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ARMY CONCEPT TEAM IN VIETNAM  
APO 143, San Francisco, California

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DDC NO. 343719  
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② Mechanised Rifle Troop (M113) (21)

⑨ MONTHLY TEST REPORT, NUMBER 3,

1-30 April 1963,

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ARMY CONCEPT TEAM IN VIETNAM  
APO 143, San Francisco, California

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SUBJECT: Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)  
(1-30 April 1963) (U)

TO: See ANNEX I

1. (C) General.

a. Purpose of the test.

To provide data for operational evaluation of a mechanized rifle troop equipped with M113 armored personnel carriers to include organization for combat, tactics and techniques of employment, logistical support requirements, and vehicle performance in counterinsurgency operations in the Republic of Vietnam (RVN).

b. Authority.

CINCPAC message, subject: "Proposal for US Army Tests in Vietnam",  
DTG 220216Z (January 1963).

c. Test concept.

(1) Units and vehicles in this test are organic to mechanized rifle troops of the ARVN (Army of the Republic of Vietnam) armored cavalry squadrons. Command and control is Vietnamese.

(2) Mechanized rifle troops were observed as they engaged in training, maintenance, and combat operations in each of the four corps tactical areas of the RVN. Data required to respond to the test objectives were collected and evaluated. MAAG advisors and Vietnamese personnel assisted in the collection of data.

(3) Efforts were made to encourage the Vietnamese to seek sound tactics and techniques of employment in all phases of operations. ACTIV personnel were assisted by MAAG advisors, and through them by the Vietnamese in the development of these techniques.

(4) Operations were observed in the following general areas:

1st Armored Cavalry Squadron	III Corps Area
2d Armored Cavalry Squadron	IV Corps Area
3rd Armored Cavalry Squadron	II Corps Area
4th Armored Cavalry Squadron	I Corps Area

d. Test Progress.

(1) Operations observed during the third monthly reporting period have been similar in most respects to those observed in previous months. The primary reason for this is that once a tactic or technique is found to be successful, ARVN commanders are reluctant (understandably) to try anything new. However, observations will continue, and significant

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SUBJECT: Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)  
(1-30 April 1963) (U)

findings will be reported as appropriate.

(2) The test is considered to be 95% complete.

2. (C) Description of the test unit.

a. The test unit involved in this evaluation is a mechanized rifle troop equipped with 15 M113 armored personnel carriers and organized as shown in Annex A, Monthly Test Report Number 1 -- Mechanized Rifle Troop (M113), 15 March 1963. This unit is basically an infantry rifle company trained to conduct both mounted and dismounted operations.

b. There are eight mechanized rifle troops in the ARVN. During April 1963 one of the troops of the 4th Armored Cavalry Squadron was moved from the I Corps area to the IV Corps area. Mechanized Rifle troops are assigned or attached to squadrons as follows:

(1) 1st Squadron - 2 troops

(2) 2nd Squadron - 3 troops

(3) 3rd Squadron - 2 troops

(4) 4th Squadron - 1 troop

3. (C) Factors limiting the test effort.

a. Armored Cavalry Squadrons and equipment are under the command and control of the ARVN commanders. Requests for the collection of particular data and recommendations on new or revised tactics and techniques were made through MAAG advisors. Firm scheduling, predictable completion dates, and complete coverage of all test objectives were difficult to attain.

b. Testing was conducted primarily in actual combat. This circumstance precluded establishment of the controls over test activities that are normally maintained in CONUS troop tests. All test activities were, of necessity, subordinate to tactical operations.

c. Squadron tactics and techniques could not be evaluated because a mechanized rifle troop was the largest size unit employed during the test period.

d. Little or no information has been available on three of the objectives, as listed below, and for the reasons stated:

(1) Extended operations with aerial resupply. Operations have generally been of two or three days duration wherein the basic load carried on the vehicle is adequate. When resupply has been required, it has normally been effected by truck or boat.

(2) Combined operations with reconnaissance troops (M114). Units equipped with the M114 have been in training during most of the test period. Information on this test objective will be included in a similar objective contained in the M114 test plan.

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SUBJECT: Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)  
(1-30 April 1963) (U)

(3) Combined operations with armed helicopters. Restrictions placed on use of armed helicopters have precluded operations of this nature.

#### 4. Projected study items.

Evaluation of the use of the M113 will continue seeking additional information on all test objectives and on the following items:

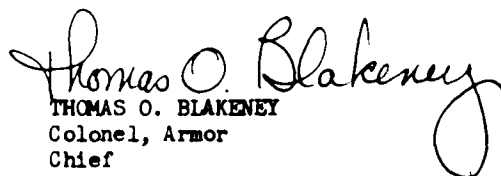
- a. Firing ports and sight ports on each side of the M113.
- b. Capstans and anchors as recovery devices.
- c. Cupolas and shielding devices for gunners.
- d. Dual-mounted .30 caliber machine guns in lieu of the .50 caliber machine gun.
- e. Flamethrowers mounted on M113s.
- f. Organization for combat proposed by ARVN Armored Command and adopted by 1st Armored Cavalry Squadron about 15 April 1963 (see Annex H).

#### 5. (C) Content and format of report.

- a. DA letter, AGAM-P(M) 381 (31 Oct 62) DCSOPS, subject: "Army Troop Test Program in Vietnam (U)," 6 November 1962, as amended.
- b. ACTIV letter (to CGUSACDC), subject: "Plan of Test, Mechanized Rifle Troop (M113)," 28 November 1962.
- c. ACTIV letter (to CINCPAC through COMUSMACV), subject: "Summary of Test Plan for Mechanized Rifle Troop (M113) (U)," 3 December 1962.
- d. CINCPAC message, subject: "Proposal for US Army Tests in Vietnam" DTG 220216Z (January 1963).

#### 9 Inclosures

1. ANNEX A Organization
2. ANNEX B Tactics & Techniques
3. ANNEX C Logistical support requirements
4. ANNEX D Psychological effects
5. ANNEX E Vehicle performance
6. ANNEX F Operation in Fourth Corps area
7. ANNEX G Quang Ngai operation
8. ANNEX H ARVN organization for combat
9. ANNEX I Distribution

  
THOMAS O. BLAKENEY  
Colonel, Armor  
Chief

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Monthly Test Report Number 3 --- Mechanized Rifle Troop (M113)

ANNEX A -- Objective 1 (Organization)

## 1. (C) Objective.

To determine the optimum organization for combat of the mechanized rifle troop at the platoon and troop level, to include cross-reinforcement with elements of the reconnaissance troop equipped with the M114 command and reconnaissance vehicle.

## 2. (C) Discussion.

a. Organization is shown in Appendix 1 to Annex A, Monthly Report Number 1, 15 March 1963.

b. Observations to date continue to indicate that the number of vehicles in the platoon and troop can be properly controlled by the commander.

c. The experience of the third monthly test period substantiates the previous month's observation that the 11-man squad (plus vehicle driver and gunner) is a satisfactory complement for each APC. (See Paragraph 2c, Annex A, Monthly Test Report Number 2.)

d. Aerial surveillance greatly facilitated operations on at least two occasions but would have been of greater value to the operating unit if the surveillance aircraft had been organic to the unit. Surveillance by assigned aircraft of the Armored Cavalry Squadron headquarters would provide flexibility and increased utilization of aircraft.

e. In eighteen operations observed, the 57mm recoilless rifle was fired only once. There is no apparent need for this weapon in the ARVN Armored Cavalry Squadron.

f. Mortars were used sporadically, and there were no observed fire missions of more than three rounds per gun. For appropriate fire missions, two mortars, rather than the three currently authorized by the troop TOE, appear to be adequate. Increased employment and improved effectiveness of this type of weapon would probably be accomplished by the adoption of vehicular-mounted mortars (T257E1). (See Paragraph 2g, Annex A, Monthly Test Report Number 2.)

g. There is a continuing need for M113's for logistical support and transport of supporting and attached units. (See Paragraph 2f, Annex A, Monthly Test Report Number 2.) The two vehicles made available by elimination of the 57mm recoilless rifles and one 81mm mortar could be used for this purpose.

h. Unit messes, on operations as well as in garrison, contribute to the efficiency of the units. (See Paragraph 2h, Annex A, Monthly Test Report Number 2.)

## 3. (C) Findings.

a. The authorized number of men and vehicles per rifle platoon is satisfactory.

b. The effectiveness of surveillance aircraft would be increased if the aircraft were organic to the squadron.

c. The 57mm recoilless rifle section is not needed.

d. One of the three authorized 81mm mortar crews could be eliminated from the TOE without detriment to the unit.

ANNEX A

ANNEX A

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)

ANNEX A -- Objective 1 (continued)

e. Logistical and support vehicles are needed. Two vehicles could be made available for these purposes by elimination of the 57mm recoilless rifle section and one 81mm mortar crew.

f. Adoption of vehicular-mounted mortars (T257E1) would improve the mortar capability of the unit.

g. Unit messes, on operations as well as in garrison, contribute to the efficiency of the units.

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113) (U)

### ANNEX B -- Objective 2 (Tactics and techniques)

#### 1. (C) Objective.

To determine the most effective tactics and techniques of employment in the following type counterinsurgency operations under terrain and climate conditions peculiar to the RVN.

- a. Blocking and destruction operations.
- b. Security.
- c. Reconnaissance.
- d. Amphibious operations (canals, rivers, inundated areas).
- e. Extended operations with aerial resupply.
- f. Combined operations with Armored Cavalry Reconnaissance Troop (M114).
- g. Combined operations with armed helicopters.

#### 2. (C) Discussion.

##### a. General.

(1) Cross-country mobility. The M113 has demonstrated that it can operate effectively cross-country in most areas of Vietnam. However, mobility is limited in certain mountains and dense jungle areas. (See Paragraph 2a(3), Annex B, Monthly Test Report Number 1.)

(2) Mounted combat vehicle. The M113 has been used as a mounted combat vehicle and is capable of assaulting and closing with insurgents in prepared positions. Except in isolated instances, insurgent ammunition has not penetrated the M113 armor-plate; however, partially exposed gunners are vulnerable. A locally-fabricated shield has provided some protection. (See Paragraph 2j, Annex B, Monthly Test Report Number 1.)

(3) Dismounted action. The emphasis on the use of the M113 as a combat vehicle should not obscure the capability for dismounted action. Dismounted actions can be supported by fire from the M113s (see Paragraph k, Annex B, Monthly Test Report Number 1; Annex G, Monthly Test Report Number 2; and Annex F and G, this report) but, if necessary, on foot units can operate without support of the M113s. Such was the case on three search-and-clear missions conducted in March by the 5th Mechanized Rifle Troop, 3rd Armored Cavalry Squadron near CHEO REO. Ravines and steep mountains that could not be negotiated by M113s were searched (reconnoitered) by dismounted personnel. Dense undergrowth prevented M113 support.

(4) Movement of M113. Although the M113 is capable of cross-country movement in most areas of the RVN, cross-country movement should be prescribed only when necessary to the tactical situation or when it is the most expeditious means to get from one point to another. In an operation conducted in the Delta area during the first week of April, the 5th Mechanized Rifle Troop, 2nd Armored Cavalry Squadron was ordered to move to a supply point by the most direct cross-country route. Because of the intervening canals and bog areas the time required to reach the supply point could have been reduced one third by using available roads and trails even though the distance would have been four times as great.

ANNEX B

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113) (U)

ANNEX B -- Objective 2 (continued)

(5) Night attack. The 4th Mechanized Rifle Troop, 2nd Armored Cavalry Squadron successfully employed the M113s on a night attack in the Delta area in April. Troops were deployed, objectives designated, and missions assigned during daylight. It became dark before the attack could be launched, but the operation continued. Flares and fires ignited by the flame thrower provided illumination. M113s moved to within 100 meters of the insurgent positions and continued to support by fire as dismounted infantry closed on the position. (See Annex F, this report.)

(6) Separate platoon action. Platoons have proved capable of separate actions for short periods. The 5th Mechanized Rifle Troop, 3rd Armored Cavalry Squadron successfully employed platoons on separate search and clear missions near CHEO REO in March 1963. During the QUANG NGAI Operation the 4th troop of the same squadron used one platoon to block the neck of a peninsula while the remainder of the troop swam from the mainland to the end of the peninsula. This platoon then drove toward the neck of the peninsula and the blocking platoon, clearing the area of insurgents.

(7) Communications. In 18 operations observed, all M113's of each troop operated, as nearly as can be determined, on the same channel. This created an abundance of traffic and confusion on one channel and put the troop commander in the position of directing each individual vehicle. The situation could be remedied by requiring platoons to use separate channels. Adequate communications facilities and channels are available for this purpose.

(8) Gunnery. The 5th Troop, 3rd Armored Cavalry Squadron was observed making kills with the .50 cal at distances of 500 to 900 meters. This troop completed unit training about six weeks before observation. Other units observed, who completed unit training at least six months before the test period, were not nearly as proficient in gunnery and did not make the best use of fire-control instruments and aids. This indicates a need for periodic retraining in gunnery fundamentals as well as other military fundamentals.

(9) Local security. In most operations observed, local security, especially at night, was non-existent or extremely lax. A classic example is one troop that spent most of the night floating in a narrow (10 meter wide) canal. All men appeared to be asleep.

(10) Attack of a distant point. One troop was given the mission of moving approximately 163 km to an LD for an attack on an insurgent unit. The troop moved out in the afternoon, covered approximately 138 km, then bivouacked for the night. The LD was reached early the next morning only to find that the insurgents had withdrawn and dispersed. The M113 can travel 136 miles (216 km) without refueling. Advantage should be taken of this operating range when moving to attack distant positions. Halts for any reason give insurgent agents time to relay troop movement information to insurgent commanders. It is interesting to speculate what might have happened if this entire movement to the LD had been made under cover of darkness and forced march conditions followed by a daylight attack.

(11) Use of varied routes. A variety of routes must be used to avoid mines and other insurgent traps and defenses. (See Paragraphs 2c and 3f, Annex B, Monthly Test Report Number 2; Paragraph 2c(3), Annex E, this report.)

(12) Show of force. The M113 has a decided psychological affect on both insurgents (see Paragraph 3c, basic letter, Monthly Report Number 2) and the civilian populace. In an operation in I Corps area, 20 April 1963, the 5th Mechanized Rifle Troop, 4th Armored Cavalry Squadron moved into the village of BA LONG where, according to the Sector Chief, a vehicle had not been seen in the memory of most inhabitants. The people were particularly awed and impressed by the way the vehicle swam the bordering river and negotiated inundated fields.

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### Monthly Test Report Number 3 — Mechanized Rifle Troop (M113)(U)

#### ANNEX B — Objective 2 (continued)

##### b. Blocking and destruction.

Units employing the M113 can perform either blocking or destruction missions. In blocking positions vehicles should be concealed (see Paragraph 2a(1), Annex B, Monthly Test Report Number 2) and mutually supporting. Dismounted troops should cover areas that cannot be reached by vehicular fire. Destruction operations can be performed either mounted or dismounted. The M113 is capable of delivering a large volume of fire and assaulting and closing with insurgents. (See Annexes F and G, this report.)

##### c. Security.

The M113 has been used to secure roads, areas, and installations (see Paragraph 2b, Annex B, Monthly Test Report Number 2) and is presently being used to secure an airfield in Zone D. In an insurgent type of war, M113s can be used on security missions in the same manner as light tanks (US armored cavalry reconnaissance squadrons) were used during World War II. However, such use of the M113 in RVN does not take full advantage of the vehicle's versatility.

##### d. Reconnaissance.

Units equipped with the M113 are particularly suited to accomplish most ground reconnaissance missions in RVN. (See Paragraph 2c, Annex B, Monthly Test Report Number 2.)

##### e. Amphibious operations.

M113s have participated in amphibious operations moving 500 meters from ship to shore through two foot waves (see Paragraph 2d, Annex B, Monthly Test Report Number 2). M113s can negotiate most waterways if crews are well trained in field recovery expédients as shown in appendix 2, Annex B, Monthly Test Report Number 1.

##### f. Extended operations with aerial resupply.

No information.

##### g. Combined operations with Armored Cavalry Reconnaissance Troops M114)

No information.

##### h. Combined operations with armed helicopters.

No information.

#### 3. (C) Finding.

a. The M113 has excellent cross-country capabilities in all areas of RVN except in dense jungle and steep mountain areas.

b. The M113 can be used as a mounted combat vehicle.

c. Mechanized rifle troops are capable of dismounted action with or without fire support from the M113.

d. M113s can be employed in night attacks.

e. M113 platoons can be detached from the mechanized rifle troop for separate actions of short duration.

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Monthly Test Report Number 3 — Mechanized Rifle Troop (M113)(U)

ANNEX B — Objective 2 (continued)

f. Radio-telephone communications would be more effective if platoon operated on channels separate from the troop command channel.

g. Units need retraining periodically (approximately every six months) in basic military fundamentals, especially gunnery.

h. All-around local security is necessary at all times, especially during halts and hours of darkness.

i. Forced marches under cover of darkness would be the best means of moving to a distant point for an attack.

j. Units employing the M113 can perform blocking and destruction missions. Because of its firepower and mobility, the M113 is particularly suited to destruction missions.

k. Mechanized rifle troops can perform security missions similar to those of US armored cavalry reconnaissance squadrons; however, such missions do not normally make best use of the vehicles's versatility.

l. M113 units are particularly well suited to ground reconnaissance missions in RVN.

m. The M113 can be used in amphibious operations either from ship-to-shore or can be landed on shore. In addition, quasi-amphibious operations can be conducted over or across most water areas in RVN.

n. The M113 can be used in a show-of-force role.

#### 4. (C) Summary.

Employed in counterinsurgency roles in Vietnam, the M113 can perform most of the missions normally accomplished by light tanks and  $\frac{1}{2}$ -ton vehicles operating on flat or rolling terrain like that found in the USA or Central Europe. Also, the M113 can negotiate water obstacles, traverse inundated areas, and can deliver a squad of riflemen on an objective while protecting the squad from small arms fire, fragments, and flash burns.

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ANNEX C — Objective 3 (Logistical support requirements)

1. (C) Objective.

To determine the logistical support requirements for units and individual vehicles when operated in a counterinsurgency role in the Republic of Vietnam.

2. (C) Discussion.

a. Maintenance.

(1) First echelon (driver) maintenance is outstanding. On-equipment materiel (OEM) used in performance of this maintenance is adequate. New vehicles and a sound program of instruction have brought about pride in proper maintenance on the part of the driver and other members of the rifle squad. This outstanding maintenance contributed to a very low mortality rate for vehicle major assemblies.

(2) Second echelon maintenance is performed by mechanics of the rifle troops and of the Squadron Headquarters and Service Company. The number of mechanics and the state of their training is sufficient for performance of this echelon of maintenance.

(3) Third echelon maintenance is performed by the 45-man Track Vehicle Repair Team, which is attached to the squadron. Five mechanics from this team are attached to each mechanized rifle troop. The team also has a "built-in" 3rd echelon supply capability. This concept of 3rd echelon support is more than adequate to support the needs of the units.

(4) Fourth echelon maintenance is accomplished at the service center in each Corps area. Fifth echelon maintenance can be accomplished by the 80th Ordnance Depot in Saigon. Because of the low mortality of major components, no rebuild program has been planned.

(5) Major maintenance problems have involved the following parts. Full discussion of the causes of these components failures is contained in Paragraph 2a(6), Annex C, Monthly Test Report Number 1 and Paragraph 2a(3), Annex C, Monthly Test Report Number 2.

- (a) Starter - FSN 2920-784-1708
- (b) Track shoe - FSN 2530-690-2682
- (c) Left cargo hatch hinge - No FSN
- (d) Shroud - FSN 2530-629-8001
- (e) Cover, plate, hub - FSN 2530-714-6155
- (f) Radiators - FSN 2930-679-9748
- (g) Fuel cell access panel cap screws - M535298-1

In addition to the foregoing, two other components have failed in large quantities.

(a) Batteries - FSN 6149-057-2554. One hundred and fifty eight batteries have had to be replaced so far. It was thought at first

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## ANNEX C -- Objective 3 (continued)

that this was caused by improper operation of the voltage regulator or the vent holes of the filler caps being plugged up. These probable causes were refuted by subsequent investigation. It is now thought that the vibration of the vehicle causes the batteries to fail internally.

(b) Warning Lights. -- FSN 6240-266-9940. These 24-volt lights have been failing frequently. It is felt that this is caused by excessive vibration imparted to the warning light panel.

(6) The Unsatisfactory Equipment Report (UER) system has been completely inadequate in the RVN. Neither RVN nor the American advisors have supported the system. Only two UERs have been submitted to date.

(7) The allowance of special maintenance tools appears to be adequate. Special items to assist in recovery operations are shown in Annex B (Inclosure 2, Appendix 2), Monthly Test Report Number 1.

(8) Formal maintenance training is given at several ARVN schools.

(9) Each new item of tank-automotive equipment provided to ARVN should be accompanied by a team of military experts for at least six months. This would aid greatly in the initial "break-in" period of the vehicle. A full discussion of the qualifications of each team is contained in Paragraph 2a(5), Annex C, Monthly Test Report Number 2.

### b. Supply

Repair parts supply has been a problem since the vehicles arrived in the RVN. Initial provisioning was not based on mileage that would accrue under combat conditions, yet, in the combat situation of Vietnam, each of the vehicles traveled an average of 500 miles per month. Consequently, many repair parts programmed to support the first six months of operation were exhausted quickly. Another cause of the shortage of repair parts was the fact that common parts were not sent as part of the initial supply provision. Some of these parts are not stocked in Vietnam. As a result, parts support was on a "hand-to-mouth" basis. The repair parts situation could be improved by requisitioning based on forecasts developed from a technical inspection of a random sampling of vehicles. This method is considered to be a resourceful way to manage supplies. A list of high mortality parts derived from a technical inspection of this kind is contained in Annex C, Appendix 1, Monthly Test Report Number 1.

(1) The ARVN supply system is similar to that followed in the U.S. Army. Parts are stocked according to load lists and requisitioning objectives. Organizational supply is backed up by the supply section of the attached track vehicle repair team. They, in turn, are supported by a Corps Service Center. Service Centers draw their supplies from the 20th Ordnance Storage Depot in Saigon.

(2) An engineering estimate of the predicted life of the more critical components, derived from vehicle testing, would aid greatly in forecasting future requirements, particularly during wartime operations in which mileage accrues too fast to develop usage factors and to submit requisitions accordingly.

(3) POL. Resupply of gasoline has not been a critical problem. During actual operations against the insurgents gasoline resupply has not

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## ANNEX C — Objective 3 (continued)

been necessary because of the short duration of contact and the short distance between the POL point and the objective area. Vehicles are refueled from 55-gallon drums or 5-gallon cans normally transported by wheeled vehicles to the training area. Resupply has been affected, on occasion, by river boat with the POL point set up along the bank of a canal.

(4) Ammunition. Each vehicle carries a basic load of 1800 rounds for its .50 caliber machine gun. Resupply can be effected through established Class V supply points or by helicopter on site. On most operations, basic loads were not exhausted during the brief period of contact with the insurgents. The AP BAC operation was the only one known to have required ammunition resupply.

(5) Medical. Men injured or wounded during operations are treated on site by an attached 5-man medical team. Helicopter evacuation is then requested. During a recent operation, the M113s were used to transport walking wounded and dead insurgents from a swamp area to an aid station at regimental headquarters. The TOE for the mechanized rifle troop authorizes four litter kits per M113. Kits have been requisitioned, but not yet received.

### 3. (C) Findings.

- a. Vehicular maintenance, particularly first echelon, is outstanding.
- b. Third echelon maintenance and supply performed by a unique, small, flexible team is working satisfactorily.
- c. The most prominent parts failures are starters, track shoe inner pads, cargo hatch hinges, shrouds, radiators, fuel cell access panel cap screws, batteries, and warning lights.
- d. Unsatisfactory Equipment Reports are not being submitted.
- e. Introduction to the ARVN of new equipment, such as the M113, would be greatly facilitated by providing a team of military experts to accompany each new item for at least six months.
- f. Initial provisioning of repair parts for the M113 has been inadequate.
- g. Provisioning of common as well as peculiar parts is needed for all new ARVN tank-automotive equipment.
- h. An engineering estimate of component life would aid in forecasting parts requirements in a fast-moving situation.
- i. Gasoline and ammunition resupply is normally accomplished at established supply points.
- j. M113s can be used to evacuate injured and wounded men.

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ANNEX D -- Objective 4 (Effects of heat on personnel)

1. (U) Objective.

To determine the effects of hot weather on the proficiency and effectiveness of personnel within the carrier.

2. (U) Discussion.

In all operations observed there have been no indications that hot weather adversely affects individuals within the carrier (See Annex D, Monthly Test Report Number 2.)

3. (U) Findings.

Hot weather has no adverse affect on the proficiency and effectiveness of individuals within the carrier.

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ANNEX D

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### ANNEX E -- Objective 5 (Vehicle performance)

#### 1. (C) Objective.

To determine overall vehicle performance under conditions prevalent in the Republic of Vietnam, to include:

- a. POL consumption.
- b. Operating range.
- c. Ground mobility and agility in mountains, jungles, and inundated areas.
- d. Water mobility and agility to include entering and leaving canals and rivers.

#### 2. (C) Discussion.

a. POL consumption. Information obtained during the test indicates a consumption rate of 1.7 miles-per-gallon. (See Paragraph 2a, Annex E, Monthly Test Report Number 2.)

b. Operating range. On the basis of the 1.7 mile-per-gallon rate and the fuel capacity of the vehicle, the operating range is 136 miles.

c. Ground mobility and agility in mountains, jungles, and inundated areas.

(1) Use of the M113 in mountainous areas is primarily as a mode of transportation. Even in this respect, the extremely rugged, rocky terrain on the northern part of the RVN has restricted the use of M113s. Sheer cliffs, sharp drops, and defiles, together with huge rocks and heavy underbrush concealing ruts or holes, make the terrain almost impossible to negotiate. This disadvantage, plus the increased use of mines by the insurgents on the limited logical avenues of approach, indicates that dismounted troops are preferable to mounted troops in such areas.

(2) M113s are of little use in heavy jungle when trails must be cleared for passage. The slow rate of march, susceptibility to ambush, tank traps, and mining severely limit their use. Troops on foot can proceed at a much higher rate of speed and can perform search-and-clear operations more effectively.

(3) In inundated areas, the M113 has been highly successful in operations against insurgents. High-speed operations through hard-bottom rice paddies, together with long, broad fields of fire, have characterized operations in this area. Problems have been encountered in soft mud where the vehicles sometimes get bogged down. The most difficult task, however, is in crossing the drainage canals that separate the rice paddies. Much time and operational momentum is lost in locating and preparing crossing sites. Full discussion of the use of the vehicle in inundated areas is contained in Annex E, Paragraph 2(c)(4), Monthly Test Report Number 2.

d. Water mobility and agility, to include entering and leaving canals and rivers.

(1) In water operations the M113s have been maneuverable and responsive to steering controls. Maximum stream velocities have been estimated to be as high as six to seven miles-per-hour. Problems of exiting over

ANNEX E

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ANNEX E -- Objective 5 - (continued)

Extreme slope angles and poor bank conditions are discussed in Appendix 2, Annex E, Monthly Test Report Number 1. Choppers and ground anchors will be tested in the RVN in late May. It is expected that these will aid in self recovery from bogs and drainage canals. A special report will be submitted following the completion of these tests.

(2) Descriptions of field expedients for crossing canals and rivers are contained in Monthly Test Reports Number 1 and 2. A proposed sophistication of the push pole expedient is described in Appendix 4, Annex E, this report.

(3) A proposed crossing expedient is shown in Appendix 3, Annex E, this report. This will be tested when available.

(4) M113s used in ship-to-shore operations have successfully negotiated two-foot waves.

## c. Vulnerability.

(1) Two vehicles have been penetrated by enemy 57mm HEAT rounds. Although the vehicles remained operational, one driver was killed. The effect of these incidents upon the morale and confidence of ARVN personnel involved in this operation appeared to be negligible. For complete details see Annex E, Paragraph 2e(1), Monthly Test Report Number 1.

(2) Penetration of M113 armor plate by .50 caliber fire, believed friendly, has been noted on two occasions. Although many M113s have been struck by insurgent small arms fire, no penetration has been reported.

(3) Three vehicles have been rendered inoperational by insurgent mines. None of the three can be repaired because of extensive damage to the hull and suspension components. In two cases, homemade, electrically-detonated mines were used. The other vehicle ran over a factory-made, pressure-type mine. For full details see Annex E, Paragraph 2e, Monthly Test Report Number 1 and Annex E, Paragraph 2e, Monthly Test Report Number 2. Mechanized rifle troops should take the following precautions whenever possible to avoid the mine threat:

(a) Use different routes to and from objective areas.

(b) Stay off roads and heavily travelled off-road areas.

(c) Avoid bivouacking close to intended routes of march (e.g., coverage of heavily jungled or forested areas).

(4) During one operation, seven machine gunners were killed or wounded. Subsequently, steel shields fitted to accept the .50 caliber machine gun have been fabricated and mounted on the cupola. The use of these shields has not yet been fully evaluated. (See Photo 1A, Appendix 1, Annex E, Monthly Test Report Number 1.) Enclosed cupolas mounting single and twin caliber .30 machine guns will be received in the RVN for evaluation in the near future.

## 3. (C) FUELING.

a. Fuel consumption averages 1.7 miles-per-gallon. This closely approaches the rate obtained during CONUS troop tests of the M113.

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## ANNEX E -- Objective 5 (continued)

- b. The M113 is only marginally useful in mountains or thick jungles.
- c. The M113 has been highly successful in inundated areas.
- d. Canals and streams with steep, muddy banks are difficult to negotiate but success can be achieved in most instances through initiative, aggressive leadership, and use of proven field expedients.
- e. The M113 is highly maneuverable when swimming.
- f. M113s can be used in ship-to-shore operations through seas with two foot waves.
- g. The M113 is vulnerable to mines and 57mm HEAT rounds.
  - (1) Three vehicles have been damaged beyond repair by mines.
  - (2) Two vehicles hit by 57mm HEAT rounds were damaged, but remained in operation.
- h. Precautionary measures are necessary for avoidance of probable areas of mine emplacement.
- i. Insurgent small arms fire has been ineffective against the M113.

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)

ANNEX F -- 7th Division Operation in Dinh Tuong Province, 17-18 April 1963.

## 1. (C) General.

On 17 and 18 April 1963, the 4th Troop, 2d Cavalry Squadron, of the ARVN 7th Infantry Division participated with other RVN units in an operation near the western boundary of DINH TUONG Province. This report covers only the activities of the 4th Troop, as recorded and evaluated by an ACTIV observer who witnessed the operation.

## 2. (C) Participating units.

4th Troop, 2d Cavalry Squadron (14 M113s, 145 men)

2d Battalion, 10th Regiment

Kien Phong Civil Guard Battalion

3d Marine Battalion

two Ding Tuong Civil Guard Companies, (designation unknown)

2d Troop, 2d Cavalry Squadron (M-8 Armored cars)

B Battery, 7th Artillery (105mm howitzer)

one Battery (designation unknown), 36th Artillery (155mm howitzer)

Headquarters, 7th Division.

## 3. (C) Plan of operation.

The 7th Division was to attack Viet Cong forces in the area northeast of SADEC (WS 8438). (According to intelligence estimates, 400 hardcore Viet Cong were occupying the area. At 0700 two of the 7th Division battalions were to attack from the west, one battalion from the south, and three rifle companies were to land by helicopter in the north at 0845 and attack south. One armored car company was to screen the road on the south. (see Appendix 1.)

## 4. (C) Description of the operation.

a. The 4th Troop, 2nd Cavalry Squadron arrived at its home station in MY THO (XS 5045) on 2 LCMs at 1000 on 16 April, after ten days of operations near the Cambodian border. The troop commander was instructed not to unload his vehicles as he was to participate in a new operation and would depart late that day. The vehicles, therefore, received little or no maintenance between missions. An M113 with flamethrower installed was disembarked for recharging. Troops were allowed to go ashore to obtain clean clothing and rations.

b. After receiving his orders at 7th Division Headquarters, the troop commander issued an order to key personnel at dockside at 1955. The order appeared to be complete; there were no questions.

c. The landing craft were to transport the unit up the MEKONG River from MY THO to CAI THIA (XS 0542), a distance of about 55 km. The craft were to depart at 2030, allowing time for contingencies. However, they did not depart until 2300, apparently as a result of a misunderstanding between the ARVN forces and the Navy Transport command.

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)

ANNEX F -- (continued)

d. The craft arrived at CAI THIA at 0430 on 17 April. It was very dark; the tide was out; and no suitable landing site could be found. Apparently no thought had been given to tidal conditions or the location of a suitable landing site. At 0515 the decision was made to continue 11 km up the MEKONG River to the ferry landing on the VINH LONG Highway (WS 9836).

e. The troop disembarked at the ferry landing between 0700 and 0720 (see photographs, Appendix 2) and at 0730 proceeded northeast on Highway 4 toward the LD. At 0810, after a road march of 12 km, the troop crossed the LD. The attached rifle company met the troop on Highway 4 near the LD and mounted the carriers.

f. The units reached the first canal (XS 024426) at 0820 and began crossing operations. Progress along the axis of advance was made by a series of canal crossings and rapid movement between canals. The M113s bridged the canals with balk aluminum sections or crossed them by towing and pushing one another. Some crossing sites were improved by the use of cut brush and logs. Along the route the troop commander dispatched platoons to check suspicious areas. At 0900 an OE-1 aircraft arrived in the area. Contact with the aircraft was established through the US advisor's TRC-7 radio. The aircraft scouted for the troop the rest of the morning, providing valuable information on the best routes for the M113s to follow.

g. Contact with the enemy was made during the morning by the units attacking from the west and south and by the air-landed marines in the north. Air strikes set large fires on Objective 4. Reports of 400 VC in the area of Objective 4 and B were received.

h. At 1230 the troop reached the northern end of Objective A. The troop commander inspected the main canal at WS 983502 for crossing sites to the west. He decided a crossing would be very difficult and requested a change in orders that would send the Marine battalion to Objective B. This change was approved and the troop proceeded to clear Objective A from north to south. In order to do this, the organic and attached infantry troops were dismounted and placed under the control of the troop executive officer. The dismounted troops moved south in an overgrown area along both sides of the canal. The carriers moved in an open area east of the canal under control of the troop commander and prepared to support the infantry. At 1500 a small group of VC was sighted at WS 984490. The carriers opened fire and gave chase. Three VC were killed. One locally made shotgun was captured, and documents identifying the 514th VC Battalion were found on one body. During this engagement a considerable amount of activity was noted about 3000 yards to the south in the vicinity of WS 990455, where a civil guard company was engaged with a group of VC. Artillery and air strikes were employed there.

i. At 1630, the Corps Commander landed in a helicopter and ordered the entire unit to cross the main canal at Objective A and reinforce the Marines moving toward Objective B. The troop commander took the APCs back to a crossing site he had previously selected at the northern end of Objective A. The infantry continued on foot to the south and crossed to the west bank of the canal.

j. The canal crossing was completed by 1800. As the APCs moved southwest near WS 965500, several groups of VC were sighted 800 to 1500 meters away in rice fields to the south. The VC were taken under fire by .50 cal machine guns and, after a rapid crossing of a small canal at 1830, were pursued on a broad front until 1900. This action resulted in five VC killed, eleven VC

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)

## ANNEX F -- (continued)

captured and two more shotguns taken. The organic and attached infantry remounted the carriers after this action.

k. As a result of these activities, it was determined that a VC unit was located in dug-in positions in the vicinity of WS 977470. At 1900 the troop was ordered to attack that position. In the meantime, a reserve battalion had been committed and was located on the east side of the canal opposite the VC position. The troop commander had to coordinate by radio with the reserve battalion to insure that it would seek protection when the attack was launched toward it from the west. This coordination took some time to accomplish. While waiting for the assault, the troop received mortar and small-arms fire from the VC position. The carriers and attached infantry were deployed in line formation in the rice paddies to the west of, and about 300 meters from, the VC position. The organic infantry was mounted and ready to fire from the APCs; the attached infantry was dismounted and ready to follow the M113s for protection. The attack began at 1945. By then it was quite dark. The flamethrower track was sent forward to fire at the VC positions as the other M113s slowly advanced. The flamethrower functioned well, but drew a considerable amount of VC fire. The driver would not move close enough to get within flamethrower range of the VC positions, and all of the bursts were short. The flamethrower did, however, set several haystacks on fire, providing some illumination. The APCs with the infantry behind them moved slowly toward the VC positions. (A spectacular effect was created by the tracers of the .50 caliber machine guns and the flamethrower spouting fire.) The 57mm recoilless rifles and 81mm mortars were fired at the VC position. The VC delivered a moderate volume of automatic and small arms ammunition and fired mortars and rifle grenades against the attacking forces. The VC fire seemed generally high, although seven of the carriers were hit. Tracers from the VC automatic weapons could be seen going west. About 100 meters from the VC position, the APCs were stopped by a small canal. However, the infantry moved across and into the VC position area. By then, the VC force was withdrawing and was able to escape along the canal to the north. Pursuit was not attempted; however, 81mm mortar fire was delivered along the canal to the north. The position was secured at 2200 and was occupied for the rest of the night. The M113 troop was formed in a perimeter in the rice paddy adjacent to the objective.

1. An inspection of the VC position the following morning revealed about 40 newly-dug foxholes and three machine gun positions. One VC body was found, and quite a bit of blood stained the ground around the defenses. Captured documents identified the 514th and 261st VC hard-core units. Villagers reported that the positions were dug during the previous day and a half. The ARVN reserve battalion on the east side of the canal was not hit by fire that could be attributed to the mechanized unit. No casualties were suffered by the mechanized rifle troop or the attached infantry.

m. On 18 April the troop received orders to proceed to its home station. The troop proceeded to Highway 4 on the route shown in Appendix 1. Due to a series of difficult canal crossings, the troop did not reach the highway until late in the day. Once on the highway, the troop traveled the 55 km to its garrison in MY THO in two hours. There were no breakdowns, and the troop closed at 1845.

### 5. (C) Summary of observations.

a. Employment of the M113-mounted flamethrowers.

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Monthly Test Report Number 3 — Mechanized Rifle Troop (M113)

ANNEX F — (continued)

The flamethrower should not be used alone to spearhead the assault of a position. Other M113s should advance with it to give it covering fire and to lessen the probability of the enemy's concentrating his fire on the flamethrower. The crew of the flamethrower would probably be more aggressive if accompanied by other M113s.

## b. Canal crossings.

It takes too much time to cross canals. The time can be reduced by:

(1) Maximum utilization and control of the personnel available in the company to construct crossing sites. At present, a small crew works on the site while most of the men sit and wait. The greatest possible number of men should work at the crossing site, and the rest should cut and gather brush and logs.

(2) Use of explosives to blast entrances and exits. No explosives were used on this operation.

(3) Development of a light, assembled span for crossing narrow canals. The aluminum balk is difficult for the Vietnamese to handle and takes time to assemble; when assembled, it appears to be heavier than required. A span constructed as shown in Appendix 3 was suggested by the troop advisor and should be fabricated for experimental use.

(4) Developing a suitable push pole system which will enable one M113 to push another across a canal. Timbers are successfully used for this now. The system could be improved by placing simple sockets on the front and rear of the M113 and by using metal poles rather than timbers. (See sketch, Appendix 4.)

(5) Developing an M113-launched span similar to the armored vehicle launched bridge (AVLB). The span must not interfere with the amphibious capabilities of the vehicle and should be a kit that can be installed on any M113.

## c. Route reconnaissance.

The use of the OE-1 aircraft to scout for the best route for the M113s was of great assistance. However, an observation helicopter would be much more effective as it would enable the unit commander to personally scout for and select his routes by having the helicopter land and pick him up.

## d. Effective gunnery.

The .50 caliber machine gun is capable of hitting running VC at long ranges. Although there were such opportunities during the operation, no VC were observed to have been hit at long ranges. The gunners did not take deliberate, accurate aim at the target. They fired a burst in the general direction and then attempted to walk the fire into the target while looking over the sights at the strikes. More .50 caliber gunnery training is indicated.

## e. Sealing of VC withdrawal routes.

The VC will escape unless all routes of withdrawal are sealed.

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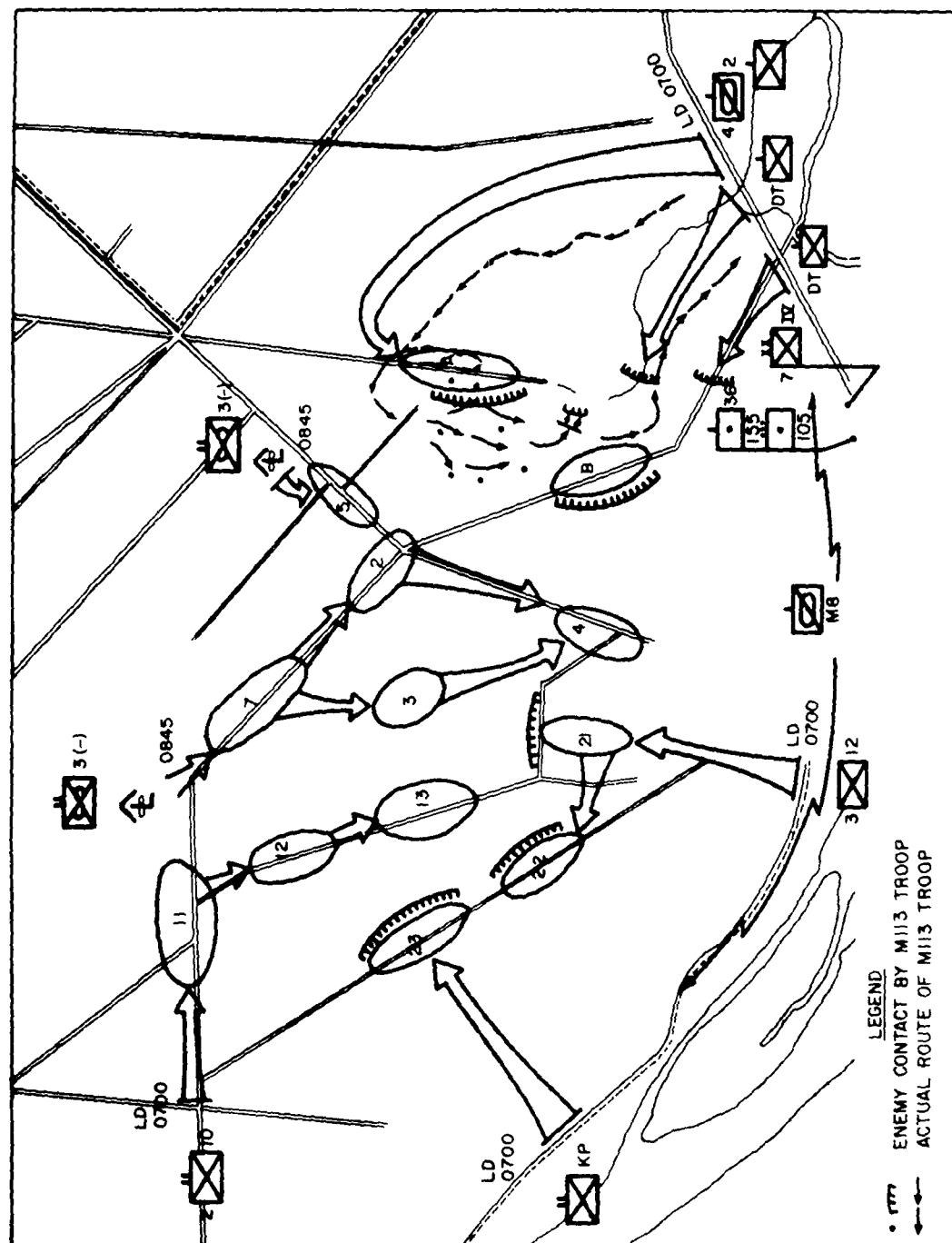
Monthly Test Report Number 3 — Mechanized Rifle Troop (M113)

ANNEX F — (continued)

f. Use of M113s in night attacks.

M113s can be effectively used in a night attack. Inspection of the VC position area the morning after the attack revealed that the .50 caliber machine gun fire had covered the target.

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)  
APPENDIX 2 to ANNEX F

PHOTOGRAPHS OF 7TH DIVISION OPERATION  
IN DINH TUONG PROVINCE  
17-18 APRIL 1963

APPENDIX 2 to ANNEX F

APPENDIX 2 to ANNEX F



APCs on an LCM  
 move up the Mekong  
 River. There were  
 eight M113s on this  
 LCM.



M113 troop disem-  
 barks. Unloading  
 required about five  
 minutes. The LCM  
 in the background  
 had previously un-  
 loaded.

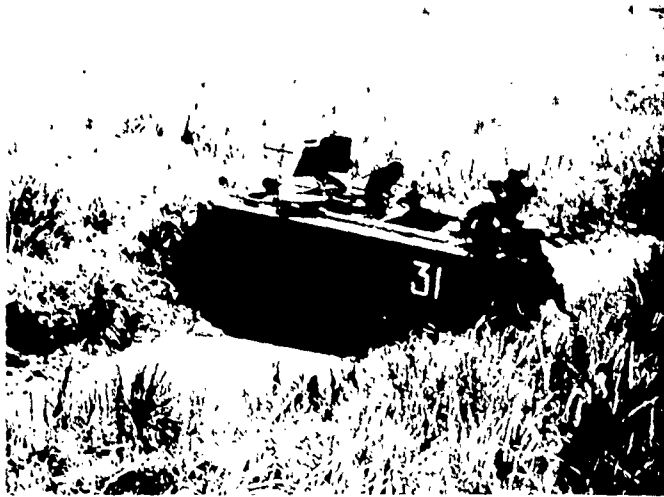


LCMs were escorted  
 by river gunboats  
 like the one in  
 the background.

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Monthly Test Report Number 3 - Mechanized Rifle Troop (M113)

APPENDIX 2 to ANNEX F (continued)



M113 stuck in a canal. The APC tried to buck through at high speed but could not breach the far bank.



Narrow canal spanned with aluminum balk. Note tracks of APC that had crossed the canal previously.



APC passes over a marsh area. The M113s had no difficulty in crossing this terrain.

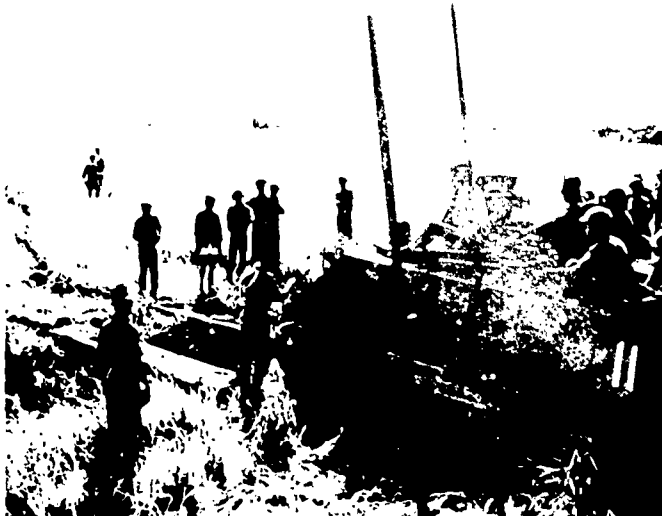
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Monthly Test Report Number 3 - Mechanized Rifle Troop (M113)

APPENDIX 2 to ANNEX F (continued)



M113 stuck in a canal. The APC tried to buck through at high speed but could not breach the far bank.



Narrow canal spanned with aluminum balk. Note tracks of APC that had crossed the canal previously.



APC passes over a marsh area. The M113s had no difficulty in crossing this terrain.



Troop advisor  
talking to OE-1 scout  
on TRC 7 radio.



Troop commander  
and advisor inspect  
captured VC shot-  
gun. Attempts to  
fire this homemade  
weapon, using cap-  
tured ammunition,  
failed.



IV Corps commanding  
general and MACV  
J-3 advisor land by  
helicopter to give  
troop new orders and  
take troop commander  
on a reconnaissance  
flight.



M113 enters canal.  
The crossing site  
had been prepared  
and used six months  
previously.



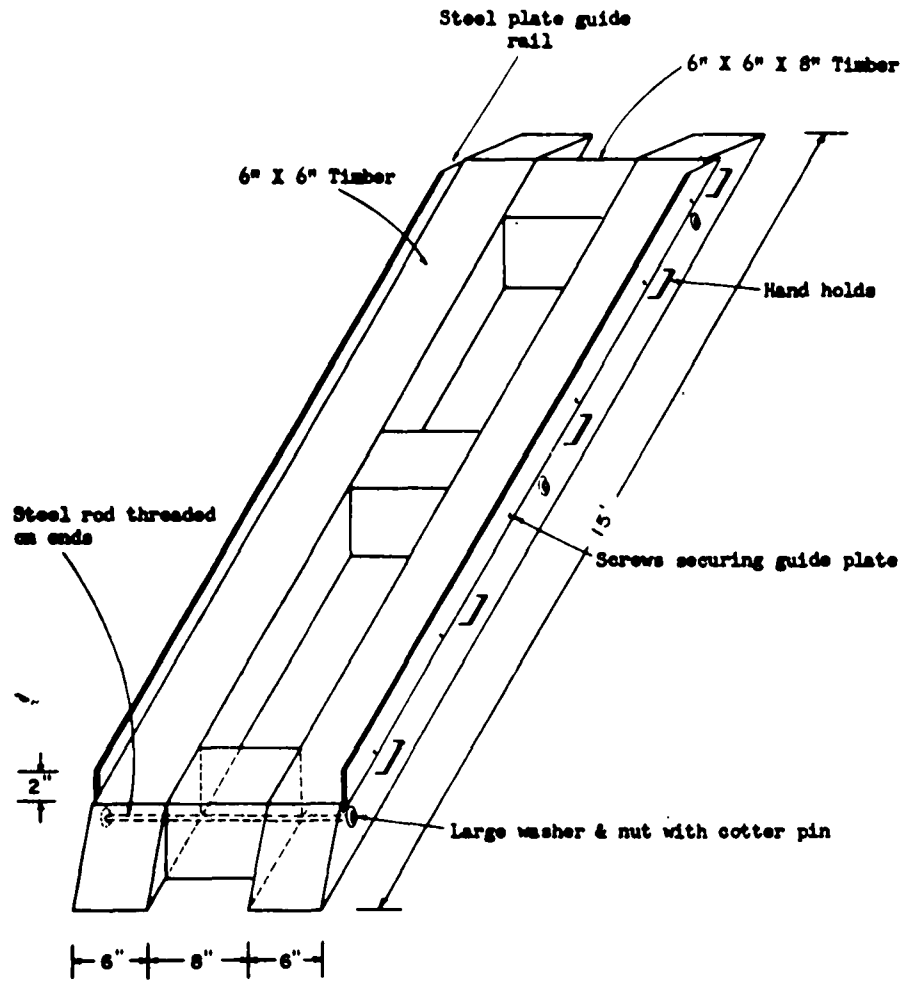
M113 in Mid-stream.  
Soldier in foreground,  
stripped to shorts,  
is working on the  
exit site.



VC prisoners taken  
the previous day  
talk with ARVN  
soldiers. These  
prisoners received  
excellent treatment  
and were fed. Man  
in foreground was  
wounded in the leg.



PROPOSED CONCEPT FOR EXPEDIENT CANAL CROSSING TRUSS



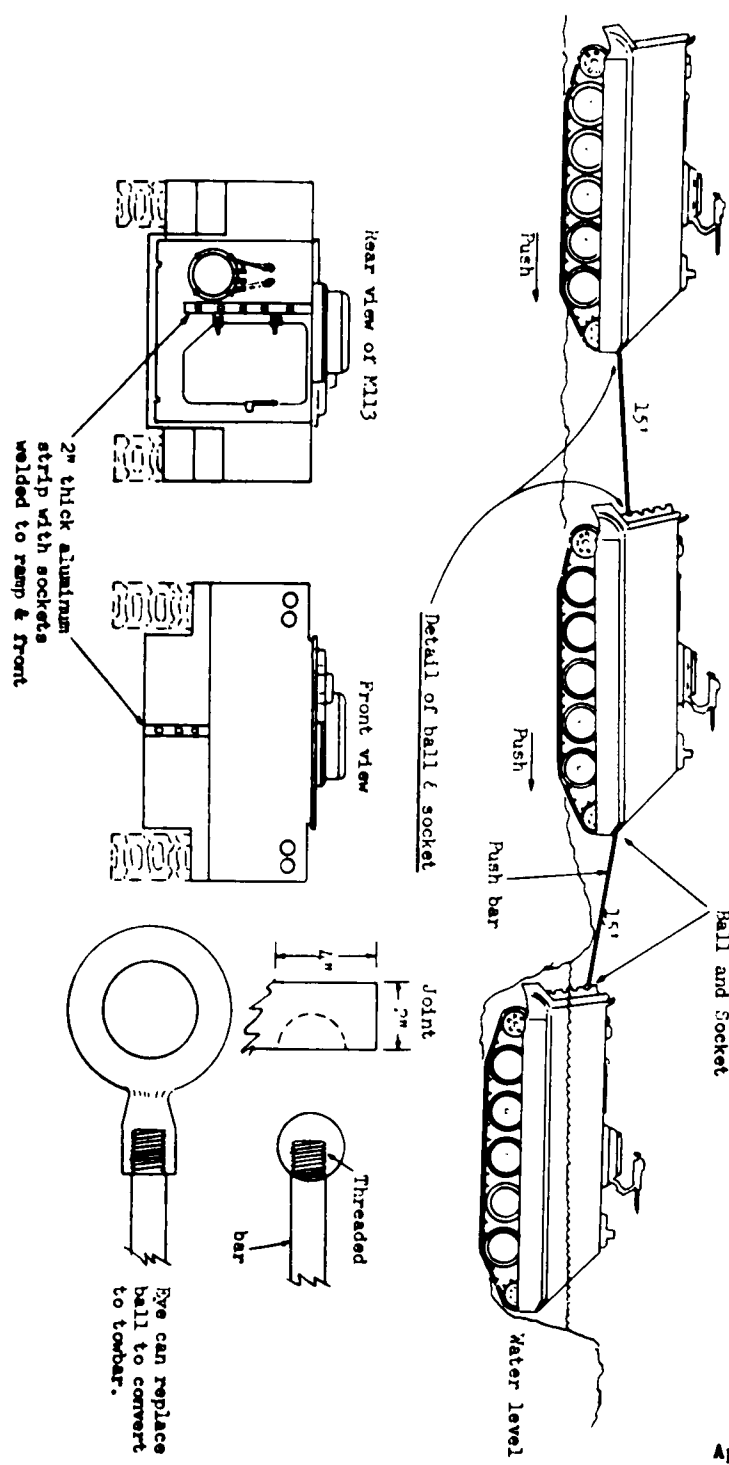
Basis of issue - 6 per Company

APPENDIX 3 to ANNEX F

APPENDIX 3 to ANNEX F

# PROPOSED M113 PUSH-POLE SYSTEM

Appendix 4  
ANNEX F



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ACTIV-GM

Monthly Test Report Number 3 -- Mechanized Rifle Troop (ML13)

ANNEX G - 25th Division Operation in Quang Ngai Province, 19-20 April 1963

## 1. (C) General.

On 19 and 20 April 1963, the 5th Mechanized Troop, 3rd Armored Cavalry Squadron attached to the ARVN 25th Infantry Division participated with another RVN unit in an operation in the vicinity of QUANG NGAI. This report covers the activities of the 5th Troop, as recorded and evaluated by an ACTIV observer who witnessed the operation.

## 2. (C) Participating units.

5th Mechanized Troop, 3d Armored Cavalry Squadron

2d Battalion (--), 47th Infantry Regiment

One L-19 and two Mohawk aircraft for air cover and observation

## 3. (C) Plan of operation.

The 5th Troop was to occupy a blocking position in the vicinity of grid square 6852 (Point A on map, Appendix 1) not later than 0800 on 20 April. Elements of the 2d Battalion (--) were to launch a coordinated attack from the south and push the VC north. Artillery was to be available on call.

## 4. (C) Description of operation.

a. From 15-17 April, the 5th Troop, 3rd Cavalry Squadron, attached to the 15th Infantry Regiment, 9th Division was operating about 50 km south of CHE REO near BA MA LA. Its first mission was completed at 1700 on 17 April. During the evening of 17 April the troop commander was ordered to move into an assembly area near the 15th Regiment CP. On 18 April it was to maintain equipment and on 19, 20, and 21 April continue operations north of BA MA LA.

b. At 1200 on 18 April, the troop commander was notified through 15th Regiment by the ARVN II Corps Commander that the 5th Troop was detached from the 15th Regiment. The troop was ordered by II Corps to move as soon as possible to the vicinity of QUANG NGAI for further attachment to the 25th Infantry Division.

c. At 1845 the troop started to move on a dirt road to TUY HOA, about 80 km away. They arrived at TUY HOA at 2140 and bivouacked overnight.

d. The troop left TUY HOA at 0800, 19 April by coastal highway and arrived at QUI NHON at 1200 where the ML13s were refueled from 55-gallon drums which had been transported from PLEIKU by a 2½-ton truck. (The truck had been escorted by two machine gun jeeps.) The march resumed about 1400 under Mohawk air cover. Throughout the march the troop commander received instructions by organic CW radio from Headquarters, II Corps.

e. The troop encountered a temporary bridge at BONG SON over the LIA GIANG river. The troop commander quickly selected a waterborne crossing site for the ML13s. Estimated width of the river was 300-400 meters. The ML13s entered the water and completed the crossing without incident in about 45 minutes. About 100 civilians watched the operation.

f. The march continued. At 2000 on 19 April, the troop commander was met by a representative of the 25th Infantry Division about 20 km south

\* Refers to map sheet QUANG NGAI, 1:100,000.

ANNEX G

ANNEX G

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)

ANNEX G - (continued)

of QUANG NGAI. The troop bivouacked on the highway near 724573 (Point B), having covered a distance of about 385 km.

g. The troop moved south from the bivouac area (Point B) at 0645 on 20 April, departing from hard-top road at 731801 (Point C). Movement across rice paddies enroute to the blocking position was rapid, considering the type of the terrain that had to be crossed.

h. A deep canal was encountered at 692798. While the troop was crossing the canal, the troop commander was informed by RVN Self Defense Corps and Civil Guard units that an estimated two companies of VC occupied a hill about 25 meters high (hereafter referred to as Hill X) at 685552 and a small village on the south side of Hill X. The troop commander decided to search and clear the area rather than move to the assigned blocking position. A civilian guide was made available to the troop commander by the Self Defense Corps.

i. The troop moved northwest around the base of Hill X. The village at the base of the hill, consisting of about 50 huts, was typical of a village that had been occupied by VC. It had the appearance of a ghost town; there was no sign of life.

j. At 0900 the weapons platoon moved about 200 to 300 meters to the left of Hill X. At this point, small arms fire from the VC position on Hill X was received at the rear of the weapons platoon. Without hesitation the .50 caliber machine guns brought Hill "X" under fire. The troop commander ordered the weapons platoon to clear and occupy the hill without delay. This was done within 20 minutes. From the hill, several VC were fired upon by the weapons platoon as they ran across rice paddies south of Hill X. A document was found and relayed to the platoon leader. The platoon leader said that it was part of the VC order that told VC troops to destroy a strategic hamlet located within the area. The troop commander moved his command track and used Hill X. from which he could observe his entire area of operations, as an OP and base of operations. Small mounted strike forces from squad to platoon size were employed throughout the day to flush and lay a base of fire while other small elements moved in for the kill or capture.

k. Several small hamlets throughout the area were flushed by dismounted troops. A platoon leader and two squads cleared a village consisting of about 50 huts. As VC were flushed from hamlets, or tried to escape across rice paddies, they were taken under fire by .50 caliber machine guns at long range. The .50 caliber fire was effective, as kills were made at 500 to 1000 meters. The staff advisor reported that one VC thought to be an officer (dressed in khaki) was wounded, but escaped into a hut. An effort was made to retrieve the officer but he refused. The hut was set afire, and the VC was burned. His weapons, although burned, were retrieved.

l. Small engagements took place throughout the day. At 1300 an informer reported to the weapons platoon leader. The informer talked a great deal but, according to platoon leader, said nothing of importance.

m. At 1600 three tracked vehicles were dispatched to Hill Y, 6756. The tracks moved from northeast to southwest across the hill. Two VC were captured and one killed in this area. At about 1615 friendly dismounted infantry troops were seen moving north along the foothills in the vicinity of 6754. The 5th Troop commander made radio contact with the commander of the dismounted infantry and asked that they be halted so the 5th Troop could continue operations in the vicinity of Hill Y. The dismounted infantry commander refused and continued his march north.

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)

ANNEX G -- (continued)

n. At the end of the operation the two PWs were taken to the troop CP. Other enemy losses were 9 (possibly 11) killed and an unknown number wounded. Captured enemy materiel included 4 machine pistols, 1 US carbine, 1 US .45 cal pistol, 1 French BAR, 2 MAS-36 rifles, several rounds of ammunition, and a small quantity of medical supplies. There were no friendly casualties; the morale of the 5th Troop was very high. (See photographs Appendix 2).

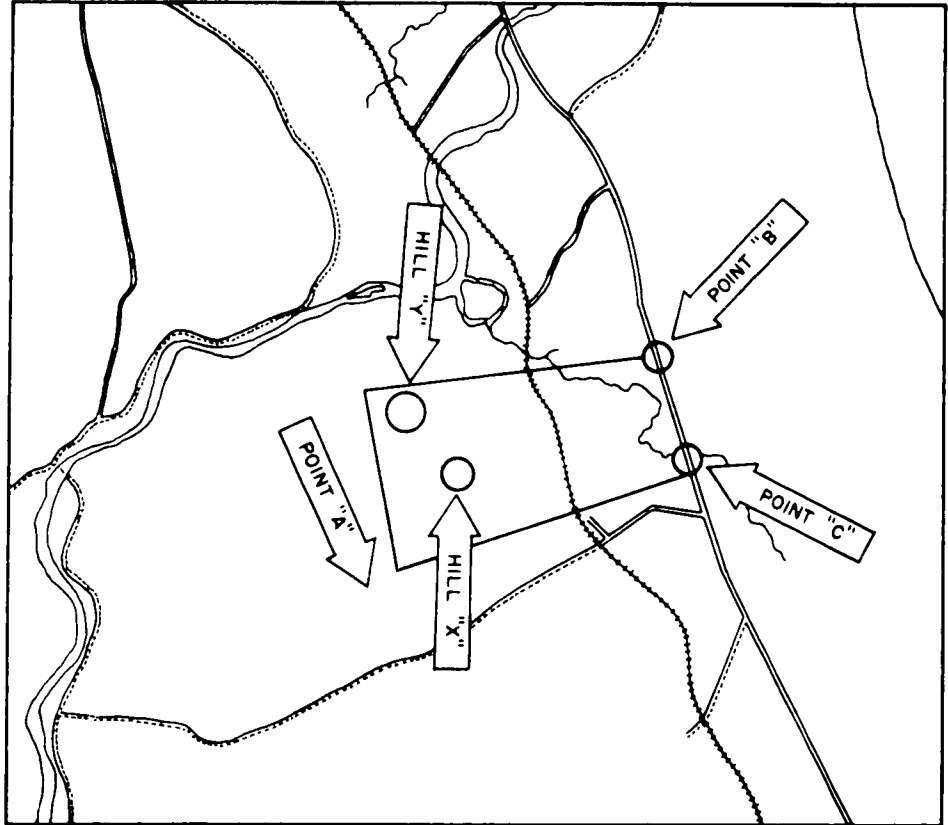
o. At 1715, movement to temporary home base commenced over the same route that was used to enter the area of operations. It was noted that the local population was quite angry during the morning move since rice fields were destroyed by the vehicles, but during the return trip many villagers turned out to cheer the troop.

p. Upon arrival at the bivouac area, the PWs, who appeared to be very hungry, were fed rice. A vehicle equipped with loudspeakers, belonging to the local village, was used to tell the local population what had happened during the day. The PWs and captured material were released to the intelligence team.

## 5. (C) Summary of observations.

- a. Reaction to the original order to move to QUANG NGAI was quick.
- b. The march was well conducted under close control of the troop commander.
- c. Communications throughout the entire operation were excellent.
- d. Maintenance was performed when time and situation permitted.
- e. The river crossing was conducted without delay or incident.
- f. The troop commander requested and made good use of the advice of US advisors.
- g. Supporting weapons (81mm mortars) could not be employed since many friendly hamlets and civilians were located within the area of operations.
- h. Troops dismounted to clear hamlets.
- i. The troop commander's control of the troop by radio from a vantage point was effective.
- j. The employment of fire and maneuver was effective.
- k. The .50 caliber machine gunners' marksmanship was excellent.
- l. Overall response of small unit leaders and morale and discipline within the troop were excellent.
- m. Further driver training is required for traversing canals. This will come as the unit operates within inundated terrain.
- n. There was a lack of local security during the hours of darkness.

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APPENDIX 1 to ANNEX G

APPENDIX 1 to ANNEX G

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Monthly Test Report Number 3 -- Mechanized Rifle Troop (M113)

PHOTOGRAPHS OF 25TH DIVISION OPERATION  
IN QUANG NGAI PROVINCE  
19-20 APRIL 1963

APPENDIX 2 to ANNEX G

APPENDIX 2 to ANNEX G

Two VC prisoners  
confronted by  
ARVN Officer.



VC prisoners.



VC killed by  
.50 cal machine-  
gun fire.





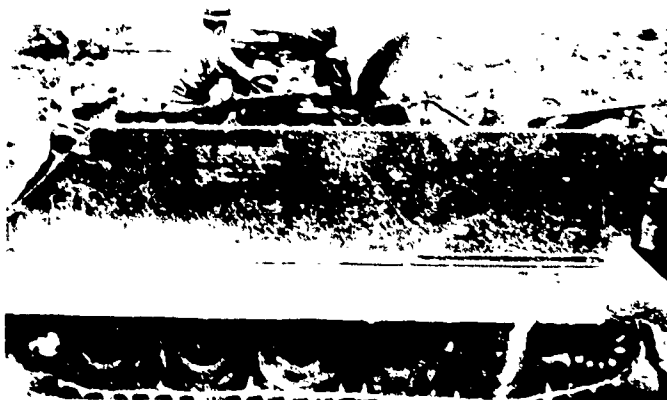
Informer reports  
to 4th Platoon.



M113s move across  
rice paddies to  
objective area.



.50 cal machine-  
gun gunner points  
to suspected  
VC position.



Captured VC  
weapons and  
equipment



Troop CO (left)  
with captured  
VC materiel.



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ACTIV-GM

Monthly Test Report Number 3 - Mechanized Rifle Troop (M113)

ANNEX H - ARVN Organization for combat.

This annex is a true copy of an ARVN document that proposes a change in 1st Armored Battalion organization, i.e., cross-reinforcement of M113s and M114s. Further organizational changes and developments will be included in future reports.

ANNEX H

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ANNEX H - ARVN organization for combat.

REPORT SUBMITTED TO:

LtGen, Chief of ARVN/JGS  
(JGS/G3 - Plan Studying Office)

REPUBLIC OF VIETNAM  
3RD TACTICAL AREA

G3  
Phone # 50494  
No. 496/BMT/VJCT/P3/2

SUBJECT: Establishment of mixed Co's of the 1st Armored Bn.

It is highly reported that:

1. The training and operational practice exercises conducted by the 1st Armored Bn for the 3/1 Recon Co will be completed on 6-4-63. This Co is fully equipped with newly received M114 vehicles. During the period of tng and practice these vehicles shown themselves many limited operational capabilities:

- They have no capability of crossing swampy area, river, canal, and high field dikes like the M113 mechanized vehicles.

- Vehicle crew includes 4 men. Without the infantry carried on it. These men cannot move or pull the vehicle out when it get stuck.

By the above mentioned reasons the M114 Co cannot operate alone.

Furthermore, if other Co's are used with primitive compositions as at present, we shall not take maximum advantages of these vehicles because each type of mechanized equip has its own characteristics.

Therefore a coordination of mechanized vehicles in one company is considered necessary and useful for the operation.

II. As of 10-4-63, 3rd Tac Area plans to harmonize the facilities of the Recon and Mech Co's (M113, M114) to form the following mixed Co's:

1. 2/1 Mixed Co includes: (Chart I)

- Hq Plt (2 AM M.8)
- 2 Recon Plts (12 AM M. 8)
- Mech Plt (3 M.113)
- Recon Plt (6 M.114)

2. 3/1 Mixed Co includes: (Chart 2)

- Hq Plt (2 M.114)
- Recon Plt (6 M.114)
- Support Plt w/81mm mortar (2 M113)
- 2 Mech Plts (6 M.113)

3. 4/1 Mixed Co includes:

- Hq Plt (2 M.113)

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- Support Plt (81 and 57mm gun) (3 M113)
- 2 Mechanized Plts (6 M113)
- Recon Plt (6 M114)

4. 5/1 Mixed Co includes: (Chart 4)

- Hq Plt (2 M113)
- Support Plt (81 and 57mm gun) (3 M113)
- Mechanized Plt (3 M113)
- Tank Plt (5 M24)

Except the 2/1 Mixed Co, other mixed Co's will be reinforced with an Engr Squad of 11 men assigned by the 1st Hq Co.

III. Location:

After the reorganization the units of the 1st Armored Bn will be disposed as follows:

- a/ 1 Mixed Co at TAY NINH
- b/ 1 Mixed Co at BEN CAT
- c/ The 2/1 Co at DONG XOAI
- d/ Reserve units for III Corps will be at HANH THONG TAY and

include.

- Bn Hq, (2 M113 and 2 M24)
- M24 Tank Co (-) (12 M.24)
- 1 Recon Plt (6 AM M8)

IV. Rotation:

The 2/1 Mixed Co will station permanently at DONG XOAI. The 3/1, 4/1, and 5/1 Co's will rotate one another, 2 week in operation and 1 week for maintenance and tng at the Bn home station.

Rotation calendar can be changed following the operational requirements of the TZ.

V. Request ARVN JGS approve this recommendation and put out an early decision so that 3rd Tac Area may carry out the problem.

TRUE COPY:

APD 3177, 4 April 1963

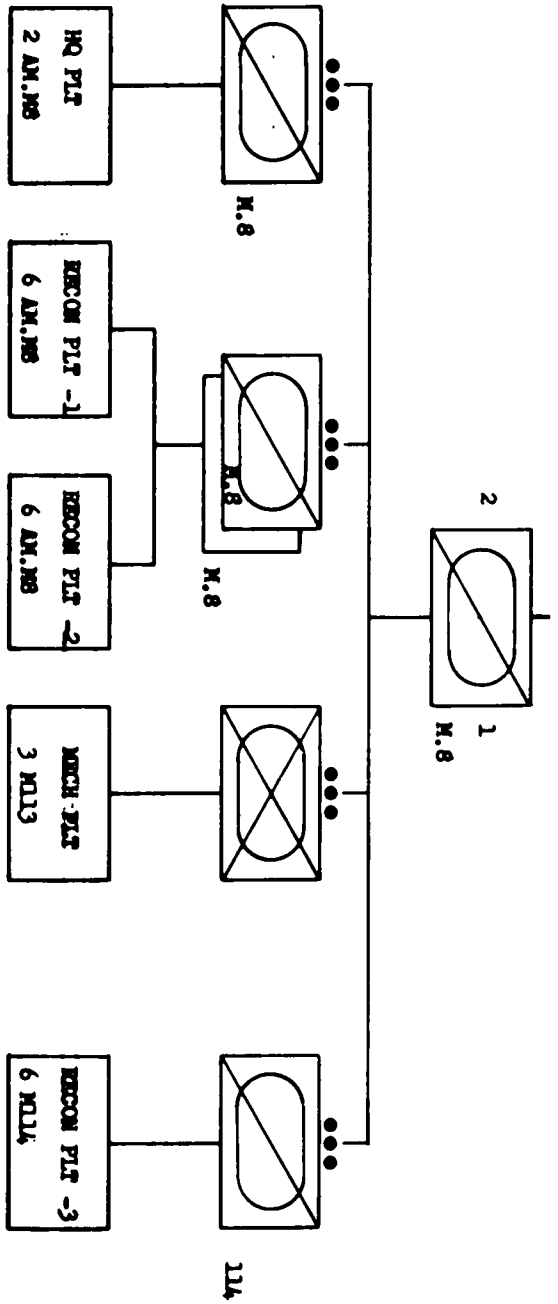
Capt DINH  
Chief of G3  
(Signature and Seal)

TO: MAAG/III Corps  
(for acknowledge)

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CHART 1

MIXED CO 2/1



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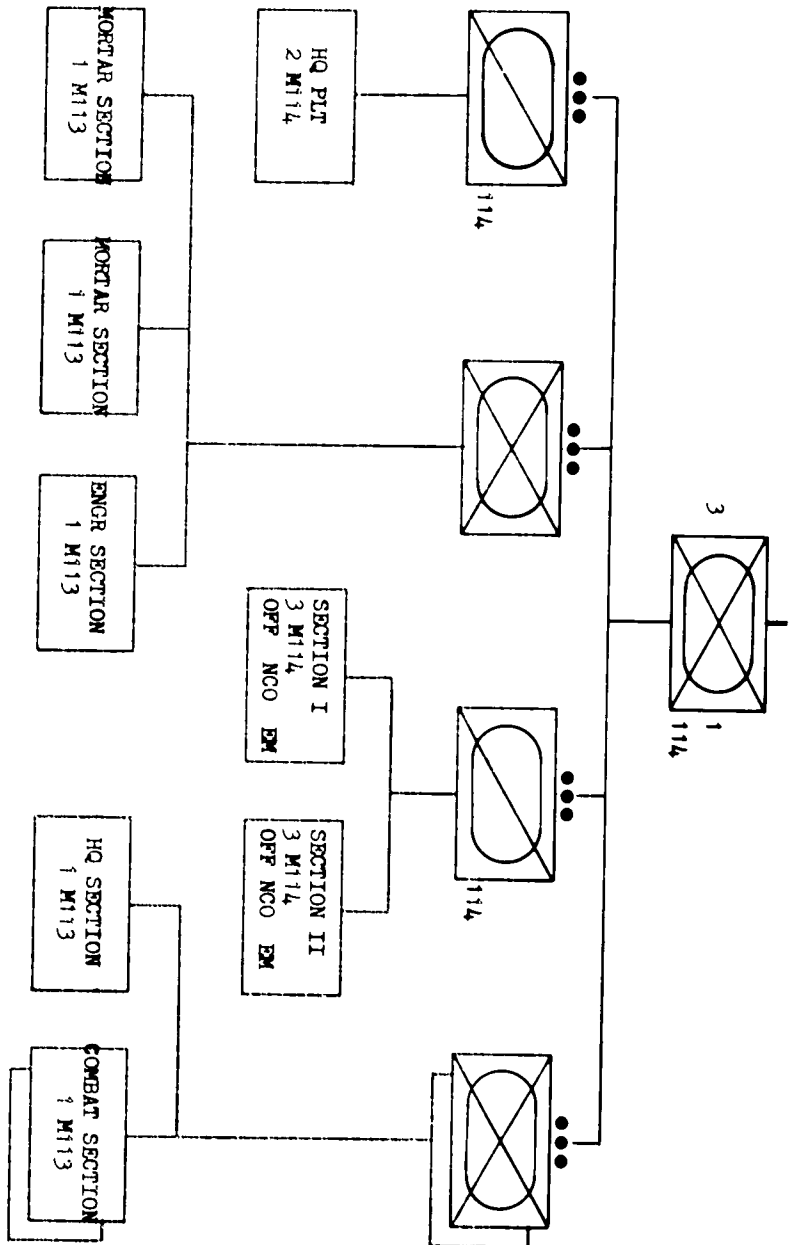
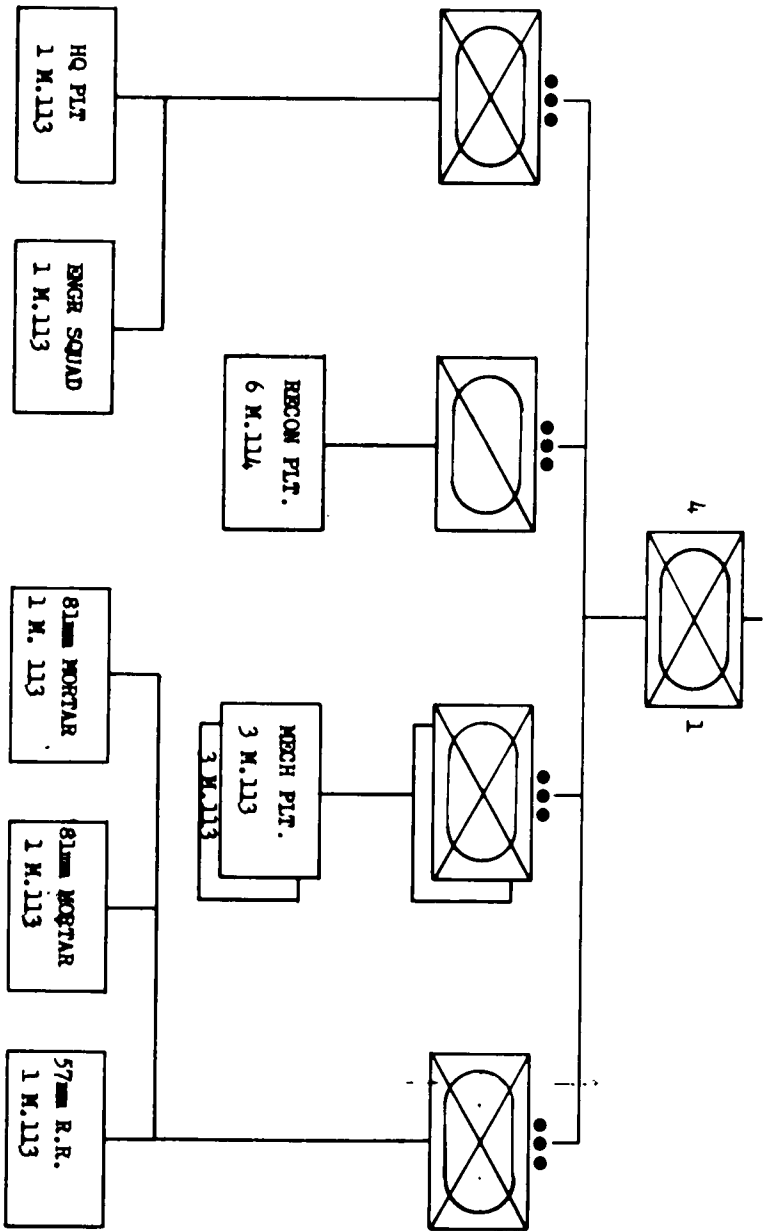


CHART 3

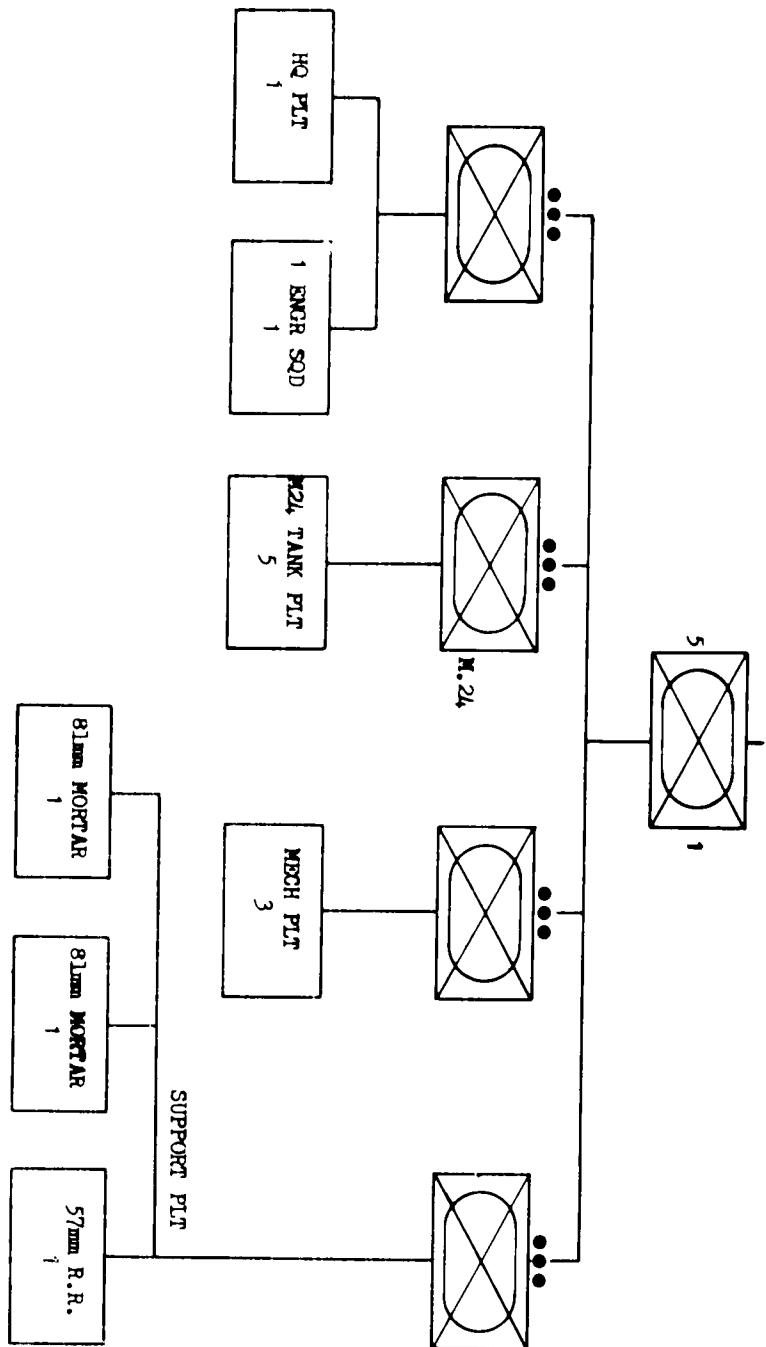
MIXED CO 4/1



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Monthly Test Report Number 3 — Mechanized Rifle Troop (M113)  
ANNEX I — Distribution of report.

<u>Addressee</u>	<u>Nr. of copies</u>
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Commander-in-Chief, US Army Pacific	5
Commanding General, US Army Combat Developments Command	50
Commanding General, US Continental Army Command	30
Commanding General, US Army Material Command	35
Commanding General, 11th Air Assault Division	5
Commanding General, US Army Support Group, Vietnam	20 (includes 5 for CG USARYIS)
Chief, Military Assistance Advisory Group, Vietnam (Attention Chief, Army Section)	35
Deputy Chief of Staff for Military Operations, Department of the Army	5
Assistant Chief of Staff for Force Development, Department of the Army	10
Deputy Chief of Staff for Logistics, Department of the Army	5
Deputy Chief of Staff for Personnel, Department of the Army	5
Chief of Research and Development, Department of the Army	5
ACTIV Liaison Officer, OACSPOR, Department of the Army	10
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