EVALUATION OF U.S. ARMY COMBAT OPERATIONS IN VIETNAM (U)

(SHORT TITLE: ARCOV)

VOLUME 5 — ANNEX D

COMMAND, CONTROL, AND COMMUNICATIONS

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SECRET
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ANNEX D
COMMAND, CONTROL, AND COMMUNICATIONS
Volume 5

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ANNEX D, COMMAND CONTROL AND COMMUNICATIONS

1. (C) INTRODUCTION

a. PURPOSE. The purpose of this annex is to make a comparative evaluation of the command, control, and communications aspects of the maneuver battalions of the 1st Cavalry Division, the 1st Infantry Division, the 173d Airborne Brigade, and the 1st Brigade, 101st Airborne Division; and the brigade and division echelons as they influence those aspects in the combat environment of Vietnam.

b. SCOPE. This annex is based on an evaluation of data collected for analytical study during the first three months of calendar year 1966. It incorporates material from after action reports, observers' reports, questionnaires, administrative reports, interviews with key personnel, and commanders' evaluations, and has been gathered under the combat conditions existing in Vietnam (see Section I, Volume 1).

c. OBJECTIVES

(1) Objective 1. To ascertain the comparative effectiveness and determine the significant differences between:

(a) Command and organizational framework as they influence the effectiveness of maneuver battalion operations.

(b) Division and brigade organizational framework as they influence the effectiveness of maneuver battalion operations.

(2) Objective 2. To determine if communications doctrine is adequate to insure communications support for battalion operations.

(3) Objective 3. To determine the comparative effectiveness of maneuver battalion communication systems, the impact of maneuver battalion communications on military operations, and the influence of the division and brigade communications systems on battalion operations.

d. METHODOLOGY

(1) Data Collection Technique

(a) Command, control, and communications of the four type battalions were examined during combat operations in Vietnam in responding to the objectives of this functional area evaluation. Those aspects of command, control, and communications at brigade and division levels which significantly influenced battalion operations were also evaluated.
(b) The bulk of the data was obtained by two devices:

1. Event-Oriented Questionnaires. These questionnaires were designed to obtain quantitative (and some qualitative) data on specific operations. These forms were executed by field evaluators during or immediately after operations. These questionnaires were either directed to or related to the activities of incumbents of ten positions, ranging from brigade commanders to company commanders. They contained 74 separate questions, each requiring either quantitative or qualitative responses. Many of the questions had multiple sub-questions. The number of responses received and evaluated ranged from 20 to 58 at battalion level. Many of the event-oriented questionnaires could be completed from existing records for operations occurring prior to the evaluation period. This, to a large extent, accounts for the variation in number of responses.

2. One-Time Questionnaires. These questionnaires were designed to solicit judgments from knowledgeable participants based on their experience in Vietnam. Questionnaires were directed to incumbents of seven positions ranging from division commanders to company commanders. The number of potential respondents ranged from two (division commanders) to 66 (rifle company commanders). The number responding varied; both division commanders and all brigade commanders replied, but responses from only 49 of the 66 rifle company commanders were obtained.

(c) In addition to data obtained through the use of event-oriented and one-time questionnaires, other information sources were exploited. Available after action reports were studied to identify problem areas and complete event-oriented questionnaires on past operations. Pertinent data, primarily on civil affairs and civic action, were extracted from USARV records. Personal interviews with field evaluators and officers with recent combat experience in Vietnam supplemented the qualitative data base.

(2) Analysis. Event-oriented data were used to establish operational requirements for command, control, and communications in the four type battalions. Present resources and methods of operation were evaluated with respect to these requirements to determine inadequacies. When appropriate, qualitative data were correlated with the findings of the quantitative analysis. In those areas where the judgmental consensus was in conflict with the quantitative analysis, additional data, both event-oriented and judgmental, were obtained to resolve the conflict. Primary reliance was upon event-oriented data when a combination of quantitative and judgmental data were available; however, when the data were incomplete or inconsistent and additional data could not be collected, professional judgment was applied to arbitrate the inconsistencies. The conclusions to the subordinate problem areas were aggregated to provide responses to the
essential elements of analysis and to the overall command, control, and communications objectives.

2. (c) DISCUSSION AND ANALYSIS
   a. DOCTRINE (EEA 42, 46)
      (1) General. As discussed in Appendix 1, this annex, current doctrine as embodied in field manuals, is sound. However, it requires expansion to include lessons learned in Vietnam and to emphasize tactics and techniques which have been developed and proved in operations. Current doctrine applies equally to all four types of battalions evaluated.

      (2) Control Measures. Standard battlefield control measures are used by all types of battalions in Vietnam. None of these measures when properly used was found to inhibit operations. Some differences exist among type battalions in the technique of use of the various control measures. For example, the airmobile battalions designated objectives with greater frequency than did the other type battalions. However, this was a direct result of the technique of securing landing zones on high ground and fighting "down hill". The objective, in the form of high ground, was seized early in the operation and phase lines, sectors, boundaries, and other control measures were used to control the remainder of the operation. In other type battalions, terrain objectives were designed to provide a means of orientation during search, but once the enemy was contacted, orientation was shifted to them. Moreover, when operating as an airmobile force, the other battalions used techniques similar to those used by the airmobile battalions.

      (3) ROAD Doctrine. The ability of brigades to control simultaneously a varying number of battalions engaged in diverse operations supports currently published ROAD doctrine.

      (4) Communications Doctrine.
         (a) The currently established command and administrative/logistics nets fulfill the battalions' requirements for command, control, intelligence, and service support.

         (b) The division warning net, established by communications doctrine, is unnecessary in the environment and cannot be established in the 1st Cavalry Division because of a lack of AN/GRR-5 radios in their TOE.

         (c) The Army air request net, while not established during the evaluation period, is the subject of a separate study being conducted by Headquarters, US Military Assistance Command, Vietnam.
(d) Area communications systems have not been established to date in Vietnam by divisions and brigades. As the campaign progresses, however, the establishment of this system may be required. Changes to area communications system doctrine are therefore unwarranted at this time.

b. BATTALION ORGANIZATIONAL FRAMEWORK (EKA 43).

(1) Squads, Platoons, and Rifle Companies.

(a) The size and organization of squads, Platoons, and rifle companies of all four battalions are nearly identical. The evaluation established that the weapons mix of all three echelons could be improved (See Annex C; Firepower). The changes to weapons indicated by this evaluation would, in turn, require minor changes to the organization of the weapons squads and Platoons. (See Appendix 2, this annex).

(b) The evaluation also established the desirability of placing the mess teams, currently assigned to Headquarters and Headquarters Company of all battalions, in the rifle companies in all but the airborne battalions.

(2) Rifle Strength. The rifle strength of all battalions was judged inadequate for the missions assigned in Vietnam. The requirement for these forces is fourfold: blocking forces to prevent enemy withdrawal from the area of operations, saturation patrolling of large areas to find and fix the enemy, reaction forces for maneuver and destruction of the enemy, and security for command posts and base areas. The additional rifle strength necessary in the battalion to provide these forces may be obtained in a number of ways (See paragraph 3, Section II, Volume I). It is the judgement of the evaluation team, based on operational data and analysis of the alternatives, that this additional rifle strength should be provided in the form of an additional rifle company to all four types of battalions.

(3) Combat Support Elements. The organization of each of the four battalions combat support elements differs. A description of the TOEs may be found in paragraph 2, Section II, Volume I. The major difference in the battalions, however, lies in the separate combat support company present in the airborne battalion. This company consists of a headquarters element, a reconnaissance platoon, a mortar platoon, and an anti-tank platoon. It was determined that provision of a separate combat support company organization provides advantages in command and control over those in the headquarters and headquarters company organization. Were the infantry and airborne battalions to remain organized along present lines in other respects, the establishment of a separate combat support company would increase their efficiency for operations in Vietnam.

(4) Efficient Use of Resources. All battalions made
effective use of the forces available during the evaluation. Efficiency of available forces can be improved, however, by providing commanders a battalion organization tailored for combat in Vietnam. It was determined that the anti-tank platoon was never used for its primary mission and that the reconnaissance platoon, for the most part, performed missions which could have been performed by rifle platoons. Although four rifle companies and the retention of the reconnaissance platoon would provide the advantages of additional force and flexibility, the span of control of such an organization would approach the maximum desirable. In addition, it would appear, based on past operations, that the need for an additional rifle company and the reconnaissance platoon is doubtful.

c. BATTALION STAFF ORGANIZATION (EES 44). The battalion staffs of all four types of battalions are identically organized except that there is no motor officer in the air mobile battalion. The evaluation indicated that all battalions require one officer and one enlisted assistant to coordinate civil affairs/civic action at battalion level in Vietnam. The remainder of the staff organization was considered adequate for operations in Vietnam.

d. BATTALION COMMAND FACILITIES/OPERATIONS CENTERS (EES 45). The four types of battalions used a variety of equipment for ground command facilities/operations centers. The equipment provided all battalions was considered adequate. The use of aerial command posts was required during airmobile operations and desirable during other operations.

e. BATTALION COMMUNICATIONS RESOURCES (EES 50, 51, 52).

(1) General. All four type battalions had the capability for communications by radio, wire, and messenger. (See paragraph 2, Section II, Volume 1 for communications equipment available to each battalion.)

(2) Radio Nets. All four type infantry battalions established a command net and an administrative/logistics net using FM radios. The 1st Cavalry Division's battalions also had the capability of establishing a battalion administrative/logistics net using an organic single sideband voice capability. This latter capability was rarely used because of the reliability of FM communications.

(3) TOE Radio Equipment.

(a) Rifle squads for all practical purposes had no radio. The authorized radio, AN/PRC-6, is inadequate for operations in Vietnam.

(b) Rifle platoons for all four type battalions had the same radio equipment and operated the same radio nets.
(c) The only difference in radio capabilities at company level was the lack of vehicular radios in the 1st Cavalry Division's battalions. This lack did not prove disadvantageous to these battalions under their method of operation.

(d) There were four basic differences in communications equipment at battalion level:

1. 1st Cavalry Division battalions did not have the capability for monitoring a warning broadcast net. This net, however, was not established in any of the organizations evaluated.

2. 1st Cavalry Division battalions had the capability for establishing an administrative/logistics net using single sideband voice. This capability was seldom used, however, and no other battalion indicated the requirement for such a net.

3. 1st Cavalry Division battalions did not have vehicular mounted radios for members of the staff. This lack did not prove disadvantageous, however, given their method of operation.

4. Battalions of the 173d Airborne Brigade had an additional radio-teletypewriter capability to enter a division administrative/logistics net. This advantage was not significant since the existing teletypewriter capability in all battalions was not normally used.

(4) In general, two major problems with communications equipment existed. Because most operations were finally conducted on foot, it was necessary to man-pack all equipment. There is, therefore, a requirement that all equipment be as lightweight and compact as possible. Because of the high humidity, there is a requirement that the equipment be waterproofed to preclude water leaking in or condensing inside equipment housing.

(5) Wire communications capabilities were generally comparable in the battalions. Because of the rapidity of movement, terrain and vegetation, and enemy tactics, little wire was laid. The 1st Infantry Division battalions alone had the capability for laying and recovering wire with motor-driven reels, but because wire was not used extensively over great distances, this equipment was not generally used.

(6) Message center operations were comparable in all battalions. The 1st Cavalry Division battalions had no off-line cryptographic capability; however, this equipment was not required by the battalions which had it.

f. DIVISION AND BRIGADE ORGANIZATIONAL FRAMEWORK (EBSA 47, 48, 49).

(1) Command and Control Capability. The divisional brigades proved capable of controlling a varying number of battalions. During
the operations evaluated, as many as five infantry battalions, in addition to other combat and combat support forces, were successfully controlled. The airborne brigades were fixed organizations during the evaluation period. However, since their organizational framework equals or exceeds that of divisional brigades, it is concluded that they have at least a similar capability. All brigades were successful in simultaneously controlling battalions employed in widely separated areas and engaged in diverse operations.

(2) Number of Battalions. The appropriate number of battalions to be assigned to brigades and divisions for missions in Vietnam could not be determined on the basis of data collected. Since field commanders assign missions commensurate with the forces available, or forces in accordance with the mission to be accomplished, the assignment of battalions to brigades and divisions must be based on other criteria or on military judgement.

g. DIVISION AND BRIGADE STAFF (EOA 48).

(1) It was determined that all brigades require augmentation of a civil affairs section for operations in Vietnam. Although the divisions in Vietnam have been augmented by civil affairs sections, additional personnel are needed to improve the civic action capability.

(2) The requirement for psychological warfare personnel at brigade and division is being marginally satisfied by attachment of teams from a psychological warfare company. Assigned personnel are required at divisional level to coordinate this effort.

(3) It was determined that extensive augmentation of the staff of a divisional brigade is required to enable it to be employed as a separate brigade in sustained combat. The majority of this augmentation is necessary to plan for future operations and to coordinate service support. The separate airborne brigade staff also requires augmentation of service support and administrative personnel for planning in sustained combat.

h. COMMUNICATIONS RESOURCES AT DIVISIONS AND BRIGADES (EOA 50, 51, 52)

(1) Divisions and brigades were able to communicate with battalions when required. The substitution of some equipment at brigade level in the infantry and airborne brigades is desirable to allow greater mobility for operations in Vietnam.

(2) As mentioned in paragraph 2a(3) above, brigades and divisions did not establish the warning net, the air request net, or an area communications system. This resulted in the lack of use of some equipment.

(3) The availability within the 1st Cavalry Division of
CV-2 aircraft with six channel retransmission equipment created a unique advantage to their subordinate units. When operating over extended distances, it enabled the battalions and brigades to communicate rapidly through this automatic system without the use of manual relay. The other organizations, however, did not state a requirement for similar equipment.

1. EVALUATION MATRIX.

A matrix is provided in Figure D-1 which indicates the problem areas in command, control, and communications described above and references the NCA under which more complete discussion is provided.

4. (S) CONCLUSIONS.

a. DOCTRINE.

(1) Current doctrine is generally sound but should be expanded to include lessons learned in Vietnam.

(2) The same standard battlefield control measures were used by all types of maneuver battalions and brigades.

(3) None of the standard battlefield control measures, when properly selected, unduly inhibits the operations of any maneuver battalion in this environment.

(4) The ability of brigades to control a varying number of battalions engaged in diverse operations supports currently published ROAC doctrine.

(5) The current command and administrative/logistics nets fulfill the battalions' communications requirements for command and control for service support.

(6) The battalions and brigades do not require a separate intelligence net.

b. MATERIAL.

(1) Some communications equipment for command facilities/operations centers is too bulky and heavy for efficient use in the environment of Vietnam.

(2) The shelters, generators, and information storage equipment provided each type battalion are adequate.

(3) The transportation available to move command facilities/operations centers during operations is adequate.

(4) Airborne command posts were used extensively during operations by all four types of battalions.

(5) Airborne command posts are required during airborne operations and desirable during all types of operations to facilitate command and control.
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SUMMARY

- Major Problem Area
- No Significant Problem Area

Figure D.1

Evaluation
- Doctrine
- Battalion Organization
- Battalion Staff Organization
- Battalion Command
- Facilities/Operations Center
- Battalion Communications
- Resources
- Division and Brigade Organization
- Division and Brigade Staff Organization
- Division and Brigade Communications
- Resources

SUMMARY
(6) The restricted endurance of aerial command posts was a limiting factor during 20 percent of operations evaluated.

(7) Radio set, AN/PRC-6, is inadequate for operations in Vietnam.


(9) The deficiency which causes the transmitter, T-195, to overheat seriously limits the use of radio sets equipped with this transmitter.

(10) A compact, lightweight speaker is required for use with radio set, AN/PRC-25, on footmobile operations.

(11) The antenna, RC-271, used with radio set, AN/PRC-25, impedes movement in jungle and is a signature item.

(12) The signal unit, TA-207, of switchboard, SB-86, requires improvement to prevent humidity from causing the supervisory signals to stick.

(13) A lightweight, ground-plane antenna is needed to replace antenna, RC-292.

(14) A portable power amplifier is needed to increase the range of radio set, AN/PRC-25.

(15) A lightweight, reliable, single-sideband radio is required which can be operated on a vehicle or carried by one man and which permits operation during movement.

(16) The number of types of switchboards and telephones at company level are adequate for this environment.

(17) Battalions have adequate capability to communicate with adjacent battalions, including allied battalions.

(18) Aerial relay/retransmission capability is required for communications during operations in Vietnam.

(19) Radio-teletypewriter capability is not required at battalion level in Vietnam.

(20) The AN/GRR-5 radios authorized battalions are not required for operations in Vietnam.

(21) Wire communication is rarely established between company and battalion. The amount of cable, WD-1, in the infantry battalion communications platoon can be reduced by half.
(22) Reel units, RC-172, in the 1st Infantry Division battalions are excess to requirements.

(23) Cryptographic security equipment is not required at battalion level.

(24) A lightweight speech scrambler system for radio communications from battalion to brigade is desirable.

c. ORGANIZATION.

(1) The size and organization of the present rifle squad is adequate.

(2) The weapons squad organization is inappropriate in view of recommended weapons changes. The required organization is one squad leader and three machine gun sections of three men each.

(3) The size and organization of the rifle platoon is adequate.

(4) The size and organization of the weapons platoon requires change in view of recommended weapons change.

(5) The size and organization of the rifle company is adequate; however, mess teams should be assigned to rifle companies of airborne and infantry battalions for morale reasons.

(6) The anti-tank platoon having not been used for the purpose for which it was organized, can be reduced.

(7) The majority of missions performed by reconnaissance platoons in Vietnam were the same as those normally performed by rifle platoons.

(8) The size and organization of the heavy mortar platoon is adequate.

(9) In battalions having three rifle companies, command and control of battalion combat support elements is facilitated by separating combat support elements and headquarters and service elements into a combat support support company and a headquarters and headquarters company.

(10) A fourth rifle company is required for efficient combat operations in Vietnam.

(11) Battalions have sufficient messenger capability to meet their requirements for a delivery of documents which cannot be electrically transmitted.
(12) The staff organization of the four type infantry battalions was inadequate to properly plan and supervise civil affairs and civic action, both on tactical operations and in the TAOR. Otherwise, battalion staffs were adequate for operations in Vietnam.

(13) The system for obtaining and directing Air Force close air support is timely and effective, largely through the extensive employment of Air Force airborne forward air controllers.

(14) The command facilities/operations centers were responsive to requirements to move on short notice.

(15) Aerial command posts for battalion commanders are required during airmobile operations and desirable during all other operations to facilities command and control.

(16) All brigades have the capability to control a varying number of maneuver battalions.

(17) All brigades have the capability to control battalions engaged in diverse operations in separated areas.

(18) Both the separate airborne brigade and the divisional airborne brigade require augmentation for sustained operations in Vietnam.

(19) The organizational structure of the separate airborne brigade provides a better capability to control a varying number of battalions than does the divisional airborne brigade without augmentation.

(20) Data did not reveal any case where the number of battalions assigned to a brigade was insufficient for the mission.

(21) Divisions and separate brigades have performed missions in Vietnam that were not in their TOE statements of capability. These missions have required augmentation to the units.

(22) The S5 capability of brigades, both separate and divisional, is inadequate to satisfy the requirements for civil affairs and civic action.

(24) The system of attachment of psychological warfare teams to divisions and brigades as required is marginally adequate.
5. (3) RECOMMENDATIONS

a. DOCTRINE.

(1) Current doctrine be examined for deficiencies and expanded to include lessons learned in Vietnam. This expansion should include, but not be limited to, the doctrinal guidance contained in Appendix I of this annex.

b. MATERIAL.

(1) Aerial command posts be made available to battalion commanders during all types of operations.

(2) A compact, lightweight radio with a range of three to five kilometers be developed to replace radio set, AN/PRC-6.

(3) Handset, H-138, be replaced by a more compact, moisture resistant handset that can be clamped to the user's uniform.

(4) A compact, lightweight speaker for use with radio set, AN/PRC-25 be developed.

(5) Power amplifier, AM-4306, be made available to battalions in Vietnam as soon as possible.

(6) A durable antenna that conforms to the body of the radio operator be developed as a replacement for the RC-271.

(7) All vehicular FM radios in the infantry battalions be replaced by radio set, AN/GRC-125, in conjunction with the issue of power amplifier, AM-4306.

(8) Switchboard, SB-86, be improved or replaced by a more reliable field switchboard.

(9) A lightweight speech scrambler system for radio communications from battalion to brigade be developed.

(10) A lightweight ground-plane antenna be developed to replace the RC-292.

(11) A lightweight, reliable, single sideband radio be developed which can be operated during foot and vehicular movement.

(12) The equipment deletions, additions and modifications contained in the recommended MTES's, (see Annex H, Recommended MTES's), be implemented.

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(13) The communications equipment of brigades and divisions be analyzed to determine the specific equipment that can be deleted or replaced after action is taken on battalion equipment recommendations.

c. ORGANIZATION.

(1) The proposed MTOE's for all four type battalions (see Annex H, Recommended MTOE's) be implemented.

(2) Brigades, both divisional and separate, be augmented by an S5 staff section consisting of, as a minimum:

1 - Major, S5
1 - Captain, Assistant S5
1 - E-7, Administrative Supervisor
2 - E-4, Clerk/typists
2 - E-3, Driver/radio operators

(3) Divisions be augmented by a G5 staff section consisting of, as a minimum:

1 - Lt Colonel, G5
1 - Major, Assistant G5
1 - Captain, Civil Affairs
1 - E-7, Administrative Supervisor
2 - E-4, Clerk/typists
3 - E-3, Driver/radio operators
Appendix 1 to Annex D (Command, Control, and Communications)

EEA 42: Is the current doctrine pertaining to the type operations being conducted usable and valid?

1. (C) COMMANDERS' OPINION

   Toward the end of the evaluation period, brigade and battalion commanders and operations officers were asked to comment on the adequacy and validity of current command, control and communications doctrine and to recommend changes thereto. All five of the brigades responding felt that command, control and communications doctrine was valid. One brigade commander felt that the use of command helicopters for operations should be included in doctrine. Another commented on the inadequacy of command and control personnel and equipment to operate both a permanent base camp and a field base.

   Of the 18 battalion commanders or operations officers responding, only three felt that command, control or communications doctrine was inadequate. They cited the following reasons:

   a. More emphasis must be placed on flexibility; forces must orient on the enemy rather than terrain.

   b. Emphasis must be placed on independent operations by small units (down to platoon size) in widespread areas of operation.

   c. Operations in this environment often require the establishment of forward brigade base areas. This, in turn, makes it necessary for the brigade headquarters, normally considered to be only tactical in nature, to assume increased administrative and logistical planning and execution functions.

   d. The frequent use of airmobile operations by all types of units, coupled with the deployment of forces over large areas, requires extensive use of airborne command posts to successfully control operations.

2. (C) ANALYSIS

   a. An analysis of operational data gathered during the evaluation indicates that comments of commanders and operations officers are valid with the exception of the need for additional personnel and equipment for base camp operation.

   b. Other doctrinal areas were found to be inadequate by the evaluation team. The extensive use of airmobile operations in this environment warrants the expansion of doctrine and techniques of these type operations in the following manuals:

   D-1-1 EEA 42
(1) FM 61-100 The Division
(2) FM 7-30 Infantry, Airborne and Mechanized Division Brigades
(3) FM 7-20 Infantry, Airborne and Mechanized Division
   Battalions
(4) FM 7-15 Rifle Platoon and Squads, Infantry, Airborne and
   Mechanized

   c. FM 31-15, Operations Against Irregular Forces, needs extensive
   revision:

   (1) Paragraph 11, Cold War Situations, should be expanded
       into a chapter or section to discuss the problems and techniques of
       coordination with governmental civil and military forces when operating
       against irregular forces in a sovereign friendly country.

   (2) Paragraph 15, Civic Action, states "Military commanders
       are encouraged to participate in local civic action projects wherever
       such participation does not seriously detract from accomplishment of
       their primary mission." This concept should be expanded upon and the
       importance of civic action as a part of the overall mission should be
       discussed.

   (3) A more complete description of search and destroy, clearing
       and route and area security missions as presently being conducted in Vietnam
       should be included in Section V, Combat Operations.

   (4) Reference to "battlegroup size" forces should be changed
       to "brigade size" forces or deleted, as appropriate, throughout the manual.

   (5) Inclusion of airmobile forces and their peculiar advantages
       in this environment should be explained in Chapter 3, Organization and
       Employment of Forces.

   (6) Emphasis on Search and Destroy type missions rather than
       reaction forces should be made in Chapter 3, Organization and Employment
       of Forces.

   d. The following terms, used extensively in Vietnam, should be
      incorporated into doctrine in the appropriate manuals.

      1) Tactical area of responsibility (TAOR)
      2) Area of Operations (AO)
      3) Search and Destroy
      4) Clearing
5) Securing

   e. Appropriate manuals should include detailed descriptions of deployment of battalion forces for operations in this environment. The standard battlefield control measures applicable in deploying blocking and searching forces should be stressed in these descriptions to preclude possible misorientation of the force or improper selection of control measures (see Appendix 5, this Annex).

   f. Warning nets are unnecessary in Vietnam. Consideration should be given to deleting the warning net requirement for units conducting low intensity warfare.

3. (U) CONCLUSION

   Current doctrine is generally sound but should be expanded and emphasized using lessons learned in Vietnam.
Appendix 2 to Annex D (Command, Control, and Communications)

EEA 43: Does the existing organizational framework of the maneuver battalion require modification to improve its total capabilities for the execution of the various type missions?

1. (U) GENERAL

The existing organizational framework of each type maneuver battalion requires change to improve its total capabilities for operations in this environment. The analysis and discussion of the majority of these changes is contained in this appendix. Staff adequacy is discussed separately in Appendix 3 of this annex.

2. (C) RIFLE COMPANY

a. RIFLE SQUAD. There was unanimous agreement among commanders of all four types of battalions that the present size (10 men) of the rifle squad was adequate. Only one battalion commander desired to reorganize the rifle squad. He recommended placing the two fire teams under control of a squad leader and assistant squad leader, thus eliminating the fire team chiefs and balancing the number of men in each team. Operational data gathered during the evaluation did not reveal any problems arising from the size or organization of the present squad.

b. WEAPONS SQUAD. The size and organization of the weapons squad should be based on its mission and on the number and type of weapons with which it is equipped. More than 70 percent of the battalion commanders of the units evaluated expressed dissatisfaction with the weapons mix of the present weapons squad. The ranges of engagement normally encountered and the high volume of fire required upon engagement led to the conclusion that the weapons squad should have three M60 machine guns. (See Appendix 2, Annex C). The squad would consist of a squad leader, three gunners, three assistant gunners, and three ammunition bearers.

c. RIFLE PLATOON. Commanders' opinions and operational data disclosed no need for change in platoon headquarters or in the number of rifle and weapons squads organic to the platoon.

d. WEAPONS PLATOON. The size and organization of the weapons platoon should be based on its mission and on the number and types of weapons with which it is equipped. Although battalion commanders expressed satisfaction with the size and organization of the present platoon, 80 percent did not like the available weapons mix. As a result of this opinion, an analysis was made of target descriptions, frequency of occurrence, and weapons characteristics to arrive at the
best weapons mix for this platoon. The analysis led to the conclusion that the weapons platoon should be equipped with three 81mm mortars. (See Appendix 2, Annex C.) This weapons platoon, actually an 81mm mortar platoon, should be organized as follows:

**Platoon Headquarters**

1 Lt Platoon Leader  
1 E-7 Platoon Sergeant  
3 E-5 Forward Observers  
2 E-5 Fire Direction Computers  
1 E-4 Radio-Telephone Operator

**81mm Mortar Squads (3)**

1 E-5 Squad Leader  
1 E-4 Gunner  
3 E-3 Ammunition Bearers  
1 E-3 Assistant Gunner

e. RIFLE COMPANY. Only two of the 21 battalion commanders recommended a change in the organization of the rifle company. Both of these commanders desired an additional rifle platoon. All other commanders were satisfied with the size and organization of the rifle company, assuming a change took place in the weapons mix. Data gathered during operations indicated a need for increased strength at company level in less than five percent of the operations.

3. (C) HEADQUARTERS AND HEADQUARTERS COMPANY AND COMBAT SUPPORT COMPANY

a. COMBAT AND COMBAT SUPPORT ELEMENTS.

(1) Anti-tank Platoon. The anti-tank platoons of the four type battalions are organized differently. In addition to a platoon headquarters, the 1st Infantry Division battalions are authorized three ENTAC squads of four men each; the 173rd Airborne Brigade battalions are authorized six ENTAC squads of five men each, the 1st Brigade, 101st Airborne Division battalions are authorized six 106mm recoilless rifle squads of four men each, and the 1st Cavalry Division battalions are authorized four 106mm recoilless rifle squads of seven men each. The ENTAC has not been used in Vietnam. Data on actual usage of the 106mm recoilless rifle contained in Appendix 2, Annex C, indicate that battalions normally carry few of their 106mm recoilless rifles on operations and seldom fire those they take. The varied missions performed by the anti-tank platoons during the operations evaluated follow:
MISSIONS PERFORMED BY ANTI-TANK PLATOONS

<table>
<thead>
<tr>
<th>MISSION</th>
<th>1st Inf Div (19)</th>
<th>73d Abn Bde (8)</th>
<th>1st Bde 101 Abn Bde (4)</th>
<th>1st Cav Div (12)</th>
<th>Total Operation Mission Assigned</th>
<th>Percent Operation Mission Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search &amp; Destroy</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Reserve/Reaction</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Bn CP &amp; Base Security</td>
<td>12</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>27</td>
<td>63</td>
</tr>
<tr>
<td>Bde CP &amp; Base Security</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Demolition Teams</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Reconnaissance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

1/ Number of battalion operations the mission was assigned to the anti-tank platoon.
2/ Number of operations documented during evaluation.

(2) Reconnaissance Platoon

(a) Each of the reconnaissance platoons in the four types of battalions evaluated differs in organization. The organization charts for these platoons follow:

1st Infantry Division (TOE 7-16E)

```plaintext
1st Infantry Division (TOE 7-16E)

Battalion Reconnaissance Platoon

- 0-1
  - EM-31
    - Platoon Headquarters
    - Scout Section
    - Tank Section
    - Rifle Squad

0-1
  - EM-12
  - EM-8
  - EM-10

D-2-3

BDA 43
```
(b) The ground surveillance section, which appears as a separate section in all battalions except those organized under TOE 7-36F, is discussed in Annex A. The missions assigned the reconnaissance platoon during operations varied. During more than two-thirds of the operations evaluated, the reconnaissance platoon had multiple missions to perform. The missions assigned during 51 battalion operations evaluated are shown in Figure D2-1.

(c) An analysis of the data contained in Figure D2-1 reveals the following points:

1. On 31 of 51 operations (61 percent), the reconnaissance platoon was not used for reconnaissance, screening, patrolling, or convoy escort.

2. During the 39 percent of operations on which those type missions were performed, it was the sole mission only three times (5.7 percent). It was performed in conjunction with one other mission 19.6 percent of all operations and in conjunction with two or more other missions 13.7 percent of all operations.

3. Search and destroy type missions were assigned the reconnaissance platoon during 30 of the 51 operations. It was the sole mission six times; in conjunction with reconnaissance, patrolling, screening or route security nine times; and in conjunction with other type missions 15 times.

4. The reconnaissance platoon provided security for brigade or battalion during 35 of 51 operations (69 percent). During 13 of these operations, security was provided in conjunction with patrolling, reconnaissance, screening, or convoy escort.
### MISSIONS ASSIGNED

<table>
<thead>
<tr>
<th>MISSION</th>
<th>1st Inf Div</th>
<th>173d Abn Div</th>
<th>1 Bde Abn Div</th>
<th>1st Cav Div</th>
<th>Total Operations Mission Assigned</th>
<th>Percent Operations Mission Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search &amp; Destroy (S&amp;D)</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>11.8</td>
</tr>
<tr>
<td>Reserve/Reaction (R/R)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Bn Security (Bn Sec)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>Bde Security (Bde Sec)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>Reconnaissance, Screening, Long Range Patrol, Convoy Escort</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5.9</td>
</tr>
</tbody>
</table>

**TOTAL SINGLE MISSIONS** 5 4 1 4 14 27.5

<table>
<thead>
<tr>
<th>MISSION</th>
<th>1st Inf Div</th>
<th>173d Abn Div</th>
<th>1 Bde Abn Div</th>
<th>1st Cav Div</th>
<th>Total Operations Mission Assigned</th>
<th>Percent Operations Mission Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>S &amp; D + R/R</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>S &amp; D + Bn Sec</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>11</td>
<td>21.6</td>
</tr>
<tr>
<td>S &amp; D + Recon</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>7.8</td>
</tr>
<tr>
<td>R/R + Bn Sec</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>9.8</td>
</tr>
<tr>
<td>Bn Sec + Recon</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>11.8</td>
</tr>
</tbody>
</table>

**TOTAL DOUBLE MISSIONS** 11 6 3 8 28 54.9

<table>
<thead>
<tr>
<th>MISSION</th>
<th>1st Inf Div</th>
<th>173d Abn Div</th>
<th>1 Bde Abn Div</th>
<th>1st Cav Div</th>
<th>Total Operations Mission Assigned</th>
<th>Percent Operations Mission Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>S &amp; D + R/R + Bn Sec</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>R/R + Bn Sec + Recon</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>S &amp; D + Bn Sec + Recon</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>7.8</td>
</tr>
<tr>
<td>S&amp;D + R/R + Bn Sec + Recon</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**TOTAL MULTIPLE MISSIONS** 3 1 0 5 9 17.6

**FIGURE D2-1.** Missions assigned to reconnaissance platoons.
5. The following chart depicts the frequency with which major missions were assigned:

### MISSIONS ASSIGNED TO RECONNAISSANCE PLATOONS
**(INCLUDES ASSIGNMENT OF MULTIPLE MISSIONS)**

<table>
<thead>
<tr>
<th>MISSIONS</th>
<th>UNIT</th>
<th>1st Inf Div</th>
<th>17th Inf Div</th>
<th>101st Abn Div</th>
<th>1st Cav Div</th>
<th>Total Operations</th>
<th>Percent of Operations Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search &amp; Destroy</td>
<td></td>
<td>5</td>
<td>8</td>
<td>2</td>
<td>14</td>
<td>30</td>
<td>57</td>
</tr>
<tr>
<td>(Includes Blocking)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserve/Reaction</td>
<td></td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Battalion CP &amp; Base Security</td>
<td></td>
<td>14</td>
<td>2</td>
<td>2</td>
<td>11</td>
<td>29</td>
<td>57</td>
</tr>
<tr>
<td>Recon, Patrolling</td>
<td></td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Screening, Convoy Escort</td>
<td></td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>20</td>
<td>39</td>
</tr>
</tbody>
</table>

1/ Number of operations the mission was assigned to the reconnaissance platoon.

2/ Number of operations documented during evaluation.

(3) Mortar Platoons.

(a) The mortar platoons of the four types of battalions are similar in organization. The 1st Cavalry Division battalions are equipped with 81mm mortars while the remaining battalions are equipped with 4.2" mortars. The analysis of weapon use is contained in Appendix 2, Annex C. This analysis concluded that no change in organization of this platoon is warranted.

(b) The missions of the mortar platoons during operations evaluated are shown below. As indicated by the percentages, multiple missions were often assigned:
MISSIONS PERFORMED BY BATTALION HEAVY MORTAR PLATOON

<table>
<thead>
<tr>
<th>MISSION</th>
<th>UNITS</th>
<th>1/</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st Inf 173d</td>
<td>1st Bde 10th Abn</td>
<td>1st Cav Div</td>
<td>No. Bn Ops Mission Performed</td>
</tr>
<tr>
<td>General Support</td>
<td>13 7 5</td>
<td>11 36 82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Camp Security</td>
<td>12 0 1</td>
<td>2 15 34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battalion CP Security</td>
<td>2 6 1</td>
<td>1 10 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search &amp; Destroy</td>
<td>0 2 0</td>
<td>0 2 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/ Number battalion operations the mission was performed by the mortar platoon.

2/ Number of operations documented during evaluation.

b. OTHER BATTALION ELEMENTS.

(1) Ground Surveillance Section. See Appendix 6, Annex A.

(2) Battalion Communications Platoon. An evaluation of all communications personnel in the four type battalions indicated that efficiency could be increased by placing the communications personnel now assigned to the operations section into the communications platoon. No operational data were gathered to support this finding, however.

(3) Battalion Support (Service) Platoon.

(a) Mess Section. Rifle company commanders were asked where the mess sections should be assigned and to give the reasons for their recommendations. In the 1st Cavalry Division, the majority of the company commanders responding (eight of 12) favored the current consolidated mess section at battalion. The primary reason given was that rifle companies could not control their mess teams during operations. The availability of helicopters to deliver rations, the frequent moves made, and the inability to split the present mess section of 21 men into the required number of company mess teams all support the present organization of messes in the 1st Cavalry Division. In the other three type battalions, 23 of the 25 rifle company commanders responding desired that mess teams be assigned to the rifle companies. The major reasons given were better administration and control (50 percent) and higher morale (40 percent).
At the present time, the mess sections of these units are normally attached to the separate companies both in base camp and on operations. The mess sections of these battalions are designed to be split into teams, one for each company. It is the judgment of the evaluation team that the assignment of mess teams to each company in infantry and airborne infantry battalions, in accordance with the company commanders' desires, is justified for morale and administrative reasons.

(b) Transportation and Supply Sections. Discussion of these sections and their operations is contained in Annex E. Although data indicate a need for two additional personnel in the supply sections, no substantial change to size or organization of these sections was indicated.

(4) Battalion Maintenance and Medical Platoons. The discussion of these platoons is contained in Annex E. No change in size or organization of these platoons was indicated during the evaluation.

c. COMMAND AND CONTROL OF COMBAT SUPPORT ELEMENTS.

(1) General. A major difference exists in the combat support organization of the four type battalions evaluated. The 1st Cavalry Division battalions have a separate combat support company to control the anti-tank, reconnaissance, and mortar platoons, while the other battalions have these platoons assigned to headquarters and headquarters company.

(2) Command and Control in the 1st Cavalry Division.

(a) From information gathered from battalion operations officers during 11 operations, it was determined that all combat support elements were under control of the combat support company commander nine times. On the remaining two occasions, a platoon operated at a considerable distance from the remainder of the company and control was assumed by the unit it supported.

(b) Commenting on 22 operations, battalion executive officers found only advantages in the existence of a separate combat support company. Those cited most often were:

1. Provided separate commanders for totally different missions of combat support and combat service support.

2. Provided separate commanders for two elements which were normally widely scattered during operations.

3. Decreased the battalion commander's span of control by enabling him to deal with one commander for all aspects.
of organic combat support.

4. Allowed increased flexibility by providing a commander and other control elements for a fourth maneuver element if required.

(3) Other Battalions.

(a) Responses gathered from battalion operations officers during 27 battalion operations of the 1st Infantry Division, 173d Airborne Brigade, and 1st Brigade, 101st Airborne Division, indicated that command and control of the combat support elements of these units varied. During approximately one-third of these operations, the headquarters company commander controlled these platoons; during the remaining two-thirds, control was exercised either by the separate platoon leaders or a battalion staff officer.

(b) The executive officers of these battalions were asked to comment on the advantages and disadvantages of having a single commander for both headquarters and combat support elements. Responses were given for 30 operations, 16 by 1st Infantry Division battalion executive officers, nine by those of the 173d Brigade battalions, and five by those of the 1st Brigade, 101st Airborne Division. Advantages were cited during six operations, five in the 1st Infantry Division, and one in the 1st Brigade, 101st Airborne Division. The advantages listed were as follows:

1. Provided unity of command and simplified control.
2. Provided faster reaction to commander's desires.
3. Facilitated administrative support.
4. Required less detailed planning.

(c) Disadvantages were cited during 10 of the 30 operations; five in the 1st Infantry Division, four in the 173d Airborne Brigade, and one in the 1st Brigade, 101st Airborne Division. All those listed fell into two categories:

1. Elements of the company were always split between two locations and often among three or four. The separation of these elements precluded effective control by a single commander.
2. The two basic functions of company personnel (combat support and combat service support) created a major division of the company commander's attention.
4.  (C) INFANTRY BATTALIONS  

a. COMPARISON OF SIZE OF UNITS USED IN AIRMObILE OPERATIONS.  

(1) Data to indicate the size force required for specific missions below battalion level could not be obtained. Areas of operation were examined for 14 battalion sized search and destroy operations. Seven of these operations were ground mobile and seven were airmobile. The airmobile operations included two conducted by 173d Airborne Brigade battalions, and five conducted by 1st Cavalry Division battalions.  

(2) The average length of the ground mobile operations was 19 days. During the course of the operations, the average area covered was approximately 38 square kilometers. The average airmobile operation lasted 10 days and covered 95 square kilometers.  

(3) Other measures of effectiveness which apply to this question could not be obtained. For example, it could not be determined how thoroughly battalions were able to cover the areas. Similarly, it was not possible to analyze the effects of the size of the enemy force in the area or of the weather and terrain.  

b. SECURITY REQUIREMENTS.  

(1) Security requirements differed widely among the four battalions evaluated, particularly with respect to base camp security and the defense of adjacent airfields and other installations.  

(2) In addition to base camp security, the battalions of all units were tasked to provide security to brigade command posts and advanced supply bases during operations. The table below shows the average number of personnel drawn from the rifle companies, anti-tank platoons, reconnaissance platoons, and mortar platoons for this purpose. The units actually used ranged in size from squads to entire battalions. The figures listed do not include additional numbers of cooks, clerks, communications, maintenance, and supply personnel who were also frequently used for security. The average strength is based on all operations evaluated.
AVERAGE NUMBER OF BATTALION COMBAT PERSONNEL USED TO PROVIDE SECURITY FOR BRIGADE CP AND BASE AREAS DURING OPERATIONS

<table>
<thead>
<tr>
<th>Battalions of:</th>
<th>Operations Evaluated</th>
<th>Operations Security Provided</th>
<th>Average Number Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Inf Div</td>
<td>18</td>
<td>10</td>
<td>45</td>
</tr>
<tr>
<td>173d Abn Bde</td>
<td>6</td>
<td>5</td>
<td>43</td>
</tr>
<tr>
<td>1st Cav Div</td>
<td>13</td>
<td>5</td>
<td>120</td>
</tr>
<tr>
<td>1st Bde, 101st Abn Div</td>
<td>5</td>
<td>1</td>
<td>36</td>
</tr>
</tbody>
</table>

(3) The number of combat personnel used to provide security for the battalion command post and advance base areas was likewise determined. As before, communications, maintenance, supply, mess, and clerical personnel were excluded from the computation. Only those elements used during daylight hours were considered since much larger numbers of combat troops were normally employed at night for perimeter defense.

* This average is based on all operations evaluated, not just for those where security was provided.

(4) In the 1st Infantry Division and the 173d Airborne Brigade, the security for battalion command posts and base areas was normally drawn from all assigned companies; in the 1st Brigade, 101st Airborne Division, the security force varied from a platoon to a company drawn from varying sources; and in the 1st Cavalry Division, the combat support companies were normally used for security although generally they also had other missions. During the two operations in
which battalions did not provide combat elements for their command post and base area security, such security was provided by a sister battalion or by Vietnamese units.

**c. ADDITIONAL MANEUVER ELEMENTS.**

(1) Formation of Additional Maneuver Elements on Operations. Battalions actually formed an additional rifle maneuver element during approximately one-half of the operations evaluated. The statistics for these formations follow:

**ADDITIONAL RIFLE MANEUVER ELEMENTS FORMED**

<table>
<thead>
<tr>
<th></th>
<th>1st Inf Div</th>
<th>173d Abn Bde</th>
<th>1st Bde 101st Abn Div</th>
<th>1st Cav Div</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Evaluated</td>
<td>18</td>
<td>11</td>
<td>4</td>
<td>19</td>
<td>52</td>
</tr>
<tr>
<td>Operations Additional Element Formed</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td>11</td>
<td>27</td>
</tr>
<tr>
<td>Percent of Operations Element Formed</td>
<td>22%</td>
<td>91%</td>
<td>50%</td>
<td>58%</td>
<td>52%</td>
</tr>
<tr>
<td>Average Strength of Additional Element</td>
<td>65</td>
<td>80</td>
<td>75</td>
<td>60</td>
<td>69</td>
</tr>
</tbody>
</table>

In the 1st Infantry Division battalions, the size of this maneuver element ranged from the reinforced reconnaissance platoon of 35 men to a combination of all three weapons platoons from the rifle companies totalling 90 men. In the 173d Airborne Brigade, this element varied from a 60-man force from the reconnaissance and anti-tank platoons to 110 men from all combat support platoons. The 1st Cavalry Division battalions fielded maneuver elements ranging in size from 33 men (reinforced reconnaissance platoon) to 90 men (all three platoons from the combat support company). The 1st Brigade, 101st Airborne Division, combined the anti-tank and reconnaissance platoons for a 50-man force during one operation and, on another, added the mortar platoon and three weapons squads to that force to bring the total strength to 100. The composition of additional maneuver elements formed is shown below:
COMPOSITION OF ADDITIONAL MANEUVER ELEMENTS

<table>
<thead>
<tr>
<th>UNIT 2/</th>
<th>1st Inf Inf</th>
<th>173d Abn Div</th>
<th>1st Bde</th>
<th>1st 101st Abn Div</th>
<th>1st Cav</th>
<th>Total No Ops</th>
<th>Percent of Bn Operations Unit was a Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconnaissance Platoon</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>9</td>
<td>23</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>Anti-tank Platoon</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>17</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td>Heavy Mortar Platoon</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Ground Surveillance Section</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Weapons Platoons or Squads From Rifle Companies</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Attached Units</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>

1/ Number of operations observed during evaluation.

2/ Number of battalion operations unit was a component of an additional maneuver element.

The primary missions assigned to the additional rifle elements that were actually formed fell into four categories:

MISSIONS ASSIGNED ADDITIONAL MANEUVER ELEMENTS (INCLUDES ASSIGNMENT OF MULTIPLE MISSIONS)

<table>
<thead>
<tr>
<th>UNIT 2/</th>
<th>1st Inf Inf</th>
<th>173d Abn Div</th>
<th>1st Bde</th>
<th>1st 101st Abn Div</th>
<th>1st Cav</th>
<th>Total En Operations Missions Assigned</th>
<th>Percent Operations Missions Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missions Assigned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search &amp; Destroy</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>13</td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>Blocking</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>10</td>
<td>22</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>Reserve/Reaction</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

1/ Number of battalion operations mission was assigned.

2/ Number of operations an additional maneuver element was formed.
(2) Operational Requirements for Additional Maneuver Elements.

(a) Battalion commanders were asked if a fourth rifle company would have aided in the accomplishment of their mission for each operation and, if so, how they would have employed the unit. Responses were to be given without consideration of whether or not they had actually formed another maneuver element.

**OPERATIONAL REQUIREMENT FOR A FOURTH RIFLE ELEMENT**

<table>
<thead>
<tr>
<th>Battalions of:</th>
<th>Operations 4th Company Would Have Aided</th>
<th>Search &amp; Destroy</th>
<th>Blocking</th>
<th>Reserve/Reaction</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Inf Div</td>
<td>18</td>
<td>8</td>
<td>50</td>
<td>12</td>
<td>38</td>
</tr>
<tr>
<td>173d Abn Bde</td>
<td>11</td>
<td>11</td>
<td>91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Cav Div</td>
<td>20</td>
<td>18</td>
<td>85</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>1st Bde,</td>
<td>4</td>
<td>3</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) Each of the type battalions evaluated has three rifle companies authorized by TOE. Early in the evaluation, battalion commanders were asked to comment on the adequacy of three rifle companies to perform assigned missions. Responses to this question are tabulated below:

**PERCENT OF BATTALION COMMANDERS INDICATING A NEED FOR A FOURTH RIFLE COMPANY BY TYPE OPERATION**

<table>
<thead>
<tr>
<th>Battalions of:</th>
<th>Search &amp; Destroy</th>
<th>Reserve &amp; Reaction</th>
<th>Route &amp; Area Security</th>
<th>Clearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Inf Div (8)</td>
<td>50</td>
<td>63</td>
<td>63</td>
<td>38</td>
</tr>
<tr>
<td>173d Abn Bde (2)</td>
<td>100</td>
<td>50</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>1st Cav Div (8)</td>
<td>75</td>
<td>75</td>
<td>63</td>
<td>75</td>
</tr>
<tr>
<td>1st Bde,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101st Abn Div (3)</td>
<td>67</td>
<td>67</td>
<td>67</td>
<td>67</td>
</tr>
</tbody>
</table>

d. **ANALYSIS.**

(1) Summary of Data.

(a) Sixty-five percent of the battalion commanders
stated a need for an additional rifle company for operations in Vietnam.

(b) Battalion commanders formed additional maneuver elements by combining organic platoon sized units during 49 percent of all battalion operations evaluated.

(c) The anti-tank platoon has not been used for the purpose for which it was organized and can be reduced in size.

(d) The majority of the missions performed by reconnaissance platoons could be performed by rifle platoons.

(e) Specific uses for an additional rifle company were apparent during 75 percent of all battalion operations evaluated.

(f) The combat elements furnished by battalions to fulfill the combined security requirements for battalion, brigade, and division command post and base areas averaged approximately the strength of one rifle company during the operations evaluated.

(2) Employment of Battalion Forces. It has been shown that the nature of operations in Vietnam imposes four major demands on the allocation of the infantry battalions' combat resources. On search and destroy operations the battalion is required to provide forces simultaneously to (a) search large areas, (b) provide blocking forces, (c) secure battalion and brigade forward bases and command posts, and (d) provide reserve/reaction forces for commitment when contact is established. On route and area security and on clearing operations the mode of operation differs. Although three of the demands for forces still apply, blocking forces are not always required. Despite differences in organization and security requirements, all four type battalions have found the rifle strength of the battalion insufficient to meet these demands, and all have responded to this situation in basically the same manner: by employing the specialized combat support elements as rifle units. There has been no requirement for the anti-tank platoons to be used in their intended role, and the missions normally assigned the reconnaissance platoon have been shared by all rifle platoons of the battalions. In all four type battalions the reconnaissance platoon and anti-tank platoon, with elements of the battalion mortar platoon, have been used to provide security, blocking, and reserve/reaction forces. Battalions of the 1st Cavalry Division, having a separate company headquarters (combat support company) to command these units, normally employ this force as an understrength rifle company to perform rifle company missions. The other type battalions have adopted the same approach even though no separate headquarters is available to command this additional unit.

5. (C) CONCLUSIONS

   a. The size and organization of the present rifle squad is
adequate.

b. The weapons squad organization is inappropriate in view of recommended weapons changes. The required organization is one squad leader and three machine gun crews of three men each.

c. The size and organization of the rifle platoon is adequate with the exception of the change to the weapons squad previously noted.

d. The size and organization of the present weapons platoon are inappropriate in view of recommended weapons changes. An organization appropriate to equipping this platoon with three 81mm mortars is as follows:

<table>
<thead>
<tr>
<th>Platoon Headquarters</th>
<th>81mm Mortar Squads (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lt Platoon Leader</td>
<td>1 E-5 Squad Leader</td>
</tr>
<tr>
<td>1 E-7 Platoon Sergeant</td>
<td>1 E-4 Gunner</td>
</tr>
<tr>
<td>3 E-5 Forward Observers</td>
<td>3 E-3 Ammunition Bearers</td>
</tr>
<tr>
<td>2 E-5 Fire Direction Computers</td>
<td>1 E-3 Assistant Gunner</td>
</tr>
<tr>
<td>1 E-4 Radio-Telephone Operator</td>
<td></td>
</tr>
</tbody>
</table>

e. The size and organization of the rifle company is adequate for operations in Vietnam. However, the mess teams currently assigned to headquarters and headquarters companies of the 1st Infantry Division, 173rd Airborne Brigade and the 1st Brigade, 101st Airborne division battalions should be assigned to the rifle companies for morale and administrative reasons.

f. The anti-tank platoons have not been used for the purpose for which they were organized, and although the 106mm recoilless rifle has been used in combat in Vietnam, it is not required in the numbers assigned.

g. The majority of the missions performed by reconnaissance platoons in Vietnam were the same as those normally performed by rifle platoons.

h. The battalion mortar platoons are normally employed in the role for which they were organized, and the size, organization, and equipment of these platoons is adequate.

i. In battalions having three rifle companies, command and control of battalion combat support elements is facilitated by separating combat support elements and headquarters and service elements into a combat support company and a headquarters and headquarters company.
j. Data obtained during the evaluation were inconclusive whether units required for airmobile operations were larger or smaller than those required for ground mobile operations. However, the areas covered by battalions during airmobile operations evaluated were larger than those covered during ground mobile operations.

k. The battalion strength used to provide for the security requirements of brigade and division bases and command posts averaged between 36 and 120 personnel in the four type battalions.

l. The battalion strength used to provide for the security of battalion bases and command posts averaged between 73 and 160 personnel in the four type battalions.

m. The strength available to each of the four type battalions is insufficient to meet simultaneously the operational requirements for searching, blocking, reserve/reaction, and security forces.
Appendix 3 to Annex D (Command, Control, and Communications)

EKA 44: Does the staff organization of the maneuver battalion provide for the most effective staff operation in the type operations being conducted?

1. (U) GENERAL. The organization and capabilities of the infantry battalion staffs were evaluated to determine their effectiveness in planning and supervising operations in the Vietnam environment. Both unit and special staffs were considered. Normal staff operations were evaluated with special attention to those staff functions that are either peculiar to or command unusual attention in this environment. Included were coordination with Army aviation and supporting services and the requirements imposed by civil affairs, civic action, and psychological operations and by coordination and liaison with GVN officials, ARVN, RF/PF, National Police, and other Free World Forces. Operational data were obtained on staff personnel utilization and sufficiency, and commander's comments were elicited on the overall adequacy of the staff. In the following discussion the adequacy of the unit staff with respect to normal staff duties is considered first, followed by discussion of other areas of staff responsibility.

2. (C) ADEQUACY OF BATTALION STAFF ORGANIZATION

a. DESCRIPTION AND COMPARISON OF INFANTRY BATTALION STAFFS

(1) Unit staffs. The unit staffs of the four type battalions evaluated are identical, each consisting of: S1, S2, S3, S4, Assistant S3 (Air), Sergeant Major, Intelligence Sergeant, Operations Sergeant, Assistant Operations Sergeant, Personnel Staff NCO, and an Operations Assistant.

(2) Special Staffs. The special staff of the four type battalions evaluated each has a communications officer, liaison officers (two), surgeon, headquarters commandant, service/support platoon leader, heavy mortar platoon leader, anti-tank platoon leader and reconnaissance platoon leader. The infantry battalions of the 1st Infantry Division, 173rd Airborne Brigade, and 1st Brigade, 101st Airborne Division each has a motor officer while there are none in airborne battalions.

b. UTILIZATION OF BATTALION STAFF PERSONNEL

(1) Operational data from 21 different battalions participating in 58 battalion operations were collected on the utilization of the battalion staff personnel in their TOE positions during operations. It was found that 14 different battalions on 45 battalion operations used all the battalion staff personnel (unit and special staff; officers and NCO's) in their TOE positions. Seven different battalions
on 12 battalion operations used one or more staff personnel in other than their TOE positions. The table below shows by staff section the use of staff personnel during operations.

**USE OF STAFF PERSONNEL IN TOE POSITIONS**

<table>
<thead>
<tr>
<th>Sr Sec</th>
<th>S2 Sec</th>
<th>S3 Sec</th>
<th>S4 Sec</th>
<th>Sp Staff Pers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nr Bn Opns in which Pers used in TOE pos</td>
<td>55</td>
<td>58</td>
<td>57</td>
<td>58</td>
</tr>
<tr>
<td>% Bn Opns Evaluated Pers used in TOE pos</td>
<td>95%</td>
<td>100%</td>
<td>98%</td>
<td>100%</td>
</tr>
</tbody>
</table>

(2) It is apparent that the personnel of the unit staff sections are used in their TOE positions. Three of the instances of staff personnel not being used in their TOE positions appear to reflect a shortage of authorized personnel and another instance reflects the commander’s method of operation. All other instances are the assignment of the S5 responsibility to unit and special staff personnel. Five battalions on nine operations used various special staff officers as S5 and two battalions on five operations assigned S5 responsibility to unit staff officers as a major additional duty. In sum, seven different battalions found the S5 staff load of such magnitude that a unit or special staff officer was assigned this responsibility as a major additional duty.

c. **SUFFICIENCY OF BATTALION STAFF PERSONNEL.** Operational data from 21 different battalions (Battalion XO responding) participating in 58 battalion operations were collected on the sufficiency of staff personnel. It was found that eleven different battalions on 40 battalion operations considered that sufficient staff personnel were available to plan and direct those operations. Ten different battalions on 18 battalion operations considered that insufficient personnel were available in one or more areas of the staff. The table below shows by staff section the sufficiency of staff personnel.

<table>
<thead>
<tr>
<th>Sr Sec</th>
<th>S2 Sec</th>
<th>S3 Sec</th>
<th>S4 Sec</th>
<th>Ln Off</th>
<th>Special Staff Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nr Bn Opns in which Staff Personnel Sufficient</td>
<td>53</td>
<td>48</td>
<td>53</td>
<td>56</td>
<td>58</td>
</tr>
<tr>
<td>% Bn Opns Evaluated Staff Pers Sufficient</td>
<td>92%</td>
<td>83%</td>
<td>92%</td>
<td>97%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Of those battalions considering insufficient staff personnel available:

(a) Four battalions, three of which belonged to the
same brigade, on five operations indicated need for additional personnel in the S1 section for reports, awards, and decorations. One battalion on one operation indicated need for additional personnel in the S3 section for the same purpose.

(b) Four battalions on nine operations indicated a need for an additional officer or NCO or both in the S2 section for continuous operations.

(c) One battalion on two operations indicated need for additional S4 personnel.

(d) Four battalions on eleven operations indicated need for S5 personnel either in the S2 or S3 section or in an S5 section.

d. CAPABILITY FOR MAINTAINING CONTINUOUS OPERATIONS. Operational data (battalion S3 responding) were collected to determine if sufficient staff personnel were available to maintain continuous command post operations during tactical operations. Data was obtained on 43 battalion operations in which 19 different battalions participated. On 38 of these battalion operations, sufficient staff personnel were available to maintain continuous command post operations; on five operations there were insufficient personnel. One battalion on four operations indicated a need for an E4 clerk/typist and one battalion on one operation indicated a need for an additional assistant S3.

e. BATTALION COMMANDER'S EVALUATION OF STAFF ADEQUACY. Of 21 battalion commanders responding, nine indicated that no changes in battalion staff organization were needed for operations in this environment. Twelve battalion commanders said that changes are required. Nine of these believe there is a need for S5 personnel on the staff to supervise civil affairs and civic actions; five wanted an S5 staff section, one an S5 NCO, two an S5 officer in the S2 section, and one an S5 officer in the S3 section. Three battalion commanders desired psychological warfare personnel and two commanders wanted both S5 and psychological warfare personnel. Other changes recommended were: additional personnel in S2 section (two commanders), additional personnel in S1 section (three commanders), and additional personnel in S3 section for sustained operations (three commanders).

f. ANALYSIS OF BATTALION STAFF ADEQUACY. The operational data on staff utilization, sufficiency, and capability for maintaining continuous CP operation, together with battalion commanders' opinions, are considered in the following analysis by staff section:

(1) S1 Section. One battalion on three battalion operations used the S1 as a rear detachment commander. Four battalions, three of which belonged to the same brigade, on five battalion operations needed additional personnel in the S1 section for reports, awards, and decorations. Three of the battalion commanders who indicated an operational
need for additional Sl personnel also recommended the addition for all
battalion operations. In summary, the four type battalions have
identical Sl sections; on 92 percent of the battalion operations eval-
uated sufficient personnel were available to the Sl section; and, 18
of 21 battalion commanders responding indicated that no changes were
needed in the Sl section. It is concluded that the present Sl section
is adequate.

(2) S2 Section. Four battalions on five operations
(Bn XO responding) declared a need for an additional officer or NCO,
or both, in the S2 section for continuous operations. Two battalion
commanders wanted more people in the S2 section for the same purpose.
In two cases, it was noted that the additional personnel were required
to maintain S2 operations in base camp while the battalion was on oper­
ations. Other noted insufficiencies in this section were attributed to
using S2 personnel to perfon. the S5 function. In summary, on 38 of
43 battalion operations sufficient personnel were available to maintain
continuous OP operations; on 52 of 58 battalion operations sufficient
personnel were available to perform the S2 functions (excluding the
additional S5 duties imposed); and, 19 of 21 battalion commanders queried
indicated no changes are needed in the S2 section. It is concluded
that the present organization of the S2 section is adequate.

(3) S3 Section. The stated requirements for additional
S3 personnel almost wholly reflect the use of S3 personnel to perfon. the S5 function. Only one battalion commander stated a need for addi­
tional S3 personnel and on only two operations did the battalion XO
indicate that additional personnel were required to perform S3 functions.
It is concluded that the present S3 section is adequate.

(4) S4 Section. In 58 operations evaluated, S4 personnel
were used in their TOE positions and in 95% of the operations evaluated
the personnel available to this section were sufficient to perfon. the
S4 function. No changes to this section were recommended by battalion
commanders. It is concluded that the present S4 section is adequate.

(5) Special Staff Officers. The recurring use of unit and
special staff officers to perfon. the S5 function indicates a requirement
for an S5 section at battalion. This requirement is discussed below
separately in connection with the impact of civil affairs, civic action,
and psychological operations of staff operation. No other changes to
the battalion special staff were shown to be necessary.

3. (c) IMPACT OF CIVIL AFFAIRS, CIVIC ACTION, AND PSYCHOLOGICAL
OPERATIONS ON BATTALION STAFF

a. GENERAL. In responding on staff utilization, battalion
XOs's of seven different battalions on 14 battalion operations reported
that a unit or special staff officer had been assigned S5 responsibility
as a major additional duty, and four battalions on 11 operations

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indicated a need for additional personnel in the S2 or S3 section—or in a separate section—to perform the S5 function. Nine battalion commanders recommended addition of an S5 section (or S5 personnel in a unit staff section) when queried as to changes needed in the battalion staff organization. Data were collected on the operational staff supervision of civil affairs, civic action, and psychological operations. Continuing activities of this nature in the battalion TAOR were examined within the framework of brigade and division programs. Also considered were requirements in this area for future operations.

b. OPERATIONAL CIVIL AFFAIRS AND CIVIC ACTION. Operational data were collected on 17 battalions participating in 42 battalion operations. Fifteen of these battalions performed civil affairs/civic action on 22 operations. The nature of the civil affairs/civic action performed and the size of battalion elements participating is shown below.

CIVIL AFFAIRS/CIVIC ACTION ON BATTALION OPERATIONS

<table>
<thead>
<tr>
<th>Activity</th>
<th>Nr Bn Opns</th>
<th>Personnel Employed</th>
<th>Nr Bn Opns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refugee Control</td>
<td>5</td>
<td>Medical Platoon</td>
<td>10</td>
</tr>
<tr>
<td>MEDCAP</td>
<td>17</td>
<td>Engineer Platoon</td>
<td>1</td>
</tr>
<tr>
<td>Construction</td>
<td>3</td>
<td>Rifle Platoon</td>
<td>4</td>
</tr>
<tr>
<td>Goodwill</td>
<td>2</td>
<td>Squad</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less than Squad</td>
<td>4</td>
</tr>
</tbody>
</table>

C. OPERATIONAL STAFF SUPERVISION OF CIVIL AFFAIRS, CIVIC ACTION AND PSYCHOLOGICAL OPERATIONS.

(1) Operational Staff Supervision of Civil Affairs and Civic Action.

(a) Operational data on staff supervision of civil affairs/civic action were obtained from 21 different battalions on 56 battalion operations. All members of the unit staff and various special staff personnel exercised staff supervision to varying degrees during these operations. Staff supervision was exercised over these activities by 17 different battalions in 30 battalion operations. The frequency with which staff members were used is illustrated below (table includes operations in which several staff personnel exercised supervision):
(b) In four battalion operations by one battalion, special staff personnel were designated S5 in addition to unit staff personnel already exercising some supervision. In 18 battalion operations by 14 battalions, staff supervision was exercised solely by unit staff personnel and in six operations by four battalions, S5 staff supervision was solely by special staff personnel. Special Staff personnel assigned the S5 responsibility devoted from 10 to 100 per cent of their effort to this duty during planning and conduct of operations. Unit staff officers exercising staff supervision of the S5 function devoted from two to 50 percent of their effort to this responsibility.

(2) Operational Staff Supervision of Psychological Operations. Psychological operations were conducted by 14 different battalions on 26 battalion operations. Operational data were collected from 21 different battalions on 55 battalion operations. All of the battalions of the 1st Cavalry Division, the 173d Airborne Brigade, and the 1st Brigade, 1/101st Airborne Division conducted psychological operations on one or more tactical operations, but this was done by only one battalion of the 1st Infantry Division. The S2 exercised staff supervision, either solely or with other staff members, in 11 battalions on 20 operations devoting an average of 9.2 percent of his efforts to this function during planning and 4.9 percent during conduct of the operation. The S3 exercised staff supervision, either solely or with other staff members, in seven battalions on 10 battalion operations, devoting an average of 3.5 percent of his efforts to this during both the planning and conduct of the operation. Both the S2 and S3 exercised staff supervision in five battalions on seven battalion operations.

d. CONTINUING BATTALION CIVIC ACTION PROJECTS. All battalions maintain continuing civic action programs within the assigned TAOR. These programs normally include projects of a more permanent nature than those performed in connection with tactical operations. Data were obtained from the Civic Action Section, USARV, on the civic action performed by battalions during a one month period. Examples are given of civic action by one battalion each from the 1st Cavalry Division, the
1st Infantry Division, and the 173d Airborne Brigade. Data were unavailable on battalions of the 1st Brigade 101st Airborne Division. The data contained information on civic action both in the TAOR and in connection with tactical operations, and in some cases it was difficult to identify where the civic action had been performed. Where there was doubt as to the location of the civic action, that project was eliminated from consideration. The examples below show only civic action actually performed in the TAOR.

(1) 1st Battalion, 18th Infantry, 1st Infantry Division, Period 15 January - 25 February 1966. This battalion maintained a continuing program of assistance to two orphanages within the TAOR. This program consists of medical aid, issue of relief commodities, and construction and repair of existing facilities at the Hanoi Orphanage (60 orphans) and the Thanh Hoa Orphanage (25 orphans). In addition, 200 children of poor families were fed twice daily throughout the reporting period.

(2) 2d Battalion, 503d Airborne Infantry, 173d Airborne Brigade, Period 2 January - 5 February 1966. Within the reporting period, this battalion completed construction of one school, started construction of another, and refurbished other schools in the TAOR. The battalion provided milk to all schools in the area and battalion medical personnel serviced the schools twice during this period. Discarded lumber was collected on a continuing basis and delivered to village chiefs and refugee camps for local construction projects. The battalion also repaired the road from Bien Hoa Air Base to the village at Ben Ca and constructed a well in Binh Hoa Village.

(3) 2d Battalion, 5th Cavalry, 1st Cavalry Division, Period 25 January - 21 February 1966. Despite heavy operational commitments during the reporting period, the battalion held sick call at refugee camps in the vicinity of An Khe on seven occasions treating 188 patients total. The battalion is also in the process of procuring a brick making machine for residents of the An Khe refugee camp to use in future commercial enterprises.

e. STATED REQUIREMENTS BY BATTALION COMMANDERS.

(1) Battalion commanders were queried for their requirements for S5 and psychological warfare personnel on the battalion staff. Eleven of 21 battalion commanders responding stated a definite need for an S5 section to augment the battalion staff. Three commanders desired an additional officer in either the S2 or S3 section for this purpose and four felt the function should be assigned as an additional duty to a battalion officer. Two commanders believed civil affairs/civic action should be handled at brigade level and one commander said without comment that a requirement does not exist at battalion level. In summary, 15 of 21 battalion commanders wanted additional S5 personnel at battalion level with many of these commanders emphasizing the need for language qualified personnel trained in this duty.
(2) Seventeen of 21 battalion commanders responding indicated there was no requirement for psychological warfare personnel at battalion level and four commanders felt that psychological warfare personnel should be included in a battalion S5 section.

f. RELATION TO BRIGADE AND DIVISION CIVIL AFFAIRS/CIVIC ACTION.
The nature and magnitude of the civil affairs, civic action, and psychological operations effort at brigade and division level is described in detail in Appendix 7, EEA 48, paragraph 2. The infantry battalion is one of the major implementing agencies of the USARV Civic Action Program in the TAOR’s and especially in connection with tactical operations. The 1st Cavalry Division, 1st Infantry Division, 1st Brigade, 101st Airborne Division and the 173rd Airborne Brigade have recommended an S5 augmentation for their infantry battalions.

g. FUTURE REQUIREMENTS. It is expected that future operations in Vietnam will increasingly emphasize the securing of areas and restoring them to control of GVN authorities. Few operations of this type have been conducted to date, but they illustrate the importance of the role of civil affairs and civic action to the area security mission and the attendant reconstruction program. An example of this is furnished by Operation Happy Valley conducted by elements of the 1st Cavalry Division in the Vinh Tanh Valley from 13 October - 31 October 1965. On this operation, the 1st Battalion, 5th Cavalry coordinated action with the District Chief, Village Chiefs, the National Police and a psychological warfare team in addition to normal coordination and liaison with brigade, supporting artillery, supporting aviation units, supporting air and interrogations prisoner of war (IPW) and ASA teams attached to brigade. Civic actions undertaken during the two-week operation included a sick call program, construction, and a goodwill program. The battalion surgeon treated 891 patients and the company aidmen an undetermined number during the operation. Company D aided the villagers in the repair of damaged housing and prepared two buildings for the battalion surgeon’s use. This company also did limited repair work on the road running through the hamlet. Headquarters Company repaired the roof of the local Catholic Church and Company D, 8th Engineers, provided a grader for road repair. The experience of the 1st Battalion, 5th Cavalry, illustrates the staff load imposed by the extensive coordination and planning required for area security and reconstruction missions of extended duration.

h. ANALYSIS. Above data indicate that on a significant number of the battalion operations evaluated, civil affairs/civic action was performed and that the battalions either gave special staff personnel this responsibility or assigned it as an addition responsibility to the unit staff sections. In addition, battalions executed extensive civic action programs in their assigned TAOR’s in support of the brigade and division civil affairs/civic action programs. Psychological operations are not usually conducted at battalion level and battalion personnel are rarely used for this purpose. Fifteen of 21 battalion commanders responding indicated a need for S5 personnel at battalion level. The few
operations to date of an area security and reconstruction nature illustrates the coordination required by operations of this type on battalion staffs. In view of the civil affairs/civic action conducted on search and destroy operations to date, the continuing civic action program in assigned TAOR's and the anticipated activities of this nature in connection with area and security and reconstruction, it is concluded that an S5 section of one officer and one NCO should be added to the infantry battalion staff. A psychological warfare operations capability is not required in this action.

4. (C) COORDINATION AND LIAISON.

a. WITH GVN AGENCIES. Battalions normally maintain liaison with the brigade to which they are assigned, and with supporting Army artillery and aviation. This is the usual employment of the battalion liaison officers. Coordination and liaison with GVN officials is usually performed at brigade and division level, but on 16 battalion operations of 44 considered, coordination by battalion was required.

<table>
<thead>
<tr>
<th>Coordination with</th>
<th>Nr Opns</th>
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<tbody>
<tr>
<td>Sector Advisor</td>
<td>4</td>
</tr>
<tr>
<td>District Chief</td>
<td>9</td>
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<tr>
<td>Village Chief</td>
<td>3</td>
</tr>
<tr>
<td>National Police</td>
<td>2</td>
</tr>
<tr>
<td>RF/PF</td>
<td>2</td>
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<td>ARVN</td>
<td>7</td>
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<td>CIDG</td>
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The battalion S2, in most cases, effected coordination with GVN agencies and on nine occasions it was noted that there were language difficulties. Coordination and liaison with allied units using a battalion liaison officer, occurred on only one operation. In this case, coordination and liaison was performed with a Republic of Korea regiment and no difficulties were noted.

b. WITH ARMY AVIATION. Army Aviation supported 35 out of 42 operations considered. The aviation units were always in support of the infantry battalions and never attached. Supporting aviation units had previously supported the battalions in all cases but one. The number of times support was rendered previously ranged from three to 100. Coordination most frequently took place one to five days prior to the operation (24 operations), but in nine operations coordination was performed more than five days in advance. Problems in coordination were noted on
six of the 35 operations: once because of lack of authority of the liaison officer, once because aircraft were grounded, once because of insufficient time, and, on three operations, because aviation changed the landing plan without notifying the supported unit.

5. (C) STAFF SUPERVISION OF CLOSE AIR SUPPORT.

a. The system for obtaining and supervising Air Force close air support is described and evaluated in Appendix 5 to Annex C. The system is satisfactory as organized and close air support obtained is timely and effective. Close air support was provided on 36 out of 46 battalion operations considered. In all cases an Air Force airborne FAC was used and in 17 operations an Air Force ground FAC team was also used. The Air Force ground FAC team consists of one officer and one airman, and is equipped with a ½ ton truck with vehicular UHF and VHF radios and the AN/PRC-25 and AN/PRC-41 (UHF). The vehicle is not taken on airmobile or footmobile operations and normally only the AN/PRC-25 radio is used. The AN/PRC-41 is too heavy and a need has been indicated to replace it with a truly portable UHF radio. (See Appendix 9)

b. Ground FAC teams are attached to divisions and brigades for operational attachment to battalions as needed. The 1st Brigade, 101st Airborne Division employs only the airborne FAC's and all other units use varying combinations as the situation dictates. As presently organized, the system is highly flexible, presents no outstanding problems of staff supervision, and provides effective close air support.

c. Air Force communications systems were used to obtain both immediate and preplanned strikes during the evaluation period. Although this system for obtaining close air support proved adequate for battalions, requests for preplanned strikes sometimes bypassed intermediate ground command echelons. This resulted in a lack of coordination and proper assignment of priorities by higher headquarters. Headquarters, Military Assistance Command, Vietnam, as the result of a separate study, is directing the establishment of the Army air request net.

6. (C) CONCLUSIONS.

a. The staff organizations of the four type infantry battalions were inadequate to properly plan and supervise civil affairs and civic action, both on tactical operations and in TAOR.

b. Otherwise, battalion staffs were adequate for operations in Vietnam.

c. The system for obtaining and directing close air support was timely and effective, largely through use of airborne FAC's. However, the lack of an Army air request net resulted in incomplete coordination and proper assignment of priorities at higher headquarters.
Appendix 4 to Annex D (Command, Control, and Communications)

EEA 45: As organized, are the operational capability and organization of the command facilities/operations centers of the maneuver battalions equal?

1. (U) GENERAL

Communications, shelters, power sources, display and storage equipment, and transportation were all evaluated to ascertain the adequacy of command facilities/operations centers in the combat environment of Vietnam. Data were gathered from the battalion commanders and headquarters commandants for each operation and from the battalion S3's and headquarters commandants on a one time basis.

2. (C) COMMAND FACILITIES/OPERATIONS CENTER CAPABILITIES

a. COMMUNICATIONS. The communications equipment provided for the command facilities/operations centers was found to be adequate insofar as capabilities were concerned. However, the mobility of equipment in the 1st Infantry Division, and, to a lesser degree, in the two airborne brigades, was found inadequate. The detailed discussion of this equipment and its undesirable weight and cube characteristics is contained in Appendix 11 of this Annex. In addition, the environmental conditions degrade the capabilities of some equipment. The equipment so affected is discussed in Appendix 10 of this Annex.

b. EQUIPMENT.

(1) Shelters. The shelters used by battalions for operations centers varied by type battalion and by type operation. In general, battalions of the 1st Infantry Division used an M109 2 1/2-ton van as the shelter when vehicular movement was possible. When vehicular movement was not possible or when battalions were engaged in airborne operations, the shelter used was a general purpose tent, either medium or small.

The 1st Cavalry Division battalions habitually used existing shelters, a small general purpose tent, or shelter halves during operations. The 1st Brigade, 101st Airborne Division battalions normally used a small wall tent or existing shelter. The battalions of the 173rd Airborne Brigade used a general purpose tent in open areas and ponchos in jungle operations.

Of the eight headquarters commandants from the 1st Infantry Division responding, two considered the M109 van unsuitable for this environment. Of the four headquarters commandants of the 1st Cavalry Division responding, one felt that a lightweight shelter 10 x 10 feet
was needed which could be folded into less than one cubic foot of space. One of the two headquarters commandants of the 173rd Airborne Brigade stated that a small general purpose tent was required.

(2) Power Sources. The 1st Infantry Division battalions used 1.5 kilowatt and/or 3 kilowatt generators on most operations. Of the eight headquarters commandants responding, one felt that the 1.5 kilowatt generator was too noisy and as a result, drew fire. This battalion had rigged four 24 volt batteries to provide power. The 1st Cavalry Division battalions generally took no power units on operations but relied on flashlights or Coleman lanterns for light, and batteries for radio power.

The three headquarters commandants of the 1st Brigade, 101st Airborne Division battalions used the authorized 3 kilowatt generator on operations and felt it was adequate for the operations center. The 173rd Airborne Brigade battalions did not use the generator on operations primarily because of the noise it created.

(3) Information Display and Storage. The majority of the 1st Infantry Division battalions used map boards, field desks and safes in their operations vans during operations. One of eight battalion S3's in that division cited the need for additional equipment in order to establish operations centers at both base camp and field locations. The 1st Cavalry Division equipment normally consisted of one operations/intelligence map and a combined operations/intelligence log in a folder. Two of the eight battalions of the 1st Cavalry Division used, in addition, a container (ammunition box or foot locker) on operations. Deficiencies were noted by two battalion S3's; one desired a small folding map board with a built in, battery powered light and the other felt the need for a small map case with shoulder sling and space for pencils.

All three battalions of the 1st Brigade, 101st Airborne Brigade used field desks and map boards during operations. The battalion S3's of this brigade all desired a lightweight fiber foot locker with strong handles and two-by-four foot aluminum map boards which could be joined if necessary. The 173rd battalions carried containers for maps, overlay paper, and grease pencils and found no deficiencies in this equipment.

c. MOBILITY.

(1) Mobility Means.

(a) 1st Infantry Division. During 15 battalion operations by nine battalions, the ground command facility/operations centers moved 32 times. During one operation it did not move at all; on another, five moves were made during a 17 day operation. The means used to make the moves were:

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