactics is accomplished in basic combat training, advanced individual, and unit training. All personnel are required to complete eight weeks of basic training which includes infantry tactical training. Advanced individual training includes infantry tactical training for those personnel assigned infantry MOS's. Upon assignment to an organization, artillery personnel are required to engage in only those infantry tactics deemed appropriate by the commander.


      c. Paragraph 2c - Operations: Concur. I FFORCw Artillery has been notified to have sufficient copies of inclosure 2 provided to higher headquarters and major organizations in I and II Corps Tactical Zones.

      d. Paragraph 2d - Operations: Concur. I FFORCw Artillery has been instructed to have the organization submit specific recommendations through channels on DA form 1598 for changes desired in FM's and TM's; and request appropriate action for development of a delay fuze in accordance with USARV, letter, subject: Procedure for Expediting Non-Standard, Urgent Requirements for Equipment (ENSURE), dated 3 January 1966.

      e. Paragraph 2e - Operations: Concur. Operational reports of lessons learned are disseminated in accordance with USARV Regulation 1-19 dated 3 February 1967, and I FFORCw Regulation 1-3, dated 23 March 1967. However, significant lessons learned are disseminated to all US Army organizations and other services by USARV and MACV, respectively.

      f. Paragraph 5a - Logistics: Non-concur. The additional load on the individual soldier and a buildup of excess equipment in the organi...
SUBJECT: Operational Report of Lessons Learned for Quarterly Period Ending 30 April 1967 (U)

ization, unless returned to the replacement center by departees, appear to outweigh the advantages of the individual being equipped upon arrival at the unit. Units are currently authorized CTA 50-901 items in excess of normal allowances.

g. Paragraph 5b - Logistics: Concur. Excess tentage is contained in the WABTOC package authorized for units scheduled to deploy to RVN on the basis of 16 men per tent with an overage allowance of ten percent.

h. Paragraph 5c - Logistics: Concur. Appropriate action is being taken by USARV to obtain additional water trailers for combat units.
AVHGC-DST (9 May 67)
3d Ind
SUBJECT: Operational Report—Lessons Learned for the Period Ending
30 April 1967 (RCS CSFOR-65) (U)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO 96375 17 JUL 1967

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

1. This headquarters has reviewed the Operational Report—Lessons
Learned for the period ending 30 April 1967 from Headquarters, 1st Battalion
(AW)(SP), 44th Artillery as indorsed.

2. Pertinent comments follow:

   a. Reference item concerning non-receipt of repair parts, pages 4
      and 5: Concur. This problem should be reported on semi-monthly PLR sub-
      mitted by IFFV.

   b. Reference item concerning signature of M-55 mounted on 2½
      ton truck, paragraph 2b, page 8; paragraph 2b, 2d Indorsement, and para-
      graph 2b, page 11: Comments in 2d Indorsement are considered adequate.

   c. Reference item concerning TA 50 equipment, paragraph 5a,
      page 10, and paragraph 5a, page 12 and paragraph f, 2d Indorsement: Concur
      in 2d Indorsement comments.

   d. Reference item concerning TOE tentage, paragraph 5b, page
      11, paragraph 2g, 2d Indorsement and paragraph 5b, page 12: Concur in 2d
      Indorsement comments.

   e. Reference item concerning inadequacy of water trailer, para-
      graph 5c, page 11, paragraph 2h, 2d Indorsement and paragraph 5c, page 12:
      Concur. Units have been informed that USAVR will process trailers for
      temporary loan pending approval of MTOE. Assets for temporary loan are
      expected to be available in mid July through early August 1967.

   f. Reference item concerning M-42 weapons system, paragraph 2d,
      page 11 and paragraph 2d, 2d Indorsement: Concur. Chapter I, paragraph
      3(c), FM 44–2 states, in part, that the M-42 system may be employed in a
      ground role. However, it was never envisioned that its primary mission
      would be that of perimeter defense, convoy security, and suppressive
      fires. As a result certain system shortcomings as noted in the ORLL were
      uncovered. Recommend USAOCDC be informed of this problem.

FOR THE COMMANDER:

[Signature]

4 Inc
nc
SUBJECT: Operational Report for the Quarterly Period Ending 30 April 1967 from HQ, 1st Bn (AW)(SP), 44th Arty (RCS CSFOR-65) (U)

HQ, US ARMY, PACIFIC, APO San Francisco 96558    20 SEP 1967

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

This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

[Signature]

U. L. McULLIN
MAJ, AGC
Asst AG

4 Incl
nc
## MISSIONS PERFORMED

<table>
<thead>
<tr>
<th>DATE</th>
<th>UNIT</th>
<th>MISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Feb 67 to present</td>
<td>Three Squads C/1/44</td>
<td>Remained in direct support 3d Bn, 3d Marine Regt, vic Rockpile, XD 982548.</td>
</tr>
<tr>
<td>1-6 Feb 67</td>
<td>Two Sects A/1/44 Two Sects B/1/44</td>
<td>Direct support 3d Bn 3d Marine Regt. Sweep along coast South of Cua Viet River. One M42 slightly damaged by anti-tank mine 05133OH Feb 67, vic YD 455595, M42 able to proceed, no casualties.</td>
</tr>
<tr>
<td>1 Feb 67 to 2 Apr 67</td>
<td>Three Sects D/1/44 One Sect G/65</td>
<td>Remained direct support 3d Bn, 26th Marine Regt, Operation Chinook I and Chinook II.</td>
</tr>
<tr>
<td>201445H Feb 67</td>
<td>One Squad G/65</td>
<td>M55 as bridge security at Khe Gio bridge, YD 027562 received sniper fire from 500 meters north of bridge site. Returned Cal. .50 fire. No positive results from sweep at 1630 hrs.</td>
</tr>
<tr>
<td>26 Feb 67 to present</td>
<td>One Sect A/1/44 Two Squads G/65</td>
<td>Direct support 12th Marine Regt and provisional Arty at Gio Linh. Weapons on base perimeter and utilized in H &amp; I fire plan for defense of area.</td>
</tr>
<tr>
<td>28 Feb 67 to 6 Mar 67</td>
<td>Two Sects B/1/44</td>
<td>Direct support Marine provisional battalion and 1st Bn, 9th Marine Regt vic Can Lo. Fired destruction and direct support missions for assault.</td>
</tr>
<tr>
<td>4 Mar 67 to 6 Mar 67</td>
<td>One Sect A/1/44</td>
<td>Security for 4/1/40 Arty firing positions vic Can Lo.</td>
</tr>
<tr>
<td>070015H Mar 67 thru 070700H Mar 67</td>
<td>One Plt C/1/44 One Sect G/65</td>
<td>M42 and M55 weapons returned counter mortar fire during rocket/mortar attack at Camp J.J. Carroll. Damage to vehicles of units was light. Six WLs C/1/44 (Ref: 1/44 STREP 071800H Mar 67.)</td>
</tr>
<tr>
<td>13 Mar 67 to present</td>
<td>Two Squads G/65</td>
<td>Airlifted to Khe Sanh for direct support of Senior Officer Present 3d Marine Div. Utilised primarily as perimeter security for Khe Sanh airstrip.</td>
</tr>
</tbody>
</table>

Inclosure 1

CONFIDENTIAL
<table>
<thead>
<tr>
<th>DATE</th>
<th>UNIT</th>
<th>MISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Mar 67 to</td>
<td>One Sect B/1/44</td>
<td>Bridge security and defense of USMC 11th Engineer Bn construction detail vic Khe Sanh, XD 915404.</td>
</tr>
<tr>
<td>4 Apr 67</td>
<td>Two Squads G/65</td>
<td></td>
</tr>
<tr>
<td>202000H Mar 67 to One Sect A/1/44</td>
<td>Underwent mortar attack at positions in Gio Linh. Four WIA A/1/44. (Ref: 1/44 SITREP 211800H Mar 67.)</td>
<td></td>
</tr>
<tr>
<td>202330H Mar 67 Two Squads G/65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>210135H Mar 67 to Two Squads G/65</td>
<td>Security for ammo re-supply convoy from Dong Ha to Gio Linh. Convoy ambushed vic YD 216720. M55's returned fire at automatic weapons position and led convoy survivors out of the kill zone. Four WIA G/65. (Ref: 1/44 SITREP 211800H Mar 67.)</td>
<td></td>
</tr>
<tr>
<td>210400H Mar 67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Mar 67 to</td>
<td>Two Sects B/1/44</td>
<td>Direct support 3d Marine Regt for infantry sweep North of Can Lo. Fired destruction fire missions for assault and provided H &amp; I fires for the operation. One M42 hit nine 270725H Mar 67. Light damage. Three WIA B/1/44. (Ref: 1/44 SITREP 271800H Mar 67.)</td>
</tr>
<tr>
<td>28 Mar 67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 Mar 67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240730H Mar 67 One Squad G/65</td>
<td>M55 heavily damaged when road gave way near Engineer work party base camp vic XD 913:04. One non-battle casualty after mount fell 130 feet into deep ravine. (Ref: 1/44 SITREP 241800H Mar 67.)</td>
<td></td>
</tr>
<tr>
<td>30 Mar 67 to</td>
<td>One Sect B/1/44</td>
<td>Provide security Btry G, 2d Bn, 12th Marine Regt arty firing positions in support of Gio Linh.</td>
</tr>
<tr>
<td>6 Apr 67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Apr 67</td>
<td>One Sect G/65</td>
<td>Convoy security for 89 vehicle convoy from Dong Ha to Khe Sanh.</td>
</tr>
<tr>
<td>DATE</td>
<td>UNITS</td>
<td>ACTIVITY</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>030020H Apr 67</td>
<td>One Sect A/1/44</td>
<td>Received approximately 50 mortar rounds at Gio Linh positions. Squads returned counter battery fire. No casualties.</td>
</tr>
<tr>
<td>041831H Apr 67</td>
<td>One Sect A/1/44</td>
<td>Convoy security for Roughrider convoy from Dong Ha to Chinook operating area and return.</td>
</tr>
<tr>
<td>041853H Apr 67</td>
<td>Two Squads G/65</td>
<td>Underwent another mortar attack at Gio Linh. No casualties.</td>
</tr>
<tr>
<td>060230H Apr 67</td>
<td>One Sect D/1/44</td>
<td>Position mortared and attacked by VC ground forces vic YD 634295 south of An Lo bridge. One M42 returned 280 rounds 40mm ammo against attacking forces. One KIA, four WIA D/1/44. One M42 slightly damaged. Probable enemy KIA 80 to include 43 actual body count. (Ref: 1/44 SITREP 061800H Apr 67.)</td>
</tr>
<tr>
<td>095300H Apr 67</td>
<td>One Plt C/1/44</td>
<td>Fired counter mortar fire during mortar attack consisting of 47 rounds at NW edge Camp J.J. Carroll. Secondary explosions resulted at vic YD 071572. No casualties.</td>
</tr>
<tr>
<td>100830H Apr 67</td>
<td>Two Sects B/1/44</td>
<td>Convoy security for 1st Bn, 4th Marine Regt recon party from Dong Ha to Con Thien. M42's fired 440 rounds 40mm ammo and M55's fired 6500 rounds Cal. .50 during recon by fire vic Con Thien. AW fires destroyed M2 bunker and broke up attempted ambush 11 Apr 67. No casualties B/1/44, G/65.</td>
</tr>
<tr>
<td>111240H Apr 67</td>
<td>One Sect G/65</td>
<td>Convoy security for 9th Motor Transport Bn Roughrider convoy from Dong Ha to Big Horn operating area.</td>
</tr>
<tr>
<td>121420H Apr 67</td>
<td>Two Sects B/1/44</td>
<td>Direct support 1st Bn, 4th Marine Regt, to open and secure 200 meter wide strip from Gio Linh to Con Thien.</td>
</tr>
</tbody>
</table>

Inclosure 1
<table>
<thead>
<tr>
<th>DATE</th>
<th>UNIT</th>
<th>MISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Apr 67 to</td>
<td>Three Sects A/1/44</td>
<td>Direct support 1st Bn, 9th Marine Regt, search and destroy mission South of Quang Tri.</td>
</tr>
<tr>
<td>20 Apr 67</td>
<td>2 Squads G/65</td>
<td>Direct support 1st Bn, 4th Marine Regt on strip from Gio Linh to Con Thien received 12-16 rounds mortar fire. Returned 200 rounds 40mm ammo. Mortaring ceased. No damage to equipment or casualties B/1/44.</td>
</tr>
<tr>
<td>151717H Apr 67</td>
<td>Two Sects B/1/44</td>
<td>Direct support 1st Bn, 4th Marine Regt on strip from Gio Linh to Con Thien received two mortar attacks. Two WIA B/1/44 at 190005H Apr 67. No damage to equipment. (Ref: 1/44 SITREP 191800H Apr 67.)</td>
</tr>
<tr>
<td>190005H Apr 67</td>
<td>Two Sects B/1/44</td>
<td>Direct support 1st Bn, 4th Marine Regt on strip from Gio Linh to Con Thien received two mortar attacks. Two WIA B/1/44 at 190005H Apr 67. No damage to equipment. (Ref: 1/44 SITREP 191800H Apr 67.)</td>
</tr>
<tr>
<td>201000H Apr 67</td>
<td>One M42 A/1/44</td>
<td>Direct support 1st Bn, 9th Marine Regt on sweep with two other M42's; received one enemy rocket round (RPG). Round struck from rear, into M42 turret. Both automatic loaders heavily damaged. Four KIA A/1/44, Arty inoperative. (Ref: 1/44 SITREP 201800H Apr 67.)</td>
</tr>
<tr>
<td>20 Apr 67</td>
<td>Two Sects A/1/44</td>
<td>Released from direct support 1st Bn, 9th Marine Regt south of Quang Tri. One sect A/1/44 and two squads G/65 remain on mission.</td>
</tr>
<tr>
<td>20 Apr 67 to</td>
<td>Three Squads G/65</td>
<td>Convoy escort for Roughrider from Phu Bai to Dong Ha and return. One M55 struck mine on Highway 1, vic YD 298567. Vehicle repairable. Two WIA G/65. (Ref: 1/44 SITREP 201800H Apr 67.)</td>
</tr>
<tr>
<td>22 Apr 67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td>UNIT</td>
<td>MISSION</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>221400H Apr 67</td>
<td>One Squad C/65</td>
<td>One M55 returned 400 rounds Cal. .50 ammo after receiving several rounds of small arms fire via YD 625301. Small arms fire ceased, convoy proceeded to Phu Bai. Light damage to C/65, 24T truck body. No casualties.</td>
</tr>
<tr>
<td>25 Apr 67</td>
<td>One Squad C/1/44</td>
<td>Convoy escort for 11th Engineer Bn work party Southwest of Ca Lu. At 250030H Apr 67 convoy ambushed by enemy with satchel charges, mines and small arms fire via YD 940422. Two KIA, two WIA, C/1/44. (One serious WIA died 260330H Apr 67 at Phu Bai.) Minor damage to M42 hull. (Ref: 1/44 SITREP 251800H Apr 67.)</td>
</tr>
<tr>
<td>25 Apr 67</td>
<td>One Sect C/1/44</td>
<td>Dispatched from via Rockpile to ambush site described above. Assisted in evac of Marine vehicles to Ca Lu. Returned to original location 251830H Apr 67.</td>
</tr>
<tr>
<td>260715H Apr 67</td>
<td>One Sect B/1/44</td>
<td>Friendly 155mm round landed in bivouac area on Con Thien strip via YD 138709. One KIA, one WIA B/1/44. (Ref: 1/44 SITREP 261800H Apr 67.)</td>
</tr>
<tr>
<td>271115H Apr 67</td>
<td>Two Sects B/1/44</td>
<td>Received mortar rounds via YD 140713 on Con Thien strip. No damage to equipment, no casualties.</td>
</tr>
<tr>
<td>270001H Apr 67</td>
<td>One Sect A/1/44</td>
<td>Received mortar rounds via YD 215747, Gio Linh. Minor damage to equipment. No casualties.</td>
</tr>
<tr>
<td>270010H Apr 67</td>
<td>Two Squads G/65</td>
<td>Underwent mortar attack at Phu Bai. Returned fire - 340 rounds 40mm amo. Target coverage good. No casualties D/1/44 or C/65.</td>
</tr>
<tr>
<td>DATE</td>
<td>UNIT</td>
<td>ACTION</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>28183H Apr 67</td>
<td>One S/44</td>
<td>Received 800–900 rounds mixed mortar/arty fire at Gio Linh. No equipment damage. Five WIA G/65. (Ref: 1/44 SITREP 291800H Apr 67.)</td>
</tr>
<tr>
<td>28240H Apr 67</td>
<td>Two S/65</td>
<td>Roughrider convoy security from Dong Ha to Big Horn and Phu Bai and return.</td>
</tr>
<tr>
<td>26 Apr 67 to 29 Apr 67</td>
<td>Two S/65</td>
<td>Dong Ha Combat Base received approximately 50 rounds of mixed mortar/rocket rounds. No damage to 1/44 Arty elements. 1138 rounds 40mm counter battery fire was returned by M42's of A/1/44 and B/1/44. One 1/4 ton truck had windshield damaged, G/29 Arty (SLT). No casualties in 1/44, G/65 and G/29 Arty.</td>
</tr>
<tr>
<td>28023H Apr 67</td>
<td>HHB/1/44</td>
<td>Dispatched as daily convoy escort from Phu Bai in support of Operation Shawnee and Golden Fleece (Rice run).</td>
</tr>
<tr>
<td>A(-)/1/44, B(-)/1/44, G(-)/65, 3(-)/G/29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 Apr 67 continuing</td>
<td>One S/65</td>
<td>Received mortar rounds at Gio Linh location. No damage to equipment, no casualties A/1/44 or G/65.</td>
</tr>
<tr>
<td>301435H Apr 67 and 301635H Apr 67</td>
<td>Two S A/1/44, Two S G/65</td>
<td></td>
</tr>
</tbody>
</table>
1. **Basic Concepts:**

   a. The primary mission of the AW unit assigned a ground support role is to provide fire as directed by the supported unit commander.

   b. The AW unit's mobility and communications enable it to be redeployed rapidly in response to changing tactical situations.

   c. Use of direct fire is normal; however, indirect fire may be used as necessary.

   d. Mutual support between fire units and massing of fires should be sought.

2. **M42 (Duster - 40mm) Capabilities and Limitations:**

   a. M42 squads are capable of delivering a high volume of accurate direct fire against enemy personnel, lightly armored vehicles, bunkers, observation posts, crew served weapons and similar targets. Indirect fire also may be used, although it is less effective and is worthwhile only in a rather narrow range of circumstances.

   b. The M42 squad consists of five (5) personnel; a squad leader, a gunner, driver, and two (2) cannoneers.

   c. The M42 gun motor carriage has two (2) 40mm guns mounted coaxially on a full track lightly armored vehicle. An M60 Machinegun is mounted on the turret for additional fire power.

   d. The M42 uses high explosive tracer ammunition. A super-sensitive fuze in the high explosive projectile causes the shell to burst on contact (thick underbrush will detonate round). The maximum effective range is 3500 meters. If no contact is made, the tracer element will burn out between 3500 and 4800 meters. A relay ignition charge in the round will cause self-destruction of the projectile. The extreme deterrent range is the tracer burnout range of the automatic weapon projectile.

   e. The M42 may be fired either fully automatic or semi-automatic. Maximum rate of fire is 120 rounds per minute per barrel. The weapon should not be fired fully automatic for more than one minute at any one time in order to avoid barrel burnout.

   f. In direct fire the M42 crew uses speed ring sights to align the guns on the target and then adjusts the fire using tracer observation.

   g. The M42 has an azimuth indicator that, once properly oriented, can give accurate azimuths to suspected targets.

Inclosure 2
h. The M42 can be traversed 6400 miles.

i. The communication facilities available on the M42 include an AN/VRC-46 radio, an AN/GHR-5 radio receiver, a telephone on the rear of the track, and a field telephone that can be wired into the supported unit's communication system.

j. The weight of the M42, including crew, is 49,500 pounds. The maximum allowable speed is 45mph and the average cruising range when supporting dismounted infantry has been determined in this area of operation to be approximately 30 miles (gas tank capacity is 140 gallons).

k. Limitations of the M42 in the ground support role include its high silhouette, lack of overhead crew protection, and its high rate of fuel consumption (1/4 MFG).

3. M55 (Four .50 Caliber MG) Capabilities and Limitations:
   a. Same capabilities as in paragraph 2a.
   b. The M55 squad consists of four personnel, a squad leader, a gunner and two (2) assistant machine gunners.
   c. The M55 Machinogun Mount is normally carried on a 2½ ton truck equipped with special loading and mounting equipment; however, it can be removed from the truck and towed at slow speeds by a 1/4 or 3/4 ton truck. (The Machinogun Mount includes the M20 Machinogun Trailer. The M20 Trailer has two (2) bogey wheels that allow it to be man-handled for short distances.) The M55 Mount on the M20 Machinogun Trailer weighs approximately 3000 pounds; consequently, it can be heli-lifted into areas otherwise inaccessible to wheeled vehicles.
   d. The maximum effective range is 2000 meters and the rate of fire is 450 to 555 rounds per minute per barrel.
   e. The M55 can be traversed 6400 miles.
   f. Each M55 squad is equipped with an AN/PRC-25 radio and one field telephone.
   g. M55's participating in helicopter operations possess limited or no mobility once enplaced; consequently, the survival of the crew depends on sufficient infantry security being available where employed.

4. Representative AW Missions:
   a. Combat base perimeter security.
   b. Protection for point targets.
c. Search and destroy operations with infantry-tank teams.

d. Security for forward CPs, landing zones and field artillery positions.

e. Convoy escort.

5. Dong Ha Combat Base Perimeter Defense AW Weapons:

a. Sector commanders control and are responsible for all AW units within their sectors during the hours of darkness.

b. Initial fields of fire have been established by this organization for perimeter defense AW weapons in all sectors; however, sector commanders are responsible for ensuring that these fields of fire satisfy their requirements.

c. Emergency messages, such as a cease fire, can be transmitted by this organization to any M42 on the perimeter during the hours of darkness thru the use of AM radios.

d. Mutual areas of concern resulting from the positioning of AW units within a particular sector can be resolved by contacting the Battalion S3, at Duster 3.
THE SEARCHLIGHT
AS A NAVIGATIONAL AID

(NO EXPERIMENTS CONDUCTED WITH OBSERVER BEYOND 1000m FROM LIGHT)
DEFENSE OF ISOLATED POSITIONS

COMMENT: On the 18th of April, 1966, in the Danang TAOR, a 105mm Howitzer Battery, situated in a relatively isolated location, was attacked by a well trained and armed force of Viet Cong. The number of enemy has never been determined other than that it was in excess of 50 men.

The attack started at 0155 during the darkness of the moon, with a mortar barrage on the nearest unit. This unit was a 155mm Howitzer Battery and was located about 1000 meters away. There was no attack on this position and as it was later determined, the objective of the Viet Cong was to pin this unit down. Simultaneously, the Viet Cong attacked the 105mm battery from three directions. Two attacks came from the south utilizing bangalore torpedoes to breach the perimeter wire. Rocket launchers were used on the bunkers near the breaches. The attack from the north was accomplished in a silent manner, breaching the wire with cutters. The attention of the defenders was focused on the southern forces and the northern force was inside the wire before it was discovered.

The northern force threw satchel charges in the living quarters and sprayed the defenders with automatic weapons fire. Both forces made for the gun pits and succeeded in damaging two howitzers plus destroying a ready ammunition pit. It is estimated that as many as 40 Viet Cong were inside the perimeter.

The defenders were aided by continuous artillery illumination plus a flare ship. The 155mm battery fired several rounds of direct fire. The nearest infantry company had only a skeleton force in the company command post. The remainder of the company was deployed remotely from the scene of the attack. A small force of Viet Cong pinned down the company command post with automatic weapons fire.

Contact was maintained with the Viet Cong until daybreak (0555). Sixteen dead Viet Cong were left in the position. Numerous grenades and weapons were left behind. At approximately 0700, an engineer road grader struck a mine which was planted in the road between the battery position and the nearest infantry battalion command post. All wire lines of communication had been cut during the first few minutes of the attack. It was later discovered that these lines were cut in as many as three different locations.

LESSON LEARNED: The following are some of the lessons learned from the above experience:

Significant Points

- The entire area of the attack had been well reconnoitered.
- Specific locations of units, roads, bunkers and other defenses had been pinpointed by the Viet Cong.

Wire lines of communication were cut at terminal strips located near the perimeter.
An attack was made from the south with no attempt to be quiet. The main attack from the north was extremely quiet.

Once the Viet Cong were inside the wire, there was nothing to impede freedom of movement throughout the entire battery area. They could run directly to the gun pits, ammunition pits and other installations.

The best road available for use by a counterattacking force was mined.

Conclusions

Periodically and without setting a pattern, shift men on perimeter defenses from bunkers to fighting holes. This should be done after dark.

Perimeter fences should be high enough to prevent their being crossed by means of netting. Use a minimum of two fences around the position so that the enemy must use at least two demolition teams to effect a breach. Be sure to stake down concertina to prevent its being lifted.

When an attack is made in one direction and is detected, look to the rear for another attack. Do not focus the defenses in one direction.

Compartmentalize the interior of positions by a maze of three strand cattle fences. Use offset entrances to gun pits and other vital areas to slow down a person trying to enter. An attack similar to the one described was made on a combination artillery and tank position at Con Lo in September 1966. The Viet Cong were able to breach the perimeter wire, but were completely baffled by the compartmentation. As they bunched up, the tanks and defenders were able to inflict severe casualties.

Use dummy communications trunk lines into the position to confuse the Viet Cong. Place all terminal strips well within the positions.

After an attack, beware of mines on access roads to the position. Request a mine sweep of all roads and trails.

Ensure that sufficient back-up radios are in position to ensure reliable communications when the wire is cut.

Form a reaction force from personnel located in the same area. Rehearse this force frequently.

Remember that any change in the defenses will act as a deterrent to the Viet Cong as far as their mounting an attack. It must be presumed that the defenses have been scouted. A tank or Ontos in the position at random periods is an excellent means of varying the defenses.

Cover all perimeter wire by fire.

Make extensive use of Claymore mines, taking care to remove them at daybreak and varying their positions. Do not set a pattern. Never place the Claymores beyond the perimeter wire and where possible keep them under observation.