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DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY VIETNAM
APO SAN FRANCISCO 96307

AVC-DH

AD393827

5 JUN 1966

SUBJECT: Letter of Transmittal

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

The enclosed copy of the II FFORCEV Artillery Operational Report on lessons learned was forwarded to this headquarters in error. It should have been sent to your office by Headquarters II FFORCEV.

FOR THE COMMANDER:

[Signature]

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ARV665-1595
SUBJECT: Letter of Transmittal

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

The inclosed copy of the II FF & RD Artillery Operational Report on lessons learned was forwarded to this headquarters in error. It should have been sent to your office by Headquarters II FF & RD Artillery.

FOR THE COMMANDER:

G. A. STRASSBURGER
1st Lt., ACA
Asst Adjutant General

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bealo report.   A topographic survey  
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(Upo0E*phio)(Corp«) will oonplet« establishing survey control In vicin-  
ity of all IK base camps, in the III Corps Taotioal <x*»e, on 24 «V 1966.  
Artillery units will continue to have responsibility for extending the  
control into artillery positions.  
3. (U) The following comments and/or information are referenced to  
appropriate recommendations contained in SECTION II, PART A of the basic  
report.  
a. (9) Reference SECTION I, PART C, paragraph 2f, page 10 of the  
basic report. A topographic survey team from the 969th Engineer Company  
(Topographic)(Corps) will complete establishing survey control in vicinity  
of all US base camps, in the III Corps Tactical Zone, on 24 May 1966.  
Artillery units will continue to have responsibility for extending the  
control into artillery positions.  
3. (U) The following comments and/or information are referenced to  
appropriate recommendations contained in SECTION II, PART A of the basic  
report.  
a. (9) Reference paragraph 1. This headquarters concurs.  
Justification for the additional 37 radar detachments is included in  
letter, Headquarters, II Field Force Vietnam Artillery, 2 May 1966,  
subject: Requirement for Countermortar Detachment (U), to Commanding  
General, United States Army Vietnam. The detachments will be included  
in the CT 67 troop requirements. This headquarters also concurs in the  
recommendation that a feasibility study be made relative to enlarging  
the scan capability of the XH-41 radar.  
b. (3) Reference paragraph 2. Action by this headquarters  
to augment II FFORCST Artillery with an aviation section is pending  
receipt of a written request and justification from II FFORCST Artil-  
lery Headquarters. The need for aviation for that headquarters is  
recognized and as an interim solution is being provided by the flight  
detachment from this headquarters.  
c. (U) Reference paragraph 3. This headquarters concurs.  
d. (C) Reference paragraph 4. Though not involved in logis-  
tic activities as an operator, this headquarters concurs in the recommend-  
conference. The shortage of meteorological supplies has adversely  
effecting the operational capability of the two meteorological sections  
present in the III CTZ. This problem was pointed out in a command letter  
from the Commanding Officer, 23d Artillery Group, 3 May 1966, subject:  
Meteorological Supplies, to the Commanding General, United States Army  
Vietnam.  
ARV-C-66-S 3904
SUBJECT: Operational Report on Lessons Learned for Quarterly Period Ending 30 April 1966

e. (U) Reference paragraph 5. This headquarters concurs and further recommends that sponsoring units designated by headquarters, USARV be required to advise incoming units of the requirement prior to their departure from CONUS. The information is being included in a letter being sent to incoming units sponsored by this headquarters.

f. (U) Reference paragraph 6. Nonconcur with recommendation as stated. CONUS posts have POR/PM directives that pertain to shipment of individuals and units to all theaters. Recommend that DA be advised that some units are experiencing difficulty with these directives not being consolidated or properly updated.

g. (C) Reference paragraph 7. DA message (FOO) 750855, dated 14 January 1966 stated that the 19 EM (short) have a port call availability date of 12 March 1966. On 23 March 1966 II FORGEV Artillery advised headquarters, USARV by II FORGEV Artillery message, cite 03232, dated 23 March 1966, that the 19 personnel had not arrived. As a result, this headquarters requisitioned 13 05020 and 2 05320 on 5 April 1966 (Requisition Number J-46).

FOR THE COMMANDER:

VERNON R. RIDER
Colonel, AG
Adjutant General
SUBJECT: Operational Report, five weeks for quarter ending 30 April 1966

THRU: Commanding General
II Field Force Vietnam
APO U.S. Forces 96227

THRU: Commanding General
United States Army Vietnam
APO U.S. Forces 96307

THRU: Commanding General
US Army Pacific
ATTN: G9CP-MH
APO U.S. Forces 96503

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

In compliance with AR 525-24 dated 29 October 1959, the Operational Report on Lessons Learned for the period 17 January - 30 April 1966 is attached in sections I and II.
A. ACTIVATION AND PREPARATION FOR MOVEMENT TO THE REPUBLIC OF VIETNAM. (U)

1. (U) Activation.

a. On 17 January 1966, Headquarters and Headquarters Battery, II Field Force Vietnam Artillery was activated at Fort Sill, Oklahoma by United States Army Artillery and Missile Center General Order 9, dated 13 January 1966. Activation authority was Department of the Army Message 745982 dated 5 January 1966. The unit, at the time of activation was designated Headquarters, II Field Force Artillery and was organized under TOE 6-501E, 1964 with change 1, with an augmentation of a Fire Support Coordination Element (FSCE).

b. An equipment readiness date of 10 February 1966 and a personnel readiness date of 27 February 1966 were established and the unit was alerted to move to the Republic of Vietnam with a total TOE authorized strength of 34 officers, 2 warrant officers, and 159 enlisted men.

c. On 11 January the Headquarters and Headquarters Battery occupied its temporary offices on Currie Road at Fort Sill. From these buildings, the headquarters directed all activities incident to activation, equipping, and preparation for overseas movement up to the time of deployment.

2. (2) Personnel

a. The rapid assembly of personnel was the most pressing action and preparations were made to have as many officers, key NCO’s and lower grades as possible present for duty by the formal activation date. Obtaining personnel was a relatively slow process as many of the officers and enlisted men had to be provided by units at Fort Sill who were themselves badly in need of personnel. Further delay was experienced because of the necessity of obtaining Department of the Army clearance on every officer and enlisted man in grade E-7 and above.

b. On the date of activation, 17 January, 26 officers and 33 enlisted personnel were present for duty. On this date Colonel George R. Allin Jr., former Deputy Commander of III Corps Artillery, officially assumed command until arrival of the unit in Vietnam on 10 March. Colonel Willis D. Crittenden Jr. was designated by Department of the Army on 7 January 1966 to command the headquarters, and departed CONUS for Vietnam on 17 February to meet the unit on its arrival.

c. Preparation for overseas movement, processing and training began concurrently with the arrival of personnel to fill the staff sections and the Headquarters Battery so that by the date of formal
activation operations were in full swing. Most personnel positions were filled by 29 January; notable exceptions were eighteen radio operators and a secretary - stenographer. Sixteen of the radio operator spaces remained unfilled four months later.

d. Headquarters, III Corps Artillery was designated as the immediate source of personnel and direct support for the unit. Six officers and 14 enlisted personnel were assigned directly from III Corps Artillery; many came from other Fort Sill units, but the majority of the officers (sixteen in all) came from the various departments within the US Army Artillery and Missile School. Many highly qualified personnel were provided from these sources, and a feeling of distinction in being chosen for the unit was evident. Morale was similarly high among the enlisted ranks and remained so through the following months. After the date of activation one Legion of Merit, ten Army Commendation Medals, and four Certificates of Achievement were awarded to various officers and enlisted men for their work in former units.

3. (U) Intelligence

a. Upon activation, a major administrative task faced the S-2 section in validating security clearances and initiating requests for higher security clearances to allow personnel to perform in their new assignments. By setting up an assembly-line type operation, all clearances were quickly validated and requests for higher clearances processed prior to departure from home station. During this period the S-2 section also gave required security briefings, made security inspections, and collected all available data on the anticipated area of operations.

b. Maps for the II FIELD FORCE Artillery were requisitioned by II Field Force Vietnam and arrived in time for deployment. A particular problem in maps for Vietnam is the lack of a usable 1:100,000 scale map series. In the course of operations it has been found that the 1:250,000 scale is too small for detailed planning while the 1:50,000 scale map requires the use of huge map boards, often broken into sections, to cover the unusually large III Corps Tactical Zone. The 1:50,000 scale series also has several inaccuracies, but a new series of this scale is to be issued in May.

4. (U) Training

a. Most of the training given to the officers and NCO's of the unit was provided by the United States Army Artillery and Missile School. These classes consisted of a review of the organization and methods of employment of corps artillery; fire planning, and gunnery. In addition, the School gathered together many officers who were returnees from Vietnam to provide a valuable insight as to what to expect and prepare for in connection with duty in Vietnam.
Other valuable information was obtained from documents written by units already in Vietnam in the form of lessons learned and critiques of operations. All personnel underwent an intensive training program oriented toward operations against irregular forces and command emphasis was given to the sixteen hour training program directed by USCONARC for units destined for duty in the Republic of Vietnam. The required subjects as outlined by USCONARC Pamphlet 350-16 were:

1. Orientation - 2 hours.
2. Perimeter Defense - 1 hour.
3. Duties of Sentries - 1 hour.
4. Ambush Drill - Mounted and Dismounted - 8 hours.
5. Sanitation - 1 hour.
7. Lessons Learned - 1 hour.
8. Miscellaneous - 1 hour.

In many instances subjects were given at least twice in order to allow personnel to make up missed classes.

b. Other training conducted included: familiarization and qualification in arms, first aid, escape and evasion, and safeguarding classified information. All personnel were required to qualify with their individual or crew-served weapons if their service record indicated they had not accomplished this in past year, and all personnel were required to familiarize with as many of the unit's weapons as time would permit. Concurrently, personnel were administratively processed for overseas movement. This included a records check, ID Card and identification tag checks (and replacement as needed), administration of required immunization, and initiation of allotments, wills, and powers of attorney.

b. (v) Logistics.

a. The original logistical plans for deployment were based on an assumption that the unit would be a tactical field headquarters with a requirement for relative mobility. Immediate requisition for and drawing of supplies and TOE equipment was begun on this basis. It was not until sometime after activation that the 8-4 section learned from the II Field Force headquarters forming at Fort Hood that both units were expected to bring post, camp, and station property in order to set up a permanent compound area. On 8 February approval was granted through G-4 at Fort Sill from Department of the Army, to bring this equipment. Transportation to the
port was expected to begin on 10 February. Partial drawing of the station equipment had begun on the 6th but the major part of 55 steel desks and chairs, 17 filing cabinets, 4 refrigerators, and 16 extra tents were drawn, crated, packed in CONEX containers and loaded aboard railroad flatcars for the journey to Oakland between 8 and 10 February. This was accomplished while the advance party and most of the main body were on leave.

b. Simultaneously the remainder of 37 CONEX containers were packed and loaded at the railhead and all unit vehicles were prepared for shipment by "lowboy" truck-trailer to the same port. All this packing, crating, and loading was accomplished in three days by a total crew of 20 men. On the morning of 10 February the last item of equipment was issued and at 1630 hours that day every item of equipment was ready to move. In all a total of well over 900,000 pounds of equipment was packed at Fort Sill to be joined by 100,000 board feet of lumber at Oakland.

c. The CONEX containers, loaded on flatcars, departed on the 10th and the vehicles on lowboys proceeded the next day for Oakland. An escort officer and loading party of 8 enlisted men flew by commercial aircraft to the coast to meet them. The equipment began to arrive at the coast on 14 February, and two weeks later it departed Oakland on the USS Baton Rouge Victory with one officer and one sergeant aboard. The remainder of the loading party rejoined the unit at Fort Sill. The inclusion of the escort officer and sergeant on the ship's passage proved to be particularly rewarding. On arrival in Saigon Harbor their assistance in rapid priority unloading through their knowledge of the exact loading plan was most worthwhile.

6. (U) IG Inspection.

While the main body was on leave the unit stood an Inspector General pre-deployment inspection on 17 February. It was reported to the IG that although there were personnel shortages and a minor lack of equipment and supplies, the unit was ready to proceed on the deployment date. It was stated by the commander, and noted by the IG team, that the unit would require three to four weeks of training in-country before it could adequately assume and perform its mission. The Inspector General remarked that the unit was ready for deployment provided that the personnel shortages could be filled.

B. DEPLOYMENT (U).

1. (U) Advance Party.

a. The advance party began to return from leave on 16 February and departed on schedule at 1900 hours, 21 February from Fort Sill. The party was headed by the Executive Officer, Colonel Thomas H. Sayes. Other members of the party were an assistant S-2 (Maj), 2 assistant S-3's (Maj and Capt), an FSCE duty team chief (Maj), an FSCE target
analyst (Capt), an assistant S4 (Capt), and the general's aide-de-camp (Lt). Also included were an operations sergeant from the S3 and FSCE each and two clerk typists. The party left from Tinker Air Force Base in Oklahoma City on a C-141 aircraft taking with them the minimum essential equipment (MEE) necessary to set up and operate an advance CP until the arrival of the main body. The advance party proceeded to Fort Hood to pick up the advance party from II Field Force Headquarters and their minimum essential equipment. Both parties then proceeded on to Travis AFB and departed the CoUS on 22 February. The party arrived at Bien Hoa Air Base on 24 February and was moved by vehicle to quarters in Bien Hoa.

b. After sizing up the task at hand the group was divided into two sections. One section was directed to seek out answers to the multitude of questions on operations, logistics, and administration which had been developed at Fort Sill. The other section devoted its time to planning the layout of the cantonment area to be built, and preparing for the arrival of the main body. Transportation immediately became the biggest problem with one 2-ton truck and one sedan available to the entire party.

c. In preparing for the arrival of the main body considerable planning was necessary. Arrangements had to be made for housing, feeding, and transporting the main body for the first few days after arrival until a temporary camp could be set up using the MEE of the main body. It was decided that Fort City "B" at Tan Son Nhat should be used for this purpose because of its convenient location close to the airbase and the facilities available there. The advance party made numerous liaison visits to collect information in order that this information would be available to the main body when it arrived. Included were trips to the 23rd Artillery Group, 1st Infantry Division and Division Artillery, 1st Logistical Command, 60th Ordnance Support Group, United States Army Vietnam and I Field Force Artillery in Nha Trang.

2. (U) Main Body.

a. The main body returned from leave on 21 February. During the final week the sections completed the required training and packed the minimum essential equipment (MEE) to accompany the main body by air. The major elements of the main body departed from Fort Sill in civilian buses for Tinker Air Force Base after a send-off ceremony by Brigadier General John D. Torrey, acting Post Commander, and the 97th Army Band. The vehicles carrying the MEE and personnel to load it aboard the aircraft preceded the main body to have the aircraft ready to go by the time the main body arrived.

b. The departure plan specified four aircraft to carry all personnel of the main body and the MEE. Each aircraft would carry part of this MEE and sufficient personnel to insure that the equipment would
not become misplaced at intermediate stops, or upon arrival in Vietnam. Every plane contained rations, weapons, and tentage to support its personnel in the event of an emergency. Personnel and equipment to leave on the first C-124 left Fort Sill at 0300 hours on 6 March. This first load consisted primarily of equipment. A similar group departed at 0300 hours the next day for the second C-124, and was followed that day and the 8th by the majority of the passengers to travel in C-141's. With the exception of one aircraft all planes arrived on 10 March. The other aircraft was delayed at Travis for two days due to an overload of cargo. Colonel Crittendenber and other members of the advance party met the planes, and their passengers and cargo were taken immediately to Tent City "B" where they remained for five days. With the arrival of the three planes on 10 March, Col Crittendenber formally assumed command of the unit.

C. OPERATIONS IN VIETNAM. (U)

1. (C) Operational Readiness.

   a. Shortly before the arrival of the main body, the unit was notified that it was to be operational by the 15th of March. Plans for unit training were abandoned and feverish activity was begun in order to meet the readiness objective. While the unit was housed at Tent City "B" it traveled daily to the site of its new home near Bien Hoa. Work was begun immediately on the erection of tents and other facilities at the camp.

   b. The readiness date was met, but under very minimal circumstances. The unit moved to the camp site on 14 March with all tents erected and a mess operating. All sections were operational the next day with minimum communications and facilities since the majority of the TOE equipment had not yet arrived. Since II Field Force and II Field Force Artillery were collocated, the Field Force Artillery was able to borrow a building from II Field Force until the buildings for the Field Force Artillery were completed. The S2 and S3 were operational together in one partially completed building and, on 16 March the S4 section moved into its partially completed building, shared temporarily with the mess center. The fire support coordination element (FSCE) was operational, housed in a portion of the half-completed tactical operations center (TOC). The S2 and S3 sections and the FSCE erected operations maps and charts and opened journals.

   c. Requests for artillery and naval gunfire were processed through the II Field Force Artillery S3 and the naval gunfire liaison officer, respectively. Until the Tactical Air Support Element of the II Field Force TOC became operational, the FSCE was not able to process requests for air support. These were handled by coordination through the 1st Infantry Division.
d. Liaison officers from II Field Force Artillery were furnished to 1st Division Artillery and to III Corps of the Army of the Republic of Vietnam. On 24 March 1966, II Field Force Vietnam artillery assumed operational control of the 23rd Artillery Group, with headquarters at Phu Loi. The Group was organized as follows:

2. 2d Battalion, 13th Artillery (105mm towed).
3. 6th Battalion, 27th Artillery (8 inch SP).
4. 2d Battalion, 32d Artillery (175mm) (SP).

2. (c) Significant Activities.

a. Harassing and Interdiction Program.

1. Upon attaining operational status after five days in-country, the first operational task confronting the headquarters was the conducting of a harassing and interdiction (H&I) program. Since the 23d Artillery Group had maintained the program in the absence of a higher artillery headquarters, it was decided that representatives from the S2 and S3 sections should visit the 23d Group and observe their operation for several days. Major Griffith, Assistant S-2, and Captain Phelan, Assistant S-3, made such a visit and after spending two days with the Group returned to begin writing an H&I directive. This directive was written to implement an H&I directive published by COMSHAVN in early March 1966 requiring that all senior US commanders develop and conduct an integrated H&I program using all available means. Several problem areas were encountered in the preparation to implement this directive. First was the problem of obtaining reliable target information. The S2 section, II FFAVEV Artty coordinated with all available intelligence agencies, to include the Combined Intelligence Center Vietnam (CICV) at TAN Son Nhut, the main targeting agency for B-52 strikes. This center has proven to be one of the best sources of targets for the II FFAVEV Artty H&I Program. Second was the problem of clearing targets prior to firing to insure that no innocent civilians or friendly troops would be killed or injured. Clearance with ARVN is, in most instances, time consuming, and all political and military units must report before final clearance can be given. In addition, all US commanders controlling Tactical Areas of Responsibilities (TACR's) or Areas of Operation (AO's) must be certain their areas are cleared prior to firing. Third was the problem of air notification. All aircraft must be notified when and where medium and heavy artillery is firing to prevent hazardous conditions for the aviators when traversing the area.

2. Through close coordination with all agencies, solutions to these problems were included in an integrated H&I program.
SECRET
directive to be published by Headquarters, II Field Force Vietnam. To
insure the best coverage of the corps tactical zone, each division and
separate brigade would conduct an H&I program within its own TAOR's and
AO's. The II FFORCERV Arty H&I program is planned to cover those areas
which can not be reached by the Division or Brigade artillery, with
emphasis being placed on areas outside the US TAOR's and AO's. Local-
tive targets which fall outside the range capabilities of the II FFORCERV
ARTY are forwarded to the Fire Support Coordination Element (FSCE) for
inclusion in the II FFORCERV integrated H&I program for attack by other
means. Soon targets were pouring in from over ten sources and on 27
March 1966, II FFORCERV Arty assumed control of the artillery H&I program
from the 23rd Artillery Group.

b. (S) US Artillery Support for Special Forces Camps. The defense
of the 17 Special Forces Camps in the corps area was of major concern
to the headquarters as most of these camps were in remote and unsettled
areas of the country and were particularly vulnerable to Viet Cong attack.

(1) The first step taken to provide artillery support for
these camps was the development and implementation of an airmobile 105mm
artillery battery which could be quickly helilifted to a previously planned
site to defend against the attack or could support an aggressive operation
out of the camp. The battery would move from camp to camp, preparing sites
in each and staying only a few hours to frustrate any reaction by the Viet
Cong. Carried by helicopter and supported by infantry the roving battery
would be able to provide powerful artillery fire support to any point in
the III Corps Zone in a matter of hours. The airmobile battery concept
was put into practice in Operation PITTSBURGH. This operation employed
four howitzer sections of Battery A, 2d Howitzer Battalion, 13th Artillery
which were heli-lifted from their base camp at PHN LOI to a Special Forces
outpost at TANH NH on 27 March. The move was intended to provide support
to the camp for the period involved, to demonstrate to the Special Forces
personnel the feasibility of such an operation, and to give the artillery
experience and practice in its execution. Two reinforced platoons of the
17th Cavalry, 173d Airborne Brigade were airlifted into the area to provide
security for the artillery battery. During their 31 hour stay in the camp,
the battery expended 320 rounds of ammunition on targets of opportunity
and harassing and interdiction missions. At a critique held at II
Field Force Vietnam the operation was generally regarded as successful.
However, it pointed up the necessity for closer coordination with the
infantry security force and better communications between all elements;
and with the appointment of an overall commander it was expected that
future operations would be greatly improved.

(2) Additionally, the Force Artillery was directed by
the Military Assistance Command, Vietnam, through II FFORCERV to develop
plans for the defense of those Special Forces locations with heavy artillery.
Heli-lifting the 8-inch and 175mm guns was out of the question; consequent-
ly, plans were drawn up to provide for considerable engineer work on many
of the routes in order to provide class 60 conditions to enable the track
recovery vehicles accompanying all heavy artillery to pass along those
routes. If it were not for the VTR moving with the artillery the engineer
work would be minimal but the consequences of abandoning a disabled gun could be severe. The plan called for the displacement, on order, of a battery of heavy artillery from Phouc Vinh, Bear Cat, or Cu Chi to the threatened camp or to an area within range of the camp. The approximate time necessary to accomplish the move would be six to nine hours. The majority of this time would be used in loading ammunition and readying the convoy, as the administrative and logistical requirements for the vehicle would preclude pre-loading.

c. (S) Assistance to ARVN Artillery. At the request of MACV, the headquarters began a study of the various means which would enable the ARVN to free its own artillery from its primary role of base camp and hamlet/village protection for use in support of ARVN operations. It was determined that significant gains might be made by providing US artillery support of ARVN outposts and base camps, improving communications channels to facilitate requests for US artillery fire, establishing the aforementioned airmobile battery, and demonstrating the potential of a capability to quickly mass fires. The study revealed that the Vietnamese are basically skilled artillerymen; however, minimal manning levels in conjunction with the requirement for use of artillery for base camp protection serve to inhibit its use offensively. It is believed improvement in the areas described above will gradually remove these inhibitions and result in active, aggressive support of operations by the ARVN artillery.

d. (S) Aerial Artillery Battalion. Directly related to the problem of providing artillery support for ARVN outposts and base camps was the problem of increasing the responsiveness of artillery to requests for support of operations beyond the range capabilities of US artillery. A study concluded that an aerial artillery battalion would provide the quick reaction capability required within the III Corps Tactical Zone. Employed in a general support or general support reinforcing role, the battalion could be used in a wide variety of missions. The inherent direct fire capability of the unit is provided by three firing batteries of 12 UH-1B helicopters armed with 2.75-inch rockets. In direct fire the rockets could be brought to within 50 meters of the perimeter of a beleaguered camp, outpost, or unit. In other roles the battalion could be used to provide suppressive fires on a landing zone prior to the arrival by helicopter of a tactical unit, to provide a roving counter-mortar capability, to fire on targets of opportunity, or to extend the coverage of the II FFORCEN ARTY ROI program. A request to fill this need for an aerial artillery battalion was presented to the Commanding General, II FFORCEN in April, and with the General’s concurrence was forwarded to COMUSMACV for inclusion of the aerial artillery battalion on the 1966-67 troop list for II FFORCEN.

c. (S) M102 Howitzers. Artillery organic to the 1st Air Cavalry Division, 101st Airborne Brigade and the 173rd Airborne Brigade are presently equipped with the new lightweight, M102 howitzer. A formal request for six M102 howitzers was forwarded to the Commanding General USARV on 27 March 1966. Commanding General, USARV indorsed the request to the Commander-in-Chief, US Army Pacific on 21 April 1966, recommending the howitzers be issued.
This headquarters intends to issue these howitzers to the 2d Battalion, 13th Artillery to be tested. This test will form the basis for future recommendations concerning the replacement of M101's with M102's in the rest of the 105mm howitzer units under II FFORCEN.

f. (S) Survey.

Prior to the arrival of II FFORCEN in Vietnam, only local position area survey based on map-spotted coordinates had been conducted. II FFORCEN Arty has no organic survey capability to improve this system, but coordination was established with the division artillery to insure that all surveys in base camp areas were on a common grid. Planning was also accomplished to use the Headquarters and Headquarters Battery, 2d Target Acquisition Battalion, 26th Artillery on its arrival in July 1966 to connect and verify the various surveys. This conversion to a common grid in the base camps will insure the ability to use the fires of all weapons, to exchange target information, and consequently to improve the overall accuracy of observed and H & I fires.

g. (S) Counter-mortar Radar.

The Viet Cong effectively use mortars in a distinct pattern in Vietnam. Tactics are characterized by a stealthy occupation of position, usually at night and often in unexpected areas, a delivery of a large but brief volume of fire from several directions, and a rapid displacement after concealment of the mortar. To aid in the defense against this threat, a study was made of the capabilities and requirements for the counter-mortar radar. It was found that the standard counter-mortar radar, AN/MPS-4A is effective in locating mortar positions if it is scanning in the proper direction when the attack begins. However, a major limitation of this radar is its narrow sector of scan (445 mls). A determination was made that a minimum of three radar sets is required for each semi-fixed installation such as a brigade base camp. Additional sets are required for large, highly vulnerable installations such as airfields. Based on this study, a request was made to USA RV for thirty-seven artillery detachments equipped with the AN/MPS-4A radar. These sets will be deployed to current and planned installations and should greatly improve the reaction time and accuracy of artillery in suppressing mortar attacks.

h. (S) Stationing Plan for New Artillery Units.

Preparation for the arrival of thirteen artillery units in the next year, all of which will be under the operational control of II FFORCEN Arty, demanded much of the time and effort of the staff during this period. Spread out in their arrival from June 66 to April 67 were the following units: 2d Bn, 35th Arty (155mm, SP), Headquarters and Headquarters Battery, 2d Bn, 26th Arty (F T A B), 1st Bn, 83d Arty (8", SP), 2d Bn, 11th Arty (155mm, T), 3d Bn, 3d Arty (105mm, SP), 41st Artillery Group Headquarters; and two 105mm, towed battalions, one 155mm, self-propelled battalion, one 175mm self-propelled battalion.
and four artillery searchlight batteries, as yet undesignated. Plans were initiated for the deployment of those units throughout the III Corps Tactical Zone. The considerations used in developing the stationing plan for those new units were to:

1. Extend to the maximum the artillery coverage within III Corps Tactical Zone.
2. Provide a mixture of calibers at several different locations.
3. Make available US artillery support for US and ARVN tactical operations and for support of base camps and outposts.
4. Insure adequate security for the artillery units to preclude loss or destruction of artillery materiel.
5. Provide artillery support for opening, securing, and maintaining lines of communication.

One of the units scheduled for deployment, the 3d Battalion, 3d Artillery (105mm, SP) was the subject of several command messages between CO, II FFORCEV, CG, USARV, and Department of the Army. The problem has been an attempted substitution, initiated by this headquarters, to substitute a towed 105mm battalion for the programmed self-propelled battalion for the following reasons: a towed 105mm battalion would greatly enhance the capability of II FFORCEV for providing helilifted artillery on short notice to support US and ARVN units and Special Forces camps; SP artillery cannot be moved overland as readily as can the towed weapons because of limitations on the roads and bridges in III Corps Tactical Zone. Department of the Army has stated that such a substitution would cause a delay in the deployment date of the unit. The CO, II FFORCEV in another message, dated 5 April 66 stated that in his opinion a delay caused by substitution of a towed 105mm battalion for self-propelled battalion should be short and, in the long run, would be worthwhile. This battalion (3/3) was the subject of another message sent out by Hq, II FFORCEV in an attempt to speed up the deployment of the 41st Artillery Group and the 175mm gun battalion to the Republic of Vietnam. In this message the CO, II FFORCEV stated that he would be willing to accept a reasonable delay in the deployment of the 3d Battalion, 3d Artillery (105mm, SP) and the 2d Battalion, 11th Artillery, if necessary in order to have the 41st Group and the 175mm battalion deployment dates advanced to August.

i. (S) Utilization of O-1 Aircraft

A problem which has been studied by the S-2 section is that of utilization of the O-1 aircraft. Obtaining good observation in Vietnam is a difficult problem. In much of the III Corps Tactical Zone the lack of dominant terrain, the concealment provided by jungle and heavy vegetation and the vulnerability of ground outposts all limit effective ground observation. Aerial observation has proven
to be more effective, but is restricted by the number and type aircraft available for the large area of operations. The light observation helicopters available (OH-13 and OH-23) are suitable for close-in, daylight aerial observation but lack the stamina for long-range observation and, due to a lack of instrumentation, cannot be used at night. The light fixed-wing observation plane (O-1) is highly effective. The FFORCEN Arty has coordinated with the 22 - Air, FFORCEN, in developing a practical plan for the economical use of the limited O-1 assets now available. It is considered essential that artillery groups and battalions deployed to Vietnam in the future be augmented with O-1 aircraft.

j. (c) Operation BIRMINGHAM.

BIRMINGHAM began as a search and destroy operation conducted by the 1st Infantry Division in war zone "C" north of TAY NINH. Approximately four days after the start of the operation, elements of the 25th ARVN Division and an ARVN airborne brigade were introduced in the TAY NINH area. The ARVN forces conducted their own operations in the general vicinity of but separated from the US forces. ARVN artillery consisted of one six-piece 105mm howitzer battery, one 105mm howitzer platoon (2 pieces), and one 155mm howitzer battery (4 pieces). In addition, the 3d Battalion, 319th Airborne Artillery (1 battery) of the 173d US Airborne Brigade supported the ARVN maneuver elements. To assist the 1st Div Arty, which has employed its available liaison officers elsewhere, in maintaining close coordination with the 25th ARVN Div Arty, FFORCEN Arty sent a liaison officer into the operation with the 25th ARVN Div Arty. By communicating directly with the 1st Div Arty, as well as through the FFORCEN Arty liaison officer already with 1st Div Arty, this liaison officer maintained communications between the two division artillery throughout the operation. Through this communications link, offensive artillery fires were planned between US and ARVN forces, coordination of fires effected, aircraft flights in areas of artillery firing were cleared, and information on locations of tactical elements was exchanged.

k. (c) Control of Air Space.

Significant among the activities of the Fire Support Coordination Element during the period was the task of drafting a directive on airspace coordination for the III Corps Tactical Zone.

(1) With every artillery round that is fired, the danger to our pilots and the chance of aircraft accidentally being hit is greatly increased. To resolve this problem, a directive was written by the HQ of this headquarters on the subject of airspace utilization.

(2) In effect, this directive:

Establishes air corridors between frequently visited places in III Corps Tactical Zone which are normally closed to artillery firing. At night, restrictions on artillery imposed by the corridors will be lifted.
b. Provides for pilot notification of unprogrammed fires affecting their flights by monitoring one radio channel.

c. Calls for the establishment of artillery air control centers by each commander assigned a tactical area of operational responsibility (TACOR) (brigade and equivalent size units). These control stations will act as focal points for the collection and dissemination of information on artillery firing in their respective areas.

(3) Pilots using the corridors will monitor the frequency of the appropriate air control center for warnings of unprogrammed firing.

(4) When a pilot desires to leave the corridor he will report the point of exit, destination, route, and time of exit, to the appropriate artillery air control center. The pilot will then be advised of artillery fires affecting their flights.

(5) If requested by radio, fires will be suspended as directed by the control center unless lifting of fires is precluded by a tactical emergency.

(6) Artillery firing through the corridors will be done only when prior clearance has been obtained from the Tactical Operations Center (TOC), II FFORCE, or when the firing is in response to a tactical emergency, as determined by the ground commander.

(7) Artillery air control centers, in addition to broadcasting warnings of unprogrammed fires to Army pilots, will notify the US Air Force Control and Reporting Center, located at Tan Son Nhut, of such unprogrammed fires.

(8) When a unit goes on an operation and is assigned an Area of Operation (AO) the commander will establish air corridors for the use of aircraft in the AO. Generally, the same procedures discussed above will apply to the establishment and operation of these air corridors for tactical operations.

1. (c) Metro Quality Control.

Of unusual interest in the operations section during this period was the establishment of the first corps-artillery-type metro quality control station. Within the first few weeks the three man section of II FFORCE Artillery was performing its mission of coordination, quality control, and administrative and logistics support to the four US metro sections located in the III Corps Tactical Zone. Additionally the section was preparing for the arrival of the two metro sections of the headquarters and headquarters battery, FHTB, to join the II FFORCE complex in July.
a. (c) Communications Study.

(1) Shortly after becoming operational, a study was initiated to determine what means of communications existed between US and ARVN artillery, and between Regional Forces (RF) and Popular Forces (PF), and US and ARVN artillery units. The concern was to determine whether ARVN units and isolated camps could obtain US and ARVN artillery support if and when they needed it.

(2) To obtain the information, the Communication Officer, II FFORCSV Arty, visited the US Senior Artillery Advisor at III Corps (ARVN), the artillery advisors at each of the ARVN division artillery, and the Communication Officer of each of the US division artillery.

(3) In addition, he visited the detachment commander and the Operations Officer or Communication Officer at the Special Forces "C" detachments and two of the Special Forces "B" detachments.

(4) The study concluded that:

a. There is generally good artillery communication within and between ARVN and US artillery.

b. There exists a requirement that all ARVN and US artillery fire support be cleared by appropriate Vietnamese officials down to province or district level. This restriction does not allow rapid and direct channels of communication from the fire support requestor to the artillery firing element.

c. All Special Forces detachments have excellent communications with each other and with the "C" detachment at III Corps. Artillery fire could be requested through this channel in those cases where direct communication with artillery units has not been established.

d. Out of a total of 18 Special Forces Camps six are presently within range of heavy US artillery support and direct communication has been established between those camps and US artillery units.

e. This headquarters has directed that the 23d Artillery Group develop a plan for supporting the isolated Special Forces Camps. Direct communications between these camps and the supporting artillery will be pre-arranged.

(5) II FFORCSV Arty will continue to study all communications requirements within and between fire support requestors and ARVN and US artillery firing elements and controlling agencies to provide the most expeditious communications means available.

n. (U) Command Section.

On 1 April Colonel Crittenberger was promoted to Brigadier General and on 23 April he was transferred to II FFORCSV headquarters as Chief of Staff in the absence of Brigadier General Knowles. Concurrently, Colonel Allin once again assumed command of Headquarters II FFORCSV Arty as the Acting Commander.
1. (S) The Viet Cong effectively use mortars in a distinct pattern in Vietnam as discussed in paragraph C,2,g or section I.

RECOMMENDATION:

That the requirement for 37 additional radar detachments for the III Corps area be recognized and action taken to deploy them as soon as possible. In addition, it is felt that steps should be taken to develop a countermortar radar with a wider scan that the present MPQ-4A has. If this can be done, the number of radars required could probably be reduced.

2. (S) Lack of TOE augmentation of aircraft has hampered this headquarters' ability to perform effectively in the area of liaison, intelligence, collection, and command and control. The Viet Cong's ability to interdict routes and cause damage to vehicular traffic makes it essential that the vast majority of command and staff visits be accomplished by helicopter.

RECOMMENDATION:

That Headquarters, II FORCE ARTY be augmented with an aviation section consisting of four (4) utility helicopters.

3. (C) As discussed in paragraph C,2,i, obtaining good observation in Vietnam is a difficult problem. Aerial observation has proven to be the most effective means of observing and adjusting artillery fires but this means is restricted by the number and types of aircraft available for the large area of operations.

RECOMMENDATION:

It is considered essential that artillery groups and separate battalions deployed to Vietnam in the future be augmented with two (2) O-1 fixed wing aircraft and one (1) light observation helicopter.

4. (C) During the seven months since the arrival of the first metro section in the III Corps area, there has been very little resupply of expendable items such as radiosondes, calcium hydride, calcium chloride, batteries, night lighting devices, balloons, and parachutes. The units have been directed to check on requisitions and take appropriate followup action but in the meantime they are fast approaching a non-operational condition due to a shortage of these expendable items.

RECOMMENDATION:

Command attention at all levels be given to this problem to determine what can be done to speed up issue of expendable supplies to metro sections. Furthermore, all metro sections deploying to Vietnam should be directed to bring several months supply of these expendable items with them.

SECRET
5. (U) Many projects around unit base camps must be accomplished on a "self help" basis. Tools available for this purpose are limited and are frequently unavailable.

RECOMMENDATION:

Building tools; i.e., hammers, saws, etc., are a necessity and as many as possible should accompany the unit to Vietnam.

6. (U) Experience in getting prepared for deployment of the headquarters to Vietnam indicates that one circular or pamphlet containing all of the FOR requirements for Vietnam should be prepared and issued to units alerted for Vietnam. This document could be prepared by the post, camp, or station deploying the unit and should incorporate DL, USCOMARC, and the Army requirements as well as the post, camp, or station requirements. This would save units from having to search many documents and often get conflicting information.

RECOMMENDATION:

That such a pamphlet be prepared and issued which may save time and unnecessary work and allow more time for unit training.

7. (C) There appears to be a critical shortage of school-trained radio typewriter operators, MOS 05C20 and intermediate speed radio operators, MOS 05B20. This headquarters is presently short 13 radio typewriter operators and 3 intermediate speed radio operators. This shortage has a definitely adverse impact on this headquarters' ability to operate in a mobile configuration for a sustained period of time.

RECOMMENDATION:

That action be taken to fill the radio operator vacancies existing within this unit.

8. (S) This headquarters, as the host unit for several units deploying to Vietnam, must be informed several months in advance of the unit's arrival in country of certain pertinent items of information. Some of these items are:

a. Date of arrival of advance party.
b. Date of arrival of main body.
c. Place of arrival of both groups.
d. Mode of transportation for both groups and whether or not equipment is coming separately.
e. The exact composition of the unit, i.e., augmentations or deletions from the TOE. This information is essential in order that the host unit be able to arrange for such items as land acquisition, transportation from port of debarkation, staging area, and (in the case of co-location with an ARVN unit) security and engineer work where engineer units are not immediately available. This headquarters has tried without success to obtain this information as recently as 30 April 1966 on a unit which is due to arrive in June.

RECOMMENDATION:

That host units be provided with all information necessary to make preparations for the arrival of new units in Vietnam as early as possible, but not later than four months prior to the date of arrival.

B. LESSONS LEARNED (U)

1. (U) ITEM: Units deploying overseas by air should insure that each aircraft carrying equipment is properly accompanied by several responsible persons.

DISCUSSION: Equipment loaded on an aircraft may at some point in the journey be off loaded because of a change in rate of fuel consumption or other factors leading to overloading. Each airplane should have sufficient personnel to be able to leave a responsible individual with any equipment left behind.

OBSERVATION: Equipment in transit overseas should always be accompanied by unit personnel.

2. (U) ITEM: Units deploying overseas by air should insure that each aircraft contains sufficient small arms, rations, personal gear, and tentage to provide for those individuals aboard.

DISCUSSION: Aircraft carrying a unit overseas frequently do not depart CONUS or arrive in country exactly on schedule. Additionally, unusual delays may be encountered due to weather or mechanical conditions. Consequently passengers on a particular aircraft may be forced to rely on their own resources for a number of days, either in Vietnam or in intermediate stops, and hence each aircraft should have sufficient equipment and provisions to support adequately these personnel should this situation arise.

OBSERVATION: Aircraft should contain sufficient material to support any personnel aboard for several days.
3. (C) ITEM: A mobile heli-lifted battery of howitzers can be used to extend artillery coverage for such missions as providing fire support for outlying US Special Forces Camps or ARVN outposts.

DISCUSSION: Provided with intelligence of an impending attack, or if requested to support an offensive operation, an airmobile battery of howitzers can quickly provide fire support for these camps. The following provisions should be met to insure proper execution of the operation:

a. A security force of at least two platoons should be provided and their arrival at the site should be timed so as to arrive just prior to the battery.

b. An overall commander should be designated for the operation.

c. Communications between the outpost, battery, and security force must be always maintained.

OBSERVATION: Heli-mobile operations can greatly extend the effective range of artillery. Command and communications are crucial points to the success of the operation.

4. (U) A unit deploying to RVN which does not have its equipment on the same ship with its main body of personnel should send at least one officer and an NCO on the same transportation with the equipment.

DISCUSSION: When the ship carrying the equipment is ready to unload at port it is of considerable value to have at least one person immediately available who is familiar with the loading plan and can direct an organized unloading of the equipment. At the time of unloading, priorities for the various categories of equipment may have changed from those originally planned. Additionally, those personnel who loaded the ship may not be readily available. During the voyage the personnel on the ship can not only guard the equipment but also become thoroughly familiar with the loading plan, and so be able to direct the unloading of whatever items are most critically needed.

OBSERVATION: Equipment sent by ship should always be accompanied by responsible personnel.

5. (U) ITEM: High temperature and humidity can cause electrical failures and lower operator efficiency.

DISCUSSION: High temperatures and humidity are prevalent in Vietnam. The combined heat of the day, close confines of the electrical hut, and the heat produced by the radio teletypewriter equipment will cause certain electrical components to break down and greatly reduce the operator's efficiency. These steps can be taken to prevent or at least reduce the effects of heat.

a. Provide an electrical floor fan to circulate the air in and around the equipment and operator.
b. Ensure that the normal paths for circulating air are not blocked by any extraneous material.

c. If the amount of equipment on hand allows, rotate the use of all equipment to permit a cool-down period of electrical components.

d. Position the radio rig for the best possible communications and take advantage of any shade available. If conditions permit, construct a sandbag shelter around the off-loaded electrical hut or vehicle. Allow sufficient working and air space between the equipment and walls of the bunker.

e. Provide similar shelter for the generator, but remember that the generator must have a cross flow of air or it can become overheated and damage the equipment.

OBSERVATION: All electrical equipment has a certain operating temperature range for maximum efficiency. All communicators should be aware of these desired conditions and strive to maintain reliable operating conditions for the equipment and the operator.