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**DEBRIEFING REPORT (RCS-CSFOR-74) (U)**

Country: Republic of Vietnam  
Debrief Report By: Brigadier General Richard A. Edwards  
Duty Assignment: Commanding General, I Field Force Vietnam Artillery  
Inclusive Dates: 11 August 1968 through 16 March 1969  
Date of Report: 16 March 1969

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SUMMARY OF OBSERVATIONS

1. (U) This summary covers the activities and events which have taken place in I Field Force Vietnam Artillery from August 1968 to March 1969.

2. (C) When I assumed command of I Field Force Vietnam Artillery, our mission was to provide artillery support to United States Forces, Free World Military Assistance Forces (FWMAF), Republic of Vietnam Armed Forces (RVNAF) and Special Forces Civilian Irregular Defense Group (CIDG) Camps in II Corps Tactical Zone (CTZ). Further, our mission included the support of Regional and Popular Force units within our capabilities. Subsequently, support for Revolutionary Development (RD) forces was added. I FFORCEN Artillery has been highly successful in accomplishing the above mission.

3. (C) The artillery deployment throughout the II CTZ has been oriented on the maneuver forces as established in the 1968 and the 1969 II CTZ Combined Campaign Plans.

4. (C) The two priority regions for offensive military operations during this period were the Western Highlands and the Coastal Plains. The Central Highlands received second priority. In the Western Highlands, operations were designed to disrupt the enemy’s ability to infiltrate from his Laotian/Cambodian sanctuaries to strike his objectives, and when necessary, to break contact and retreat to these sanctuaries. To counter enemy incursions across the border, a continuous screen was maintained along the Laotian/Cambodian border by CIDG forces. Regular forces were positioned in strategically located fire bases, controlling the key terrain from which they could conduct aggressive offensive operations to defeat the enemy before he withdrew to his sanctuary. Preemptive and spoiling operations prevented enemy attacks on hamlet population centers and deterred infiltration to the populated areas. In the coastal area, operations were designed to deny the enemy rice and manpower, two assets vitally needed by VC/NVA forces who were separated from their bases of supply in out-of-country sanctuaries. Operations at all levels have focused on the destruction of enemy forces and neutralizing or destroying base areas in which he caches supplies and prepares for attacks. This affords protection for the population and creates an environment in which political, economic and social institutions can thrive.

5. (C) During the period covered by this report, the I Field Force Vietnam Artillery organization consisted of two group headquarters, each with four attached battalions; three separate battalions; three separate batteries and ten detachments. The 52d Artillery Group supported operations primarily in the Western Highlands. The 41st Artillery Group

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supported operations in the Northern Coastal plain and the Central Highlands along Highway 19. The 6th Battalion, 32d Artillery, with one medium battery attached, supported operations in the Central Coastal region within the AOs of the Capital ROK Infantry Division, the 9th ROK Infantry Division, and the 47th ARVN Infantry Regiment. The 5th Battalion 27th Artillery, with one medium and one heavy battery attached, supported operations in the Task Force South AO which consists of the two southern coastal provinces of Binh Thuan and Ninh Thuan and the central highland provinces of Tuyen Duc and Lam Dong. The 4th Battalion (AW) (SP), 60th Artillery, with two attached batteries, and HHB, 8th Battalion, 26th Artillery (TAB), with ten attached counter-mortar radar detachments, rendered support throughout the II CTZ.

b. (C) Unlike the Artillery employed in other CTZs, it has been necessary to shift many of the firing positions of I Field Force Vietnam Artillery on a frequent basis. This was due primarily to the relatively limited amount of artillery available compared to the size of the II CTZ, which constitutes approximately 47% of the land mass of South Vietnam. We have had to redeploy many Field Force Artillery units on a daily basis to support the committed maneuver forces. Units could not remain static in fire bases and render the required fire support. When contact with the enemy was made and the situation developed to such an extent that a sizeable enemy force was known to be present, a rapid deployment of artillery to the contact zone became necessary. The basic firing unit as employed in II CTZ was the firing battery. In order to obtain the proper mix of calibers, it was necessary to split battalions continuously. While some firing units remained in relatively static positions in order to provide required coverage, most units were required to move several times each month. The mobility of the light and medium batteries was limited only by the mobility of the HU-1 and CH-54 CRANE helicopter respectively. Heavy artillery was restricted to surface movement.

c. In late August a Combined ARVN/US Fire Support Coordination Center (CFSCC) was established at LZ Betty near Phan Thiet in Binh Thuan Province. This CFSCC consists of an ARVN artillery liaison section, a US artillery liaison section, a naval gunfire liaison team, an Air Force LNO, a targeting section and an operations section. The CFSCC reduced by at least five minutes the time required for granting clearances for artillery, helicopter gunships, and TAC Air. The advantages of establishing a CFSCC are that the maneuver elements receive quick responses to calls for fire and the best available weapon is used to attack the target. Due to the initial success in Binh Thuan Province, similar organizations were established in Darlac and Kontum Provinces, and in the near future others will be established at Dak To, Tuy Hoa, LZ English and LZ Uplift.
These combined fire support coordination centers represent a major step forward in two primary areas. First, they improve the effectiveness of fire support in a given area and second, they afford additional training for ARVN personnel which will enable them to assume full responsibility for such operations upon departure of US forces.

8. (C) Assisting in the upgrading of Vietnamese armed forces is a responsibility of US forces in Vietnam. Two assistance programs with which this headquarters has been closely associated are the Associate Battery Program and the Regional and Popular Forces Assistance Program. The Associate Battery Program is designed to further the training of ARVN artillery units. It is accomplished by assigning each US artillery battery responsibility for furnishing additional training in FDC, firing battery, survey and ammunition to a specific ARVN artillery battery. The ARVN artillery is well led, well trained and highly proficient in most artillery techniques. It closely approaches the level of proficiency desired in all ARVN forces. The purpose of the RF/PF Assistance Program is to establish a capability for providing artillery fire support to RF/PF units as required. The program consists of two major elements. The first pertains to the training of RF/PF personnel in artillery FO procedures so that they may call for and adjust artillery fires. The second dealt with the establishment of the necessary procedures and communications means whereby RF/PF units could actually call for fires. This program has been highly successful and it is estimated that some 97% of all RF/PF units in II CTZ can now call for and receive supporting artillery fires.

9. (C) A program of ammunition expenditure classification and analysis was instituted in March 1968 and has proven to be a valuable tool both in improving the effectiveness of artillery fires and in carrying out a sound ammunition management program. In September 1968, an Ammunition Analysis Section of one officer and two computer operators was established within the S3 Section of this headquarters in order to permit a more comprehensive analysis of artillery expenditures in II CTZ. As a result of these measures, a significant shift in ammunition expenditures from interdiction targets to the more productive type targets such as confirmed and acquired has been experienced. In the period March 1968 through July 1968, 30% of the total rounds expended were fired on interdiction targets. In contrast, during the five month period from August 1968 through December 1968 only 11% of the total rounds were fired on interdiction targets. Essentially, the ammunition analysis and management program has resulted in more effective use of artillery munitions at a lower cost through increased emphasis on artillery target acquisition and analysis, fire support planning and coordination of fire support means.
10. (C) The utilization of Improved Conventional Munitions (ICM) during the initial period of this report was relatively low. The main reason for this low usage rate was that most commanders were not sufficiently informed regarding the capabilities and effects of the munition. In addition, existing rules of engagement were unduly restrictive. In order to increase the employment of this valuable munition, training exercises and demonstrations were conducted for maneuver force commanders and additional command emphasis was placed on this subject. As a result, the expenditure of ICM increased considerably during the latter part of the reporting period. In addition, action was initiated by this headquarters to cause modification of the rules of engagement to permit use of ICM against acquired targets and to authorize company/battery commanders to approve its employment. As ground commanders become more familiar with this munition and provided the rules of engagement are relaxed, I feel it will be utilized as frequently as high explosive.

11. (U) A large percentage of the captains and majors assigned during the period of my command were Air Defense Artillery trained. Prior to assigning these officers within this command, a careful review was made of all authorized positions to ascertain those requiring a minimum of field artillery experience and background. In addition, the artillery groups and battalions instituted on-the-job training for these officers. The total percentage of Air Defense officers assigned to positions requiring field artillery experience should remain below 25% in any grade to avoid diluting the experience level of the organization and thus degrading the combat efficiency of the unit.

12. (U) Artillery firing safety has been a matter of concern to commanders at every level. Under conditions existing in Vietnam, extreme care must be exercised by all parties concerned to avoid accidents. Most accidents can be traced to a violation of basic rules. The artillery double check system has to be enforced with an iron hand. Deviation from established rules and procedures cannot be tolerated. A complete and comprehensive SOP must be developed and followed rigidly. The forward observer training course and the fire direction officer training course established by this headquarters, have placed heavy emphasis on safety procedures and have helped provide a basic understanding of the safety problems which exist in Vietnam. In October 1968, an artillery firing safety office, headed by a field grade officer, was established in the S3 section FFORCEV Artillery. The primary purpose of this office has been to develop a coordinated and comprehensive firing safety program with the overall objective of reducing firing accidents. The efforts of this office, coupled with strong command attention, have contributed significantly to a reduction in the number of firing accidents experienced.
13. (U) A problem of major proportions has been the excessive deadline rate for heavy artillery; i.e., approximately 15%. At the suggestion of this headquarters, a program to reduce this high rate was developed and subsequently adopted throughout Vietnam. Under this program, each heavy artillery piece, together with its crew, is retrograded to the appropriate direct support maintenance unit once each quarter. Here the complete facilities of the maintenance unit are available and each crew works with the support maintenance personnel in accomplishing the quarterly service. Not only has the deadline rate decreased as a result of this effort but the technical knowledge of individual crew members has been increased as a result of the training received.

14. (U) The preceding paragraphs highlight observations made during the period of my command of I Field Force Vietnam Artillery. The annexes hereto cover in detail most of the subject discussed above as well as observations in certain other areas.
ANNEX A (PERSONNEL)

1. (U) Noncommissioned Officer Shortages:

   a. During the period of this report, all units in I Field Force Vietnam Artillery operated with shortages of noncommissioned officers in a number of critical MOSs. Shortages of such key personnel as First Sergeants, Gun Section Chiefs, Supply Sergeants, Motor Sergeants and Mess Stewards have at times degraded the combat effectiveness of units. These problems were somewhat alleviated by judicious selection of junior NCOs, on-the-job training and, where possible, consolidation of operations.

   b. The field artillery battalions have faced continuous shortages of middle grade NCOs in MOSs 13B40 (Field Artillery Firing Battery) and 13E40 (Operations and Intelligence). These shortages of section leaders are considered critical. Some progress has been made by giving on-the-job training to outstanding E4s, but this has been difficult to accomplish in combat. A number of graduates of the Fort Sill NCO Academy have been assigned to the command and those young NCOs are considered a real asset. Their training and technical knowledge have been good but their lack of experience is apparent in areas such as maintenance and, to some extent, in the achievement of higher standards. Overall, their performance has been excellent.

   c. Close monitoring of assignments has been necessary to ensure that at least one-third of the line NCOs in any firing battery are experienced. A preferred ratio is two-thirds experienced NCOs to one-third inexperienced NCOs for each firing battery.

2. (U) Utilization of Air Defense Artillery Officers:

   Approximately one-third of the artillery captains and almost one-half of the artillery majors assigned during the reporting period were Air Defense Artillery trained. Effective utilization of these officers in a command where only 36 of 490 commissioned billets call for Air Defense Artillery officers proved difficult. Each officer was carefully interviewed to assure that prior experience was given appropriate consideration in determining an assignment. Future assignments of other than Field Artillery officers to Field Artillery positions should be made only to those positions identified as requiring minimal Field Artillery experience. Further, the percentage of such officers assigned should remain below 25% of the total in any grade to avoid reducing the experience level of the organization to the point of degrading combat efficiency.
ANNEX B (COUNTERBATTERY PROGRAM)

(C) Counterbattery Program:

a. The success of any counterbattery program, and particularly an active counterfire program as employed in Vietnam, depends on detailed prior planning and rapid, aggressive execution. In order to achieve an effective counterbattery program, a coordinated effort between the maneuver unit and the supporting artillery must be made. Without this association, the two basic ingredients of target acquisition and supporting fires cannot and will not be integrated into a workable counterbattery plan.

b. In II CTZ, efforts to improve the quality, quantity and timeliness of counterbattery target acquisition have been concentrated in the following areas:

(1) Coordination of target acquisition. A tactical Fire Direction Center (FDC) is assigned responsibility for coordinating target acquisition and counterbattery fires for each base camp and fire support base. Direct communication is established from the FDC to all target acquisition and fire support means in the area.

(2) Target and Pattern Analysis.

(a) Continuing analysis of the enemy standoff attacks. The analysis includes likely mortar positions, rocket positions and areas from which flat trajectory weapons can be employed. The enemy often uses the same firing positions. Consequently, old firing positions are included in this analysis along with possible future firing positions, routes of withdrawal, likely assembly areas, and patterns from previous standoff attacks. Since the enemy frequently takes refuge in friendly villages along routes of withdrawal, these are pinpointed as possible sanctuaries. The 122mm rocket usually is employed at or near its maximum range (8000-11000 meters). Possible rocket firing positions are developed within a belt between these ranges around the defended area. These positions are based on detailed terrain analysis to isolate staging areas, likely infiltration and withdrawal routes and likely firing positions. This analysis is updated to reflect physical changes in the area and the tactical situation. OPs are then provided with this information so that they may have specific areas to search in the event of a rocket attack.

(b) An aggressive visual reconnaissance (VR) program is conducted in the vicinity of likely firing positions. VR is usually most productive in locating firing positions if conducted at last light when the enemy is moving into his forward assembly areas and/or firing positions.
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(c) Crater analysis and fragment identification (SHELLREP) are performed as soon as possible after each enemy artillery attack. Commanders supporting ARVN, RF, PF & CIDG units are tasked to provide these units training assistance in the techniques of crater analysis.

(3) Countermortar Radar (CMR). The daily analysis of the standoff threat is used to refine the primary and secondary sectors of search for the CMR. Information on other likely firing areas is also provided to the CMR crew. The pattern analysis is also used to relocate radars to more effective positions.

c. Counterbattery fires are planned on likely firing positions, routes of withdrawal and possible assembly areas. These fires are planned in detail and rehearsed thoroughly down to the lowest level. The counterfire targets are divided into sectors around the defended base area. When the enemy begins his standoff attack, if the general location of his firing positions are known, counterfires are placed on the planned targets in the appropriate sector and the CMR is reoriented if necessary. Counterfires are shifted throughout the sector and are placed on any firing positions which are confirmed from radar plots or visual sightings. Relatively large amounts of ammunition are used in counterfires, particularly if confirmed plots are obtained. Improved Conventional Munitions (ICM) are highly effective in counterfires.
ANNEX C (RADAR AND FORWARD OBSERVER UTILIZATION)

1. (C) **Countermortar Radar**: The countermortar radar (CMR), AN/MPQ-4A, is a major source of locating enemy mortar, howitzer and rocket firing positions. Since the enemy can conduct standoff attacks from any direction and the CMR sector of scan is only 445 mils wide, positioning and orientation of the radar are important aspects of CMR effectiveness. A measure of CMR effectiveness has been developed which is expressed as the percentage of those attacks occurring within range of a CMR for which firing position plots are obtained by the CMR. The effectiveness of all CMR in the II Corps Tactical Zone has generally increased (July 68 - 12.5%, August 68 - 55.5%, September 68 - 61%, October 68 - 57%, November 68 - 63%, December 68 - 78%, January 69 - 56%). This increase in proficiency is attributed to the following:

   a. An accurate pattern analysis of known enemy firing positions by type of weapon was made. Each radar section was furnished the location of the firing positions in their sector of operation to provide a quick reference for orienting the radar to the proper sector of scan.

   b. The operational period for each radar site was scheduled to coincide with the enemy's anticipated period of activity in a given area as determined from the times of previous attacks.

   c. Each CMR section was placed in direct communication with a supporting artillery unit. Each artillery unit had the radar plotted on an orienting chart and was thus able to give quick orienting data to the radar.

   d. The low trajectory modification of the AN/MPQ-4A CMR equips the CMR to accurately detect and determine the location of enemy artillery firing low trajectory weapons at QE of less than 800 mils. This modification was completed on all AN/MPQ-4A radars in II CTZ during the first week of November 1968.

2. (U) **Forward Observer Utilization**: Data on the daily utilization of forward observers (FO) were collected and carefully evaluated. Particular attention was focused on the number of FOs assigned to a unit, the number actually available for deployment and the number physically deployed. When redistribution of FO assets was required, the data base was used to determine which asset could best be moved. The employment of split batteries, a practice which was frequently necessary, reduces
the available FO assets since FOs were used as fire direction officers and assistant executive officers. Selected enlisted personnel were given forward observer training to further expand our artillery forward observer capability.
The accuracy of artillery fires and the capability to accurately mass fires within II CTZ have continued to improve due to the meteorological (Metro) and survey activities in support of IFFV.

a. A Metro quality control team is assigned to Hq, I Field Force Vietnam Artillery. This team has conducted extensive studies of the II CTZ climatological conditions and conducts a thorough monthly analysis of the validity of Metro messages produced in II CTZ by US Metro sections.

(1) The study of climatological conditions resulted in the decision to increase the number of atmospheric sounding from four per day to six per day effective 1 Nov 68. The increased frequency of soundings provides current Metro data every four hours rather than every six hours, thus increasing the accuracy of firing data which is derived from these more current Metro messages.

(2) The monthly analysis program has resulted in fewer errors in the Metro data produced. In November 1967 there were only 25 weather soundings checked by the quality control team; 25% of these were rated unsatisfactory. In August 1968, 773 soundings were checked with less than 1% found to be unsatisfactory. Since that time, the number of soundings checked has continued to increase, to 911 in February 1969, while the number of unsatisfactory soundings has remained below 1% each month.

b. The artillery survey effort in II CTZ has been concentrated on Fourth and Fifth Order Survey. This extensive effort has permitted the tying together of friendly artillery and mortar positions on a common grid system which enables accurate massing of fires.

(1) Fourth Order Survey has been performed by the survey platoon organic to the Target Acquisition Battery assigned to I Field Force Vietnam Artillery. Over 450,000 meters of Fourth Order Survey have been completed in the Task Force South AO alone (the southern four provinces of II Corps). Three and one half million meters have been completed throughout II Corps since September 1965. Recently, Fourth Order Survey was tied in with III Corps on QL 1 southwest of Phan Thiet to place both corps on a common grid.

(2) The two artillery groups were tasked to establish Fifth Order Survey Information Centers. The objective is to document all monumented Fifth Order Survey in II Corps to avoid unnecessary duplication of effort and to make current survey data available to units when they are deployed to new areas of operations. The groups and separate battalions have published Fifth Order Survey Trig Lists as a result of this effort.
ANNEX E (OPERATIONS)

1. (U) **Command and Control of General Support (GS) Artillery in Unconventional Warfare:**

   a. I Field Force Vietnam Artillery is responsible for area coverage of 79,140 square kilometers or approximately 47% of South Vietnam's land mass. Field artillery battalions have their organic batteries separated over great distances. In some cases, firing batteries of the same battalion were 175 miles apart. The automatic weapons battalion has elements scattered throughout II Corps with a small contingent in III Corps. Some of the techniques and innovations developed to provide the required fire support and to supervise and support these far flung units are:

   (1) **Area Control:** A battalion headquarters was made responsible for all I Field Force Vietnam Artillery units operating within a geographical area without regard to missions, caliber or affiliation.

   (2) **Platoon Employment:** Due to the limited artillery available, firing batteries have often been deployed by platoon to meet the urgent demands for fire support. Cross training of survey, communications and liaison personnel and augmentation of firing battery communications, power sources, vehicles, automatic weapons, mess and maintenance capabilities have been necessary. Currently, GS artillery provides artillery support for major cities, base camps and main highways in II Corps Tactical Zone.

   b. Artillery raids were conducted as a tactic to disrupt known enemy activity and sanctuaries. A raid is accomplished by rapidly deploying weapons to a position in range of preplanned targets and expending a predetermined amount of ammunition. To minimize security requirements, raids should normally be designed to be completed in one day and the unit returned to its point of origin.

   c. General support artillery units were given direct support and reinforcing missions as well as serving in a general support role. Battalion Commanders were often given full responsibility for fire support coordination. Their fire direction centers target and plan fires, obtain military and political clearance for firing, post air advisories and provide coordination and control of all supporting fires within a specified area of operation.
2. (C) Establishment of Combined Fire Support Coordination Centers (CFSCC) in II Corps Tactical Zone:

a. One of the major problems encountered during allied operations in the II Corps Tactical Zone was the lack of coordination of all available means of fire support in a given area. A contact initiated by a Regional Force element in Binh Thuan Province in August 1968 illustrates this problem. Numerous free world maneuver elements participated in the contact. Among them were three battalions of the 44th ARVN Regiment, the 3d Battalion, 506th Airborne Infantry and numerous Regional Force and Popular Force units. Fire support means available were US and ARVN artillery, tactical air, naval gunfire and helicopter gunships. The artillery liaison officers, air liaison officers, naval gunfire liaison officer, S3 air and other staff officers normally associated with a fire support coordination center were all present but not collocated to perform liaison and coordination functions. Each section worked independent of the other and, as a consequence, effective fire support coordination was not performed. The enemy force, estimated to be battalion strength, escaped with light casualties.

b. The solution to this problem was to form a combined ARVN/US FSCC, collocated with the 3d Battalion, 506th Airborne Infantry TOC, in which all available means of fire support could be coordinated and integrated with the maneuver elements. The CFSCC provides both political and military clearance for all fire support in Binh Thuan Province and efficiently allocates appropriate fire support means to attack a target.

c. Continued command emphasis on the establishment of Combined Fire Support Coordination Centers has resulted in additional centers being established at Ban Me Thuot in Darlac Province and at Kontum City. Combined Fire Support Coordination Centers also exist to support the defense of population centers at Pleiku, Qui Nhon, Phu Heip and Nha Trang. Additional Combined Fire Support Coordination Centers are planned for Dak To, Tuy Hoa, LZ English and LZ Uplift.

3. (U) Artillery Coverage of Road Networks in II Corps Tactical Zone (CTZ):

a. Artillery coverage of major road networks within II CTZ has been a matter of continuing interest and concern to Headquarters, I Field Force Vietnam. In March 1969, 99% of all major ground routes were covered by artillery fire. This coverage provides a twofold benefit. First, it has permitted rapid artillery response when friendly elements were ambushed or attacked while travelling these routes. Secondly, since the majority of the population lives along the main routes of communication the people have been afforded an increased degree of protection. Although the presence of road coverage has not eliminated ambush, it has certainly
deterred the enemy and caused him to alter his tactics in conducting ambushes since he knows there will be violent artillery reaction to any such attack. It has also been noted that the enemy will seek out areas where friendly artillery coverage is not available and conduct ambushes in these areas.
1. (C) **US Artillery Assistance Programs to RVNAF:**

   a. In August 1967, liaison was established with Vietnamese artillery units to isolate problem areas which lent themselves to solution through US artillery assistance. The objectives of this assistance were to improve the effectiveness of RVNAF, to develop additional channels for coordination of fire support and to provide a vehicle for mutual understanding between allied artillery forces.

   b. US artillery organizations in the II Corps Tactical Zone conduct three assistance programs: CIDG Assistance, Associate Battery, and RF/PP and RD Assistance. Each major US organization is assigned responsibility for providing assistance to all Vietnamese elements in a specific geographical area. The programs are outlined as follows:

   (1) **CIDG Assistance Program:** The purpose of the program is to provide technical and training assistance to CIDG artillery and ensure that fire support can be obtained by CIDG personnel for defense of their camps. Established in February 1968, the program encompasses training of CIDG artillery personnel in service of the piece, fire direction and forward observer procedures. Technical assistance is provided in maintenance, communications, firing data computations and overall operations. US artillery units conduct periodic visits to each of the camps within their respective area and provide assistance as required. Close coordination is accomplished with US Special Forces personnel responsible for the camp in the scheduling of visits and determining the assistance needed.

   (2) **Associate Battery Program:** Established in March 1968, the program's concept assigns each US artillery battery responsibilities for mutual support and assistance to an ARVN artillery unit. This association is designed to augment existing advisory programs and improve effectiveness of the ARVN artillery. Technical advice in fire support, operations, maintenance and communications is provided as requested or deemed appropriate.

   (3) **RF/PP and RD Assistance Program:** Established in June 1968 for RF/PP and in August 1968 for RD, the objective of this program is to ensure that the RF/PP and RD outlying posts and operation bases have the capability of requesting and adjusting artillery fires for the defense of their positions and support of their operations. Working through
US advisors, artillery units provide training in forward observer procedures, aid in establishing adequate fire request channels and plan for defensive targets. The program emphasizes coordination between allied artillery units to ensure that RF/PF and RD personnel are capable of obtaining artillery support when needed.

c. The progress that has been made since initiation of these three programs has been most encouraging. The establishment of the assistance programs has enabled both ARVN and US units to identify areas requiring additional attention and, through emphasis on these particular areas, achieve improvement in the proficiency of the CIDG and ARVN artillery units. Some of the benefits derived are as follows:

(1) CIDG Artillery Platoons have demonstrated an increased desire to learn and to achieve a higher degree of professionalism in the delivery of fire. Fire direction computations and firing battery operations now include use of meteorological and survey data. As a result, the accuracy and effectiveness of the CIDG artillery fires have improved.

(2) Through the association of ARVN and US artillery units, artillery fires are massed more frequently and joint artillery missions are conducted in support of allied maneuver units.

(3) Allied artillery coverage of RF/PF locations increased from 90% in March 1968 to approximately 97% in October 1968. Significant progress has been achieved in training RF/PF and RD personnel in forward observer procedures.

d. The three assistance programs have attainable goals and encourage a closer relationship between Vietnamese and Americans at the lowest levels. Improvements gained thus far have demonstrated a sincere desire by all concerned to improve the effectiveness of the artillery and increase the cooperation among the allies.

2. (U) Forward Observer Training Course:

a. The I Field Force Vietnam Artillery Forward Observer Training Program (FOTC) is conducted under the supervision of the 41st Artillery Group at An Khe. Several courses of instruction are presented. There is a 5-day course for US artillery lieutenants and ARVN personnel, a 4-hour course for 1st Cavalry Division and 173d Airborne Brigade replacements, and an 8-hour course for RF/PF and RD personnel. These courses provide instruction to artillery personnel on lessons learned in Vietnam and instruct non-artillery personnel in the fundamentals which will enable them to call for and adjust artillery fire.

b. Over 3100 students graduated during the period July-Dec 68; 618 of these were ARVN personnel.
3. (U) **Fire Direction Officers Training Course**: The 1 Field Force Vietnam Artillery Fire Direction Officer Course at Pleiku is a 6-day period of intensive instruction for US and ARVN artillery personnel designed to reinforce previous training in basic gunnery and FDC procedures and to teach those fire direction techniques peculiar to operations in Vietnam. The total output for the period July through December 1968 was 239 personnel.
1. (U) Artillery Ammunition Expenditure Analysis:

a. To continue and broaden the scope of the artillery ammunition expenditure analysis and management program which was established in March 1968, an Ammunition Analysis Section consisting of one officer and two computer operators was established within the S3 Section of I Field Force Vietnam Artillery in September 1968. Basically, the section functions include computer operations, general and detailed analysis of expenditure trends, development of recommended ASRs, and preparation of reports, messages and briefings on ammunition expenditure. The establishment of the Ammunition Analysis Section has permitted a more comprehensive analysis of artillery expenditure in the II Corps Tactical Zone. Through monthly analysis, numerous programs have been initiated in the areas of target analysis, target acquisition, fire planning and coordination of artillery fires.

b. As a result of these programs, a significant shift in the categories of artillery expenditure has been experienced. For example, during the five month period from March through July 1968, 16% of the total rounds expended were fired against confirmed targets, 22% on acquired targets and 30% on interdiction targets. In contrast, during the five month period from August through December 1968, 21% were expended on confirmed targets, 25% on acquired targets and 11% on interdiction targets.

c. In general, the ammunition analysis and management program has resulted in more effective use of artillery munitions at lower costs, increased emphasis on artillery target acquisition and analysis, fire support planning, and coordination of fire support means.

2. (C) FIRECRACKER Expenditure:

a. During the period 11 August 1968 through 31 January 1969, only rounds of Improved Conventional Munitions (FIRECRACKER) were expended in II Corps Tactical Zone. Factors contributing to this low expenditure were restrictive rules of engagement, lack of familiarity with the capabilities and effects of FIRECRACKER, and a reluctance on the part of ground commanders to employ FIRECRACKER in areas which they intended to enter because of the hazards from dud bomblets.

b. A letter prepared by this headquarters was approved and forwarded to Military Assistance Command Vietnam recommending changes in the rules of engagement which would permit firing on valid acquired targets without an observer and allow the expending authority to be delegated down to company and battery level when on independent operations.
c. In order to provide commanders with the necessary information on the use and effects of FIRECRACKER, courses of instruction were presented, demonstrations conducted and command emphasis was placed on the subject. As a result of these efforts expenditures for February and March show a substantial increase.
ANNEX H (ARTILLERY SAFETY)

(U) Artillery Safety:

a. The Commanding General, I Field Force Vietnam Artillery, as Artillery Officer of I Field Force Vietnam, has staff responsibility for the Artillery Firing Safety Program of all US Artillery units in I Corps Tactical Zone (CTZ). To assist in discharging these responsibilities, an artillery safety office was established in mid-October 1968 in the I Field Force Vietnam Artillery S3 Section. The objective assigned to this office was to develop a more coordinated and comprehensive artillery firing safety program for II CTZ.

b. The primary objective of the program is to prevent artillery firing accidents from occurring. This is accomplished through command emphasis, training programs, detailed SOPs, vigorous supervision and the dissemination of appropriate lessons learned based on analysis of investigation reports. A second objective of the program is to review and staff for CG, I Field Force Vietnam those reports of investigations of artillery and mortar accidents which do occur. It has been clearly established that the majority of accidents which occur are due to a breakdown in the artillery double check system. Enforcement of the double check system requires continuing command emphasis at all echelons and prompt corrective and punitive action where appropriate.

c. During 1968, over 16% of the artillery accidents resulted from causes which were not the fault of the artillery. The majority of these were caused by civilian personnel being in unauthorized areas and because clearances were granted for firing into populated areas. As a corrective measure, the artillery safety office prepared and disseminated a series of guidance letters to appropriate US/ARVN/FWMAF and US Advisors in II CTZ. These letters (a) emphasized the need for improvement in the procedures used for identifying occupied villages and hamlets, (b) encouraged the RVN authorities to exercise restraint when granting clearances to fire in order to minimize casualties of friendly personnel, (c) specified that the province or district chief must personally approve clearances for artillery fires in or in close proximity to villages or other populated areas, (d) stressed the importance of maintaining current, complete and accurate logs of clearances to fire and (e) outlined certain special considerations applicable to artillery illumination fire.
ANNEX I (ARVN ARTILLERY EFFECTIVENESS)

(U) **ARVN Artillery Effectiveness:**

a. Reports from US units involved in the Associate Battery Program indicate that ARVN artillery units are accomplishing their mission of providing fire support in a highly effective manner. The proficiency in firing battery procedures continues to improve as many of the men have been with their howitzer section for a year or more.

b. ARVN Artillery Fire Direction Centers are good. The facts that in most cases they consist of only three or four men (making it impossible for them to operate a check chart, and that safety is not a prime consideration do not seem to degrade their ability to compute firing data quickly and accurately. There have been scattered reports that ARVN artillery has been somewhat slower than US artillery. In a few instances it has been noted that ARVN artillery units are weak in their ability to apply Metro corrections. US batteries associated with ARVN units have conducted instruction where necessary with positive results. Metro application, however, is still used infrequently by ARVN units. Mutual support through planning of defensive targets, massed fires and combined support of allied operations is performed throughout the II Corps Tactical Zone.

c. ARVN artillery units stress maintenance, and reports rate their maintenance from satisfactory to excellent. However, the lack of repair parts supply has adversely affected the otherwise commendable maintenance programs of ARVN units in the II Corps Tactical Zone. Reports of poor repair parts supply have decreased considerably in the last month and this area is now rated as adequate in the majority of units. ARVN artillery, given the necessary logistical support, has the proficiency and ability to accomplish the mission.
(U) **Heavy Artillery Maintenance Program:** To reduce the unusually high deadline rate of heavy artillery, a new concept for maintenance in Vietnam was recommended by this headquarters. The concept, which was subsequently adopted for all of Vietnam, provides a quarterly maintenance program wherein each heavy artillery piece is brought with its crew from isolated fire bases to the appropriate direct support maintenance facility where complete system service is performed in a suitable environment. Not only has the deadline rate been reduced, but the technical knowledge of the individual crews has been increased as a result of the training they receive. The Commanding General, 1st Logistical Command, has been well pleased with the progress of this program and is expanding it to include 105mm and 155mm self-propelled howitzers. The full benefit of the program cannot be evaluated at this time since the technical skill levels of the DSU are still being developed and the supply system has not had time to react and fully stock the extra parts authorized for the battery and the direct support unit. Initial results indicate that the average deadline rate has been reduced from 15.8% for weapons without the maintenance to 5% for weapons that have received the quarterly servicing.
ANNEX K (CIVIL AFFAIRS)

(U) Establishment of Civic Action Course:

As a result of a request from I FFORCEV Artillery, I FFORCEV tasked the Military Civil Affairs Division, CORDS, to develop a civic action course for all US units in II Corps. This nineteen hour course will accommodate forty students and will be offered every six months. First priority attendance is for officers detailed as the S5, Civil Affairs Officer, of brigades, battalions and major combat support units. Second priority is for company/battery commanders, platoon leaders and senior NCOs engaged in civic action work. This school will enhance the civic action programs in I FFORCEV Artillery by providing a base from which to develop worthwhile civic action projects.
(U) Employment and Utilization of Secure Voice Equipment in I Field Force Vietnam Artillery:

a. During the latter part of 1968, secure voice devices were issued to all I Field Force Vietnam Artillery units enabling them to pass secret information over FM radio. The two types currently in use are the KY-8 and the KY-38. In addition, the KY-28, which is used in conjunction with the AN/ARC-54 aircraft FM radio, is expected to be on hand by April 1969. The KY-8 is used in the artillery group command nets and for internal communications in the majority of the battalions. The KY-38/PRC-77 combination is providing reliable, short-range secure communications and will replace the AN/PRC-25 as the standard portable FM radio. The KY-38 is used by firing batteries, forward observers and liaison sections.

b. Several of the problems initially encountered concerning the speech security devices have been overcome. Substantial quantities of the keylists, that were once a problem to obtain, are now being received. Operators manuals are no longer in short supply and maintenance support for the various devices is excellent. Problems still being encountered pertain to the lack of critical components. The installation kits, which contain the X-mode cables and radio adapter cards, still remain a critically short item in country.

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