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AUTHORITY
AGO, d/a, ltr, 29 Apr 1980

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

INDEXED
20-4-2
CR +

IN REPLY REFER TO

AGAM-P (M) (12 Dec 66) FOR OT RD

13 December 1966

SUBJECT: Operational Report - Lessons Learned, 1st Aviation Brigade

TO: SEE DISTRIBUTION

1. Forwarded as inclosure is Operational Report - Lessons Learned from Headquarters, 1st Aviation Brigade for 4th Quarter FY 1966. Information contained in this report should be reviewed and evaluated by CDC in accordance with paragraph f of AR 1-19 and by CONARC in accordance with paragraphs 6c and i of AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to the Commandants of the Service Schools to insure appropriate benefits in the future from lessons learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

1 Incl
a/s

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 1ST AVIATION BRIGADE
APO San Francisco 96307

AVBA-B

SUBJECT: Operational Report-Lessons Learned for 4th Quarters FY 1966
(RCS GSFOR-65)

THUR: Commanding General
U.S. Army Vietnam
ATTN: AVC
APO 96307

Commanding General
United States Army Pacific
ATTN: GPOF-NH
APO 96558

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

SECTION I

SIGNIFICANT EVENTS

A. Command

1. Headquarters displaced from initial location at 106 Cach Mang, Saigon to the military installation at Tan Son Nhut.
2. Deputy Commander departed the command upon DEROS. Position remained vacant pending arrival of replacement in August.
3. Decision was made to continue Brigade Headquarters mission of administrative supervision as opposed to becoming fully administrative. Decision was based upon the forecast dearth of administrative personnel and consideration of the scheduled growth of the Brigade, which will require change in organization.

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4. Headquarters, 1st Aviation Brigade was officially activated by USARV SO 123 effective 22 May. Authorized strength was 20 personnel less than requested and required. RTOL is being submitted. Deputy CG, USAV officiated at activation ceremony.

5. The Capital Aviation Battalion (Provisional) was activated on 27 June, 1966, by SO number 18, 1st Aviation Brigade, (See Incl 1). (Date 18)

6. The 12th Aviation Battalion was released from the 12th Aviation Group and placed directly under 1st Aviation Brigade, on 30 July 1966, by SO number 41, 1st Aviation Brigade, (See Incl 2). (Date 30)

B. Intelligence

1. Brigade SOP for security procedures was published and distributed. This SOP set forth security procedures within the Brigade Headquarters and for the subordinate units. Also Chapter 10 (Intelligence) for the 1st Aviation Brigade Operations Manual was finalized.

2. The S-2 section was augmented with one additional officer for the purpose of monitoring the utilization of the Brigade CV-1 assets. He represents the Brigade Commander at the daily MACV surveillance conference.

3. Fifty one (51) individual requests for clearance were processed.

4. Two hundred and five (205) secret documents were processed.

5. The section procured 2450 maps for use by the Brigade Headquarters.

C. Operations, Plans & Training:

1. The Brigade Airmobile Operations manual was published and distributed early in the reporting period. As an adjunct to this manual, a pocket sized handbook was published. It is a condensed version of the manual including checklists intended to be carried by the individual aviator at all times. Both of these publications have been well received by the units in the field and are being utilized.

2. Upon completion of publications of the operations manual and handbook it was felt that standardization of tactical doctrine, technique and terminology was so important that a briefing team was organized. This team was designed to present a one hour briefing on the operations manual and handbook at all tactical headquarters and aviation headquarters down to battalion size units. Briefings were scheduled starting 21 June. To date all major headquarters have been briefed. Briefings are continuing as new units and newly assigned tactical commanders arrive in country.

3. Operation "Market Time" a program to train US Naval Aviators.

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in UH-1 helicopter flight technique and helicopter gunnery for the express purpose of taking over responsibility of waterway and off shore surveillance, overhead cover and fire team support to Task Force 116 commenced 11 July 66. The entire program consists of four (4) classes with a programmed completion date of 2 Oct 66. Naval Aviators are phased into operational missions as their training is completed. Upon completion of the training program, operation "Market Time" will become a US Navy responsibility.

4. A program of cross training, cross servicing and cross utilization of USAF and US Army O-1 aviators and O-1 aircraft was initiated. Purpose is to obtain maximum utilization of available O-1 resources. Concept is to train US Army aviators in principles of target marking for airstrikes and USAF aviators in the techniques of artillery and naval gunfire adjustment. Initial training program is progressing rapidly and will be a continuous process as replacement personnel arrive in-country.

5. A proposal to utilize VNAF rotary wing pilots in US Army assault helicopter companies received approval and implementation was directed by COMUSMACV. A joint US Army, USAF, VNAF conference was conducted 25 July to coordinate planning and initiate the program. The VNAF will provide ten (10) rotary wing aviators for the first group.

These VNAF pilots will be infused directly into US Army helicopter companies starting 2 Aug 66 for a period of three (3) months. They will be transitioned into the UH-1D helicopter with the goal of becoming fully qualified as first pilot in the aircraft. They will be trained in the complete spectrum of missions normally flown by the lift platoons of an assault helicopter company.

6. As a result of the test of the augmented aviation company (AAL) conducted during the last reporting period, a proposed TOE for a type Assault Helicopter Company (AHC) was formulated and submitted by this headquarters, on July 1966. This proposal increased the number of lift platoons in the company from 2 to 3, each having 3 UH-1D helicopters. With an 80% availability, the AHC will be capable of lifting the assault elements of a US infantry company. Virtually all equipment not capable of being lifted by either UH-1 or CH-47 was eliminated, and much light weight airmobile equipment substituted with the result that the company has complete field operational capability. (See Incl 3)

7. The augmentation of the current aviation company (AAL) with 6 more UH-1D helicopters began in mid July 66. This will put a total of 23 lift ships in the present company and will approximate the capability of the proposed AHC except for the ability to move completely by organic Army aircraft. This augmentation is an interim measure to provide increased airmobility to the ground forces pending approval and publication of the TOE for the assault helicopter company.

8. MTOE 1-252F for the Headquarters and Headquarters Company, Aviation Brigade is near completion. Tentative recommended strength will

103 BA Officers, 4 Marine Officers and 103 Enlisted men. This MICE will be followed by a proposed FOE for a type MHC, Aviation Brigade. The organization is basically tactical, but has sufficient administrative capability commensurate with the authority of the Commanding General to grant decorations and awards up to and including the Bronze Star Medal, allocate R & R quotas and FOE transportation allocations.

D. Logistics

1. 3-4 section continued to follow up on shortages of flight safety equipment and recommended distribution of items received based on needs of units.

2. Planned and supervised preparation for the relocation of the Brigade Headquarters from 106 Cach Lang to the old USARV Compound Tan Son Nhut Air Base, Saigon. This move was accomplished in late June.

3. The second planning conference on ammunition and FOE pre-stock points outlined requirements for Avn Brigade taking over these points. The pre-stock points continue to be necessary and Brigade will accept control of these points if units are properly augmented with FOE RD and Arme DE Teams to perform this mission. This recommendation is presently being staffed at Army Headquarters and early resolution of this problem area is expected.

4. On 16 April 1966 a request was submitted to United States Army Vietnam for 21 non-standard items to be added to airmobile (light) and airmobile (medium) companies, based on successful utilization of these items in the 1st Air Cav. These items have been approved by Department of the Army. Prior to requisition however, they must be placed in MTOE. MTOE's are presently under study at this headquarters and will incorporate these items.

5. Initiated action on property transfers as pertains to CV-2 take-over by the Air Force during 2d Quarter FY 67. Close surveillance of this action will continue.

6. Completed action on statistical data on T-1/P-52 rebuilt engine life versus new engine life and transmitted information through higher headquarters for analysis and possible improved engineering.

7. Planning and analysis of requirements for movement to Long Binh complex by elements of the Brigade are being undertaken.

E. Safety

1. During the period 1 May - 31 July 1966, 1st Aviation Brigade units experienced forty major accidents, four minor accidents, and twenty one combat losses. Sixty-seven aircraft were involved, thirty four of which were total losses. The most significant accidents of this period were four accidents involving OH-47A Aircraft, and two mid-air collisions.

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2. Two of the CH-47 accidents were due to materiel failure; one a failure of the combining transmission, and the other failure of a control rod actuator bracket. The other two involved pilot technique. In one of these accidents a major contributing factor was that the aircraft was over allowable gross weight at take off. This is a continuing problem with the CH-47 since the crews have no way of accurately weighing the cargo being carried. Inspection of CH-47 units after the two materiel failures revealed that approximately half of the transmissions were beyond tolerance and had to be changed. Another product of this inspection was that several aircraft were found to have structural failures in the formers and the skin of the aft pylon. These defects were attributed in part to the aircraft inadvertently being operated outside of the 33,000 pound gross weight flight envelope.

3. In all four CH-47 accidents a post-crash fire resulted, destroying the aircraft. This points up the need for a relaxation of the restriction placed on wearing flying suits, and the acquisition of the MCMX fire resistant flight suit as soon as possible for all aircrew members. Tail rotor failure on CH-1 aircraft has also been a problem during this period. Four tail rotor failures have been experienced by Brigade units. Of seventeen failures occurring in units throughout Vietnam, seven were due to maintenance errors, five from striking objects on the ground, two unknown (I/R could not be found), one P/R antenna base came off, one failure was due to fatigue and one by selflocking nut on pitch change plate backing off.

4. An inspection has been initiated at 100 hour intervals to check tail rotor components thoroughly to prevent further failures.

5. An analysis of the forty-four Brigade accidents shows the following causes:

(a) Human factor (pilot)	29
(b) Human factor (Maintenance)	1
(c) Materiel failure	11
(d) Other	3

6. An interesting point is that of the twenty-nine pilot induced accidents, ten involved O-1 aircraft. A review of several of the accident reports revealed that the pilots involved were relatively new in country and had very little flying experience.

7. With new aviators coming in to replace experienced personnel, closer supervision must be maintained over the new arrivals in order to prevent a rise in the number of accidents.

8. Increased emphasis must be placed on pilot standardization,

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in-country orientation programs, and use of the GO-NO-GO procedures in all helicopter operations.

F. Signal

1. During the month of May voice communications were established between the 12th and 17th Aviation Groups and 1st Avn Bde utilizing FT single sideband radio. This was converted to radio teletype later in the month. By 1 June, both groups were tied into the Brigade by land line secure teletype.

2. Two AN/ARC-122 (FH) command and control consoles were obtained and installed in Brigade Headquarters aircraft in May 1966. These systems are used by the OG and staff elements to monitor and communicate with Brigade units participating in airmobile assault operations.

3. Initial coordination was effected on 6 June to transfer existing telephone and teletype circuits from the old Aviation Brigade headquarters to the new compound at Tan Son Nhut. The initial move was made on 10 June. Lack of circuits for teletype to the present Brigade compound delayed the completion of the move until 22 June. Final telephone installation was completed on 26 June.

4. During the month of June the 17th Avn Cp installed secure radio teletype to each of its subordinate battalions. The 12th Avn Cp was in the process of doing the same. However, the 12th Avn Cp moved to Long Binh the last week in June and had to reestablish circuits. With the close of July, the 12th Avn Cp had reestablished secure teletype to the 11th, the 145th and the 13th Avn Battalions.

5. On 8 June representatives of the Aviation Brigade headquarters and units and units joined with personnel from USAFV, the 34th GSC and divisional units in an avionics conference. The purpose of the conference was to review, clarify and coordinate avionics repair and supply procedures. The keynote of the conference was to document demands on the system and make the system function as designed. Emphasis continued throughout June and July to improve avionics by purification of the supply and equipment evacuation systems and through mutual help between avionics support units.

6. An extensive avionics retrofit program for USAFV aircraft is planned to begin during the 2nd quarter FY 1967. The Aviation Brigade Signal Office participated in the planning of the program during the period May thru July. Near the close of July a survey was made of all aircraft within the Brigade to determine current avionics configuration.

7. A study of the feasibility and qualitative requirement for a crash activated radio beacon for OV-1 aircraft was initiated in July. This study was activated in response to queries from Brigade units.

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8. The Signal section participated in the review and recommended changes to the draft TOE for the Airmobile Company during the month of June.

SECTION II PART I

OBSERVATION (LESSONS LEARNED)

A. Command

1. Item: ACSFOA should anticipate unit growth and structure requirements and provide TOE, mission etc., therefore.

2. Discussion: Activation of the Brigade headquarters under an aviation group TOE (1-252F) produced entirely inadequate results, even though a draft TOE was furnished ACSFOA representatives.

3. Observation: Particularly in RVN, where the rate and type of organizational growth is stated in programmed theater requirements, expansion organization should be anticipated and provided for accordingly, i.e., TOE, personnel and equipment resources.

B. LOGISTICS:

1. Item: USAFV Forms 47, Request for Equipment in Excess of Authorized Allowances, have been found to be repetitious at times in that items common to many units within the theater have to be requested individually for each unit.

Discussion: When an item is desirable for all of a type unit, one USAFV Form 47 approval could be authority for all of the like units to be issued the item. An example is a Polaroid camera for each Aviation Battalion headquarters.

Observation: Use of this procedure would materially reduce some of the administrative workload and would contribute to a more orderly supply system.

2. Item: All approved USAFV Forms 47 are for inclusion in a modified TOE.

Discussion: Many items approved for issue in excess of authorized allowances are not desirable nor appropriate to a TOE, and should be identified for inclusion in a Table of Allowances.

Observation: A command determination to resolve this problem should be made.

3. Item: Movement of supplies and equipment by helicopter has been hampered due to a shortage of slings and nets.

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Discussion: It is desirable that slings and nets be available to the supported units. Capability of airmobile units to store, maintain, transport, rig and recover these items is limited.

Observation: That an analysis of requirements by type unit be made and that slings and nets be designated AM/ACC equipment. That units deploying to RVN arrive in country with these items. It might be considered appropriate for the major unit's support organization, for example the S & T Bn of a Division, to retain these items and issue them to a tactical unit for the duration of an operation. This would allow for centralized control and maximum usage of the equipment.

C. Signal

1. Item: Aviation units require portable (man pack) UHF communications.

Discussion: During this period it became apparent that airmobile units required a portable UHF radio capability as well as portable (man pack) VHF radios to control air traffic in forward air strips. During the initial phases of forward operations it is not always possible to lift vehicles with installed radios systems to handle this task. Action has been initiated to obtain two (2) portable (man pack) UHF radios for each airmobile company within the Brigade. A requirement has also been forwarded to have all new airmobile units equipped with the above radios prior to deployment.

Observation: Unit commanders should plan for use of portable radios in pathfinder operation and in forward airfield control pending receipt of the equipment.

2. Item: The length of the antenna for the new family of radios makes it difficult to install on the UH-1 helicopter when using the AM/ACC-122 command console.

Discussion: The antenna system which is part of the AM/ACC-122 radio used for command and control aircraft does not provide desirable results in its present configuration. These antennae are mounted underneath the UH-1 aircraft parallel to the ground and aircraft skin. This installation results in horizontal polarization. This installation also tends to cause a transmission pattern which is not omnidirectional. By modifying the antenna mounts, it was found that the antennae could be mounted vertically at an approximate 45° angle from the aircraft and provide vertical polarization and much improved communication capability.

Observation: Mounting of the AM/ACC-122 antenna as described above should be standardized to improve the reliability of command and control communications.

D. TACTICAL LESSONS LEARNED (See Incl 4)

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SECTION II PART II

RECOMMENDATIONS

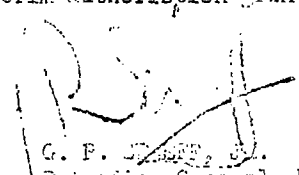
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A. Re-evaluate the entire system and method of the use and approval of USAFV Forms 47.

B. Recommend that supported non-aviation units be authorized slings and nets as WASTOC items, and deploying units bring this equipment with them in-country.

C. That action be taken to modify the antenna mount for the AN/ARC-122 command console to provide vertical orientation of the whip when used with the UH-1 aircraft.

D. That the KOREX flight suit be procured and authorized for use by aircrewmembers in Vietnam, with interim authorization granted for use of the currently issued item.

7 Incl
as


G. P. SMITH, JR.
Brigadier General, USA
Commanding

DEPARTMENT OF THE ARMY
HEADQUARTERS, 1ST AVIATION BRIGADE
APO San Francisco 96307

AVBD-C

7 July 1966

SUBJECT: Letter of Transmittal

TO: Commanding General
United States Army Vietnam
ATTN: AVC-O&T
APO 96307

1. Submitted herewith is a proposed new table of organization and equipment for a type assault helicopter company to supersede TOE 1-77 (E). Organized under this proposed TOE the assault helicopter company would fulfill the missions assigned in TOE 1-77 (E) and be assigned to a divisional aviation battalion (TOE 1-76) or a separate aviation battalion (TOE 1-256). This proposal is made by this headquarters based on field experience by assault helicopter companies in the Republic of Vietnam and includes recommendations made by two companies after operating in the proposed configuration of three airlift platoons and one armed platoon for a period of one month. In addition to increasing the number of aircraft per company, this proposed TOE provides expanded ground communications equipment, elimination of some heavy equipment and inclusion of support equipment that can be displaced with the company by organic aircraft. This will enable a company to operate for extended periods of time away from a base airfield.

2. For sustained operations, this company will require the attachment of an avionics signal detachment and a third echelon maintenance detachment. Consideration was given to including either or both of these organizations in the airmobile company. These proposals were rejected because the numbers of personnel and amount of equipment to be assimilated would have yielded an unwieldy company organization. It is believed that the particular support and technical supply functions of these two units can best be fulfilled by separate, specialized organizations.

3. Inadequate ground communications have been among the greatest difficulties encountered by assault helicopter companies in the Republic of Vietnam. Many companies spend more time away from their base airfields than they do at their fixed installations. This necessitates light, mobile communications equipment to communicate with the supported unit, parent headquarters, base airfield and organic aircraft. There is an additional need for the company commander and platoon leaders to monitor either organic radio nets or those of supported units while aircraft are shut down

ILC 1 Deleted
ILC 2 Deleted
1/26/66

3-1

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AVBD-C

7 July 1966

SUBJECT: Letter of Transmittal

in loading or staging areas. The communications equipment included in this TO&E is the optimum amount to maintain the communications necessary for efficient mission accomplishment. 12

4. A need has been established within airmobile companies for two items included in this proposed TOE which are not believed to be available within the Army inventory. These items are a standard survival kit for UH-1 aircraft and a suitable lightweight auxiliary power unit.

a. One standard survival kit for each aircraft would eliminate the necessity for individual or makeshift survival packages now carried in the aircraft. This would insure availability of necessary items and preclude duplication in a survival situation. Moreover, it would make possible the training of all crew members for the use of all necessary survival equipment.

b. With the auxiliary power sources available to the assault helicopter company it is necessary for many purposes to apply a "quick charge" to the battery and then use the battery as the primary power source. A lightweight turbine powered generator capable of producing 300 amperes would be suitable for any electrical power requirements on the UH-1 helicopter.

5. This company will be dependent upon support units for movement of POL products and ammunition to its forward base. Adequate storage facilities for stockage of POL are not practical at company level and use of organic transport for movement of these supplies would greatly reduce the company's ability to fulfill its primary mission.

6. This proposed TO&E departs from guidance contained in AR 611-201 by designating sergeants first class (E-7) as platoon sergeants of the armed platoon and three airlift platoons. Primary responsibility for first and second echelon maintenance of eight aircraft and the required knowledge of the supply system and publications in addition to his control of fifteen persons (including eight crew chiefs and six gunners) is justification for this departure from established policy. To assist the platoon sergeant in the discharge of his duties and provide a logical and responsive chain of control, section sergeants (staff sergeant, E-6) have been provided in each airlift and armed section. The section sergeant will serve as crew chief of one aircraft and be responsible to the platoon sergeant for maintenance of the four assigned aircraft. He will, additionally, keep the section commander appraised of the maintenance status of the aircraft.

7. Reduction to eighty percent operating strength was effected by

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AVED-C

7 July 1966

SUBJECT: Letter of Transmittal

removal of the armed platoon, not affecting the unit's ability to accomplish its mission in a training or administrative environment. This reduction places the unit five personnel below the allowable lower limit for a unit of this size under the provisions of AR 310-31. Additional personnel at this manning level would be superfluous.

FOR THE COMMANDER:

Francis Z. Paschke Jr.
W. RIVERA
FO Captain, AGC
Asst Adj 1/4T Int.

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TABLE OF ORGANIZATION)
AND EQUIPMENT)
NO. 1 - _____

* TOE 1 - _____
HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C. _____

ASSAULT HELICOPTER COMPANY (A)
Designation: _____ Assault Helicopter Company (A)**
_____ Assault Helicopter Company

Section I. GENERAL:

Organization - - - - - 2
Equipment - - - - - (omitted)

II. ORGANIZATION (Personnel):

Distribution - - - - - 3
Recapitulation - - - - - 4
Remarks - - - - - 9

III. EQUIPMENT:

Distribution - - - - - 10
Recapitulation - - - - - 17
Remarks - - - - - 20

* Supersedes TOE 1-77E for divisional and non-divisional units.

** (A) is included with designation when company is organized at level 1 or 2 with organic armed helicopter platoon.

SECTION I
GENERAL
ORGANIZATION

1. MISSION

- a. To provide air mobility to combat troops.
- b. To provide tactical air movement of combat supplies and equipment within the combat zone.
- c. To provide organic fire suppression and/or support when organized at strength levels one (1) and two (2).

2. ASSIGNMENT

- a. Organic to Aviation Battalion, Armored Division, Infantry Division, or Infantry Division (Mechanized).
- b. Attached to Combat Aviation Battalion.

3. CAPABILITIES

- a. At strength level 1 this unit has the following capabilities:
 - (1) Providing continuous (day and night) operations during visual weather conditions and limited operations under non-visual weather conditions in support of the force in the combat zone.
 - (2) Providing in a single lift, airlift for the assault elements of one infantry or dismounted mechanized infantry company.
 - (3) Providing air movement of troops, supplies and equipment within the combat zone.
 - (4) Augmenting aeromedical evacuation capability of medical air ambulance elements.
 - (5) Providing organic fire suppression and/or support by employment of door guns and the mounted weapons of the armed platoon.
- b. Strength level 2 adapts this Table of Organization and Equipment to the lesser requirements for personnel and equipment during prolonged non-combat periods or for a limited period of combat.
- c. Strength level 3 eliminates the organic fire suppression and support capability.
- d. This unit is not adaptable to type B organization.

- 17
- e. This unit is dependent on outside administrative support.
 - f. This unit is dependent on attached or outside avionics support and direct support maintenance.
 - g. Individuals of this unit can fight as infantrymen when required.

4. BASIS OF ALLOCATION

- a. One per Aviation Battalion, Armored Division, Infantry Division, or Infantry Division (Mechanized).
 - b. One or more per Combat Aviation Battalion.
5. CATEGORY. This unit is designated a Category I unit.
6. MOBILITY. One hundred percent mobile using air and ground vehicles.

EQUIPMENT

(OMITTED)

ASSAULT HELICOPTER COMPANY AVIATION BATTALION, ARMORED DIVISION
 OR
 ASSAULT HELICOPTER COMPANY AVIATION BATTALION, INFANTRY DIVISION
 OR
 ASSAULT HELICOPTER COMPANY AVIATION BATTALION, INFANTRY DIVISION (REORGANIZED)
 OR
 ASSAULT HELICOPTER COMPANY AVIATION BATTALION

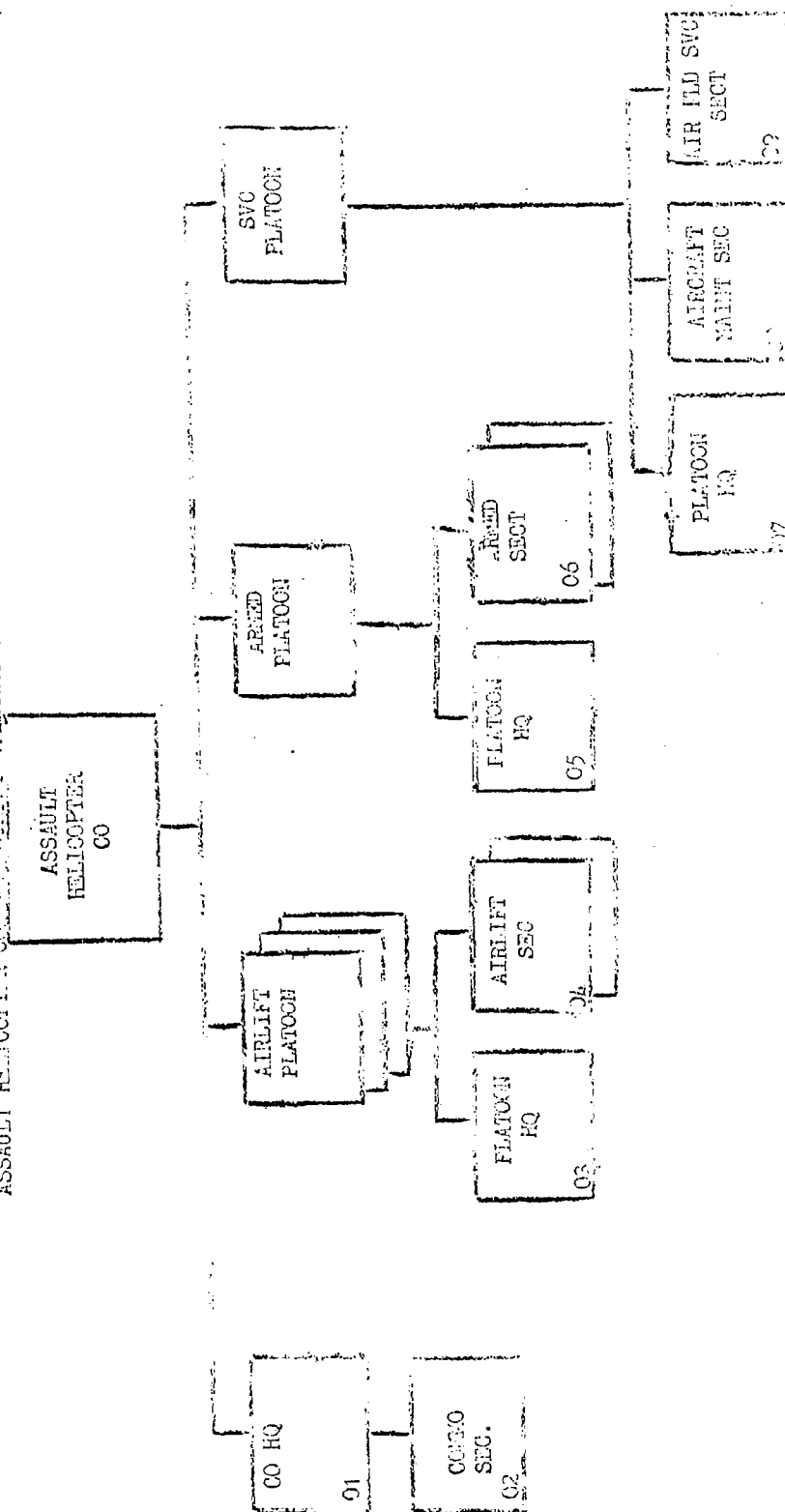


TABLE OF ORGANIZATION AND EQUIPMENT
SECTION II - PERSONNEL ALLOWANCES

NO. 1 -
CMD
UIC

INDEX		DESCRIPTION c	GRADE d	MOS e	BR f	STRENGTH LEVELS			REMARKS		
PAR a	LINE b					1 g	h	i	1 j	2 k	3 l
		SRC _____									
01		COMPANY HEADQUARTERS									
	01	COMPANY COMMANDER	Maj	1983	NO	1	1	1			
	02	EXECUTIVE OFFICER	Maj	1983	NO	1	1	1			
	03	FLT OPNS OFF	Maj	1982	NO	1	1	1			
	04	INTEL OFF	Capt	1982	NO	1	1	1			
	05	UNIT SUP TECH	WO	761A0	QM	1	1	1	11		
	06	1ST SGT	E-8	67N50	NC	1	1	1			
	07	FLT OPNS CH	E-7	71P40	NC	1	1	1	01		
	08	INTEL SGT	E-7	11D40	NC	1	1	1	01		
	09	MESS STEWARD	E-6	94B40	NC	1	1	1			
	10	SUPPLY SGT	E-6	76K40	NC	1	1	1			
	11	FIRST COOK	E-5	94B30		1	1	1			
	12	SR FLT OPNS SP	E-5	71P40		1	1	1	01, 08		
	13	ARMORER	E-4	76K30		1	1	1	01, 12		
	14	CO CLERK	E-4	71B20		1	1	1	01		
	15	COOK	E-4	94B20		2	2	1			
	16	FLT OPNS SP	E-4	71P20		1	1	1	01, 08, 12		
	17	COOKS HELPER	E-3	94A10		1	1	1	01		
	18	LT TRK DRV	E-3	71A10		1	1	1	12, 08		
	19	SUPPLY CLERK	E-3	76A10		1	1	1	01		
						20	20	19			
02		COMMUNICATIONS SECTION									
	01	COMMO CHIEF	E-6	31F40	NC	1	1	1			
	02	RADIO TT TEAM CHIEF	E-5	05C40		1	1	1			
	03	SR RADIO MECHANIC	E-5	31B20		1	1	1			
	04	SR SWBD OPERATOR	E-4	36A10		1	1	1	03		
	05	AVN ELEC EQUIP MECH	E-4	31Q20		2	2	1	40		
	06	RADIO MECHANIC	E-4	31B20		1	1	1			
	07	RADIO OPERATOR	E-4	05B20		2	1	1			
	08	SWBD OPERATOR	E-3	36A10		2	2	2	08		
						11	10	9			
03		AIRLIFT PLATOON HEADQUARTERS (3)									
	01	PLATOON COMMANDER	Capt	1983	NO	3	3	3			
	02	PLATOON SGT	E-7	67N4F	NC	3	3	3			
	03	LT TRK DVR	E-3	67A10		3	3	3			
						9	9	9			
				3							
a	b	c	d	e	f	g	h	i	j	k	l

TABLE OF ORGANIZATION AND EQUIPMENT
SECTION II - PERSONNEL ALLOWANCES

NO.
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UIC 20

INDEX		DESCRIPTION c	GRADE d	MOS e	DR f	STRENGTH LEVELS			REMARKS		
PAR a	LINE b					1	h	i	1	2	3
						g	h	i	j	k	l
04		AIRLIFT SECTION (6)									
	01	SECTION COMMANDER	LT	1983	NO	3	6	6			
	02	R/W AVIATOR	WO	062B0	AV	39	33	30			
	03	SEC SGT	E-6	67N4F	NC	6	6	6			
	04	SR DOOR GUNNER	E-5	11B2F	NC	6	6	6			
	05	CREW CHIEF	E-5	67N2F		18	18	18			
	06	DOOR GUNNER	E-4	11B2F		12	12	12			
						87	81	78			
05		ARMED PLATOON									
	01	PLATOON COMMANDER	Capt	1983	NO	1	1	0			
	02	R/W AVIATOR	WO	062B0	AV	1	1	0			
	03	PLAT SGT	E-7	67N4F	NC	1	1	0			
	04	CREW CHIEF	E-5	67N2F		1	1	0			
	05	LT TRK DVR	E-3	67A10		1	1	0			
	06	DOOR GUNNER	E-4	11B2F		1	1	0			
						6	6	0			
06		FIRE TEAM (2)									
	01	TEAM LDR	LT	1983	NO	2	2	0			
	02	R/W AVIATOR	WO	062B0	AV	10	8	0			
	03	SEC SGT	E-6	67N4F	NC	2	2	0			
	04	SR DOOR GUNNER	E-5	11B2F	NC	2	2	0			
	05	CREW CHIEF	E-5	67N2F		4	4	0			
	06	DOOR GUNNER	E-4	11B2F		4	4	0			
						24	22	0			
07		SERVICE PLATOON HEADQUARTERS									
	01	PLATOON COMMANDER	Capt	64823	NO	1	1	1			
	02	PLAT SGT	E-7	67N40	NC	1	1	1			
	03	MOTOR SGT	E-6	63B40	NC	1	1	1			
	04	HEL TECH INSP	E-6	67W2F		2	2	1			
	05	SR WHL VEH MECH	E-5	63B20		1	1	1	12		
	06	CREW CHIEF	E-5	67N2F		1	1	1			
	07	ACFT SUP SPEC	E-4	76H20		2	2	1			
	08	SHOP CLERK	E-4	71B20		1	1	1	01		
	09	POWERMAN	E-4	52B20		1	1	1	12		
	10	WHL VEH MECH	E-4	63B20		1	1	1	01		
	11	WHL VEH MECH HELPER	E-3	63B10		1	1	1	01		
	12	SUP PARTS SPEC	E-3	76A10		1	1	1	01		
						12	14	12			
				4							

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TABLE OF ORGANIZATION AND EQUIPMENT
SECTION II - PERSONNEL ALLOWANCES

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INDEX		DESCRIPTION c	GRADE d	MOS e	DR f	STRENGTH LEVELS			REMARKS		
PAR a	LINE b					1	h	i	1	2	3
						g	h	i	j	k	l
		RECAPITULATION BY GRADE OFFICERS									
			Maj	1982		1	1	1			
			Maj	1983		2	2	2			
			Capt	1982		1	1	1			
			Capt	1983		4	4	3			
			Capt	64843		1	1	1			
			Lt	1983		8	8	6			
			WO	062B0		50	42	30			
			WO	671C0		1	1	1			
			WO	761A0		1	1	1			
						69	61	46			
		ENLISTED									
			E-8	67N50		1	1	1			
			E-7	11D40		1	1	1			
			E-7	67N40		5	5	4			
			E-7	71P40		1	1	1			
			E-6	31F40		1	1	1			
			E-6	63B40		1	1	1			
			E-6	67N40		9	9	7			
			E-6	67W20		2	2	1			
			E-6	76K40		1	1	1			
			E-6	94B40		1	1	1			
			E-5	05C40		1	1	1			
			E-5	11B20		5	5	3			
			E-5	31B20		1	1	1			
			E-5	45J20		1	1	1			
			E-5	51M40		1	1	1			
			E-5	63B20		1	1	1			
			E-5	67N20		32	32	25			
			E-5	67N40		1	1	1			
			E-5	71P40		1	1	1			
			E-5	94B30		1	1	1			
			E-4	05B20		2	1	1			
			E-4	11B20		20	20	15			
			E-4	31B20		1	1	1			
			E-4	31Q20		2	2	1			
			E-4	36A10		1	1	1			
			E-4	45J20		3	2	0			
			E-4	51M20		2	2	2			
			E-4	52B20		1	1	1			
			E-4	55B20		2	2	1			
			E-4	56C20		6	5	4			
			E-4	63B20		1	1	1			
			E-4	67N20		10	8	6			
			E-4	71B20		2	2	2			
			E-4	71P20		1	1	1			
			E-4	76H20		2	2	1			
			E-4	76K30		1	1	1			
				6							

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TABLE OF ORGANIZATION AND EQUIPMENT										NO.	
SECTION II - PERSONNEL ALLOWANCES										CMD	
										UIC	
INDEX		DESCRIPTION c	GRADE d	MOS e	DR f	STRENGTH LEVELS			REMARKS		
PAR a	LINE b					1 g	h	i	1 j	2 k	3 l
		RECAPITULATION BY MOS OFFICERS									
			Maj	1982		1	1	1			
			Capt	1982		1	1	1			
			Maj	1983		2	2	2			
			Capt	1983		4	4	3			
			Lt	1983		8	8	6			
			Capt	64823		1	1	1			
			WO	062B0		50	42	30			
			WO	671C0		1	1	1			
			WO	761A0		1	1	1			
						69	61	46			
		ENLISTED									
			E-4	05B20		2	1	1			
			E-5	05C40		1	1	1			
			E-5	11B20		5	5	3			
			E-4	11B20		20	20	15			
			E-7	11D40		1	1	1			
			E-5	31B20		1	1	1			
			E-4	31B20		1	1	1			
			E-6	31F40		1	1	1			
			E-4	31Q20		2	2	1			
			E-4	36A10		1	1	1			
			E-3	36A10		2	2	2			
			E-5	45J20		1	1	1			
			E-4	45J20		3	2	0			
			E-5	51M40		1	1	1			
			E-4	51M20		2	2	2			
			E-4	52B20		1	1	1			
			E-3	55A10		1	1	0			
			E-4	55B20		2	2	1			
			E-4	56C20		6	5	4			
			E-3	63B10		1	1	1			
			E-5	63B20		1	1	1			
			E-4	63B20		1	1	1			
			E-6	63E40		1	1	1			
			E-3	67A10		7	7	5			
			E-5	67N20		32	32	25			
			E-4	67N20		10	8	6			
			E-7	67N40		5	5	1			
			E-6	67N40		9	5	1			
			E-5	67N40		1	1	1			
			E-8	67N50		1	1	1			
			E-6	67W20		2	2	1			
			E-3	71A10		1	1	1			
			E-4	71B20		2	2	1			
			E-4	71P20		1	1	1			
				Σ							

TABLE OF ORGANIZATION AND EQUIPMENT										NO.	
SECTION II - PERSONNEL ALLOWANCES										CMD	
										UIC	
INDEX		DESCRIPTION c	GRADE d	MOS e	BR f	STRENGTH LEVELS			REMARKS		
PAR a	LINE b					1 g	2 h	3 i	1 j	2 k	3 l
		RECAPITULATION BY MOS CONT'D ENLISTED									
			E-7	71P40		1	1	1			
			E-5	71P40		1	1	1			
			E-3	76A10		3	3	3			
			E-4	76H20		2	2	1			
			E-4	76K30		1	1	1			
			E-6	76K40		1	1	1			
			E-3	94A10		1	1	1			
			E-4	94B20		2	2	1			
			E-5	94B30		1	1	1			
			E-6	94B40		1	1	1			
						143	138	108			
						212	199	154			
REMARKS All officers and warrant officers armed with revolver, cal .38 except as otherwise indicated. All enlisted personnel armed with rifle 5.56mm except as otherwise indicated. 01-Also light truck driver 08-Also radio telephone operator 11-Armed with pistol cal .45 automatic 12-Armed with grenade launcher 40mm; remark 11 applies 40-One (1) EM on non-crewmember flying status.											

TABLE OF ORGANIZATION AND EQUIPMENT							NO.
SECTION III - EQUIPMENT ALLOWANCES							CMD
							UTC
PAR	LINE ITEM NO.			DESCRIPTION	EQUIPMENT LEVELS		RMK
	ECC	BASIC	CMD		1		
a	b	c	d	e	f	g	h
01				COMPANY HEADQUARTERS			
	A03210			Accessory outfit gasoline field range	1	1	1
	A17126			Adding and subtracting machine 10 digit hand/ elec AC/DC 110V	1	1	1
	B15688			Bag Water sterilizing	2	2	2
	B29464			Barber kit w/case	1	1	1
	B49135			Bayonet knife M7 for Rifle 5.56mm	12	12	11
	B67218			Binocular 7 by 50 Military reticle	4	4	4
	C37737			Burner assembly space heater	5	5	5
	D65276			Case field office machine 18 1/2 22 1/2 34 1/2	4	4	4
	E39823			Clock, message center Chelsea 112	1	1	1
	E63317			Compass magnetic lensatic 1.58 diam card	6	6	6
	E74037			Compressor reciprocating powerdriven 3 1/2 cfm	1	1	1
	E75085			Computer air nav aluminum w/case type CPU 26 A/I	12	12	12
	F81469			Decontaminating apparatus ptbl 1 1/2 qt	4	4	4
	F97915			Desk field plywood 22 5/8 W 25 7/8 H 14 1/2 D	2	2	2
	G04437			Detector kit chemical agent VGH	1	1	1
	H22122			Extinguisher fire carb diox charged 15lb	1	1	1
	H40746			File visible index 156 pockets	2	2	2
	H73666			Flashlight plastic right angle 2 cell	8	8	8
	H83817			Food container insulated rectangular w/inserts	12	12	10
	J46638			Generator set gas engine 5 kW 60cy 1 phase 4 wire 120/240 volt	2	2	2
	J71304			Goggle sun 2 plastic lenses 1 colorless 1 green	5	5	5
	K25342			Heater immersion liq fuel fired 30in long	8	8	8
	K25479			Heater immersion liq fuel fired 37 1/2 in lg	1	1	1
	K25890			Heater space coal or oil 45,000 Btu 18 5/8 in High	5	5	5
	L44575			Launcher Grenade 40mm M79	3	3	3
	L61459			Light fixture fluorescent 3 40W	4	4	4
	L63994			Light set gen illum 25 outlet	3	3	3
	L92386			Gun machine 7.62mm LW GP	2	2	2
	M75714			Mount tripod machine gun 7.62	2	2	2
	M55650			Panel marker aerial liaison type VS 17/GVX	6	6	6
	N96741			Pistol cal. 45 Automatic	4	4	4
	Q20935			Radiometer IM-93/HD	2	2	2
	Q37005			Radio set AN/PRC-25 w/c	5	5	4
	Q54618			Radio set AN/VRC-47 mtd in truck 1/2 ton	1	1	1
	Q55299			Radio set AN/VRC-49 mtd in truck 1/2 ton	1	1	1
	Q58680			Radio set AN/VRC-24 mtd in truck 1/2 ton	1	1	1
	R14154			Range outfit field gasoline	4	4	3
	R75709			Repair kit tentage	1	1	1
	R91244			Revolver, cal .38 Pol Pos w/shoulder holster	4	4	4
	R94977			Rifle 5.56mm w/bipod M16M1	12	12	11
	S27405			Safe two shelves 1 drawer 2 compartments 25H 17W 17 1/2 D	2	2	2
	341029			Scabbard bayonet knife M5A1	12	12	11
	U11152			Sprayer insect hand 2 gal	1	1	1
				10			

TABLE OF ORGANIZATION AND EQUIPMENT						NO.			
SECTION III - EQUIPMENT ALLOWANCES						CMD			
						UIC			
PAR	LINE ITEM NO.			DESCRIPTION		EQUIPMENT LEVELS			RMK
	ECC	BASIC	CMD			1			
a	b			c		d	e	f	g
	U32924			Strapping kit steel strapping band 3/8in 2 in strap w		1	1	1	
	U93477			Table folding legs wood solid top wood legs 36L 24W 27 25/32H		6	6	6	
	V05712			Tableware outfit field w/components		9	8	5	
	V31211			Tel phone set TA-312/PT		6	6	6	
	V49948			Tent kitchen flyproof H1948 FFWWR		1	1	1	
	W31634			Tool kit armorers ord drawing Nr 7540640		1	1	1	
	W34648			Tool kit carpenters Eng SM 5-4-5180-504		1	1	1	
	W95400			Trailer amphib cargo 1/2 ton 2 wheel w/e		3	3	3	
	W95537			Trailer cargo 3/4 ton 2 wheel		3	3	3	
	W95811			Trailer, cargo, 1 1/2 ton 2 wheel w/e		1	1	0	
	W98825			Trailer tank water 1 1/2 ton 2 wheel 400 gal w/e		1	1	1	
	X39375			Truck cargo 3/4 ton 4X4 w/e		3	3	3	
	X40009			Truck 2 1/2 ton 6X6 LWB w/e		2	2	1	
	X55627			Truck platform utility 1/2 ton 4X4 w/e		2	2	2	
	X60833			Truck utility 1/4 ton 4X4		3	3	3	
	X80074			Typewriter non-ptbl 13 in carriage elite type		3	3	3	
	X80759			Typewriter ptbl 42 keys upper and lower case elite type		1	1	1	
	Y34027			Watch wrist non-maintainable		20	20	20	
	952225			Drum fabric water collapsible		2	2	2	907
	956578			Tent frame type expandable 16 by 16		2	2	2	907
	956608			Tent Ltwt medium		2	2	2	907
	960860			Camera, Polaroid model 101		1	1	1	907
	974019			Kit crash investigation		1	1	1	907
	UNK			Voice transmission security equipment TSEC KY-38		3	3	3	907
	UNK			Command console for UH-1H helicopter		1	1	1	907
02				COMMUNICATIONS SECTION					
	A71712			Antenna AT-984/G		2	2	2	
	B49135			Bayonet knife M7 for rifle 5.56mm		11	10	9	
	C68993			Cable telephone WD-1/TT HX 306/G		8	8	8	
	E00533			Charger radiac detector FI-1578/PD		3	3	3	
	E07547			Chest truck type body 28 7/8" L 18" W 12" H Sig BC-5		2	2	2	
	H73666			Flashlight plastic right angle 2 cell		3	3	3	
	J31704			Goggles sun 2 plastic lenses 1 colorless 1 green		2	2	2	904
	J46110			Generator set gas engine 3KW 28V DC skid mtd		2	2	2	
	L01121			Inverter vibrator RF-68/U		1	1	1	
	M80002			Multimeter AN/URM-5		4	4	3	221
	N72891			Faulin cotton duck FFWWR OD 40ft L 20ft W		1	1	1	
	Q21072			Radiacmeter IM-108/IF		1	1	1	
	Q34692			Radio set AN/VRC-47 mtd in truck 3/4 ton		1	1	1	
	Q78282			Control Group AN/GRA-39		3	3	3	
	R52228			Rectifier DC Power supply ptbl Sig B-2		1	1	1	
	R55920			Reel cable 9" diam 8" reel RL-39 Sig DR-8		6	6	6	
	R59203			Reeling Machine Cable hand RL-31		1	1	1	
				31					
a	b			c		d	e	f	g

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SECTION III - EQUIPMENT ALLOWANCES					CMD			
					UIC			
LINE ITEM NO.					EQUIPMENT LEVELS			
PAR	ECC	BASIC	CMD	DESCRIPTION	1	e	f	RMK
a	b	c	d	e	f	g	h	i
				Rifle 5.56mm w/bipod XM16E1	11	10	9	
				Scabbard bayonet knife M8A1	11	10	9	
				Sling universal load carrying	6	6	6	
				Switchboard telephone manual SB-22	1	1	1	
				Terminal Board TM-184	1	1	1	
				Test set radio AN/ARN-F	1	1	1	
				Test set radio AN/URN-1	1	1	1	
				Tool Kit general use tools sig part Nr. TE-33	3	3	3	
				Tool Kit electronic equipment Ground repair of electronic equipment TM-100	4	4	4	221
				Trailer Amphib cargo 1/2 ton 2 wheel w/e	2	2	2	
				Tool kit radio repairman TM-115 ()/G	4	4	3	221
				Truck utility 1/2 ton 4X4 w/e	2	2	2	
				Trunk locker metal wood metal reinforced 31" lg 17" W 13" D	2	2	2	
				Beacon Radio Ptbl w/o amplifier 10w (Tridea)	1	1	1	907
				Radio set AN/VSC-2 mtd in truck 1/2 ton	1	1	1	
				Voice transmission security equipment TSEC KY-38	6	6	5	907
03				AIRLIFT PLATOON HEADQUARTERS (3)				
				Bayonet knife M7 for rifle 5.56mm	6	6	6	
				Burner assembly space heater	3	3	3	600
				Cook set field	3	3	3	
				Decontaminating apparatus ptbl 1 1/2 quart	3	3	3	600
				Detector kit chemical agent VGH	3	3	3	600
				Extinguisher fire carb diox charged hand 15 lb	3	3	3	
				Flashlight plastic baton	18	18	18	
				Flashlight plastic right angle 2 cell	3	3	3	
				Generator set gas engine 1.5KW 60cy lph 2 wire	3	3	3	
				Goggles sun 2 plastic lenses 1 colorless 1 green	3	3	3	904
				Paulin stn duck PHEMR OD 40 ft L 20 ft W	6	6	6	
				Heater space coal or oil 45000 Btu 18 5/8" high	3	3	3	600
				Light set marker emergency runway ptbl battery operated	3	3	3	
				Light set operating area aircraft 1/2 KW Heliport	3	3	3	
				Pump centrif; gas driven base mtd 30/40 gpm	12	12	12	
				Radiacemeter IM-93/ID	6	6	6	
				Revolver cal .38 Pol Fos w/shlder holster	3	3	3	
				Rifle 5.56mm w/bipod XM16E1	6	6	6	
				Scabbard bayonet knife M8A1	6	6	6	
				Stove gasoline burner 1 burner 5500 Btu w/case	3	3	3	
				Table folding legs wood solid top wood legs	3	3	3	
				Telephone set TA-312/PT	3	3	3	
				Trailer amphib cargo 1/2 ton 2 wheel w/e	3	3	3	
				Truck utility 1/2 ton 4X4 w/e	3	3	3	
				Tent lw small	3	3	3	
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SECTION III - EQUIPMENT ALLOWANCES							
LINE ITEM NO.				EQUIPMENT LEVELS			
PAR	ECC	BASIC	CMD	DESCRIPTION			
a	b	c	d	e	f	g	h
04				AIRLIFT SECTIONS (6)			
	A90117			Armament subsystem XM-23	24	24	24
	B49135			Bayonet knife M7 for rifle 5.56mm	42	42	42
	F09390			Cook set field	6	6	6
	H73666			Flashlight plastic right angle 2 cell	24	24	24
	J71304			Goggles sun 2 plastic lenses 1 colorless 1 green	24	24	24
	K31786			Helicopter, utility UH-1D	24	24	24
	M11621			Mask CBR Protective aircraft M24	96	96	96
	N55650			Panel marker aerial liaison type VS17/GVX	24	24	24
	Q42092			Radio set AN/URC-10	24	24	24
	R91244			Revolver, cal 38 Pol Pos w/shldr holster	45	39	36
	R94977			Rifle 5.56mm w/bipod XM16E1	42	42	42
	S41029			Scabbard bayonet knife M8A1	42	42	42
	U44277			Stove gasoline 1 burner 5500 Btu w/case	6	6	6
	W30949			Tool kit A/C mechanics general	24	24	24
	951584			Container, thermal 3 gal	24	24	24
	UNK			Survival kit UH-1 aircraft	24	24	24
	UNK			Voice transmission security equipment TSEC/iY-28	24	24	24
05				ARMED PLATOON HEADQUARTERS			
	A90460			Armament subsystem M5	1	1	0
	A90597			Armament subsystem M3	1	1	0
	B49135			Bayonet knife M7 for rifle 5.56mm	4	4	0
	C37737			Burner assembly space heater	1	1	0
	F09390			Cook set field	1	1	0
	F81469			Decontaminating apparatus ptbl 1 1/2 ct	1	1	0
	G04437			Detector kit chemical agent VGH	1	1	0
	H22122			Extinguisher fire carb diox charged 15 lb	2	2	0
	H73392			Flashlight plastic baton	6	6	0
	H73666			Flashlight plastic right angle 2 cell	1	1	0
	J43918			Generator set gas engine 1.5 KW 60cy lph 2 wire	1	1	0
	J71304			Goggles sun 2 plastic lenses 1 colorless 1 green	2	2	0
	K25890			Heater space coal or oil 45,000 Btu	1	1	0
	K31749			Helicopter, utility, UH-1B	1	1	0
	L64431			Light set marker emergency runway ptbl batt operated	1	1	0
	L64542			Light set operating area aircraft 1/2 KW heliport	1	1	0
	L92386			Gun, Machine LW GP 7.62mm	2	2	0
	M11621			Mask CBR Protective aircraft M24	4	4	0
	M75714			Mount tripod machine gun 7.62mm	2	2	0
	N55650			Panel marker aerial liaison type VS 17/GVX	1	1	0
	N72891			Paulin ctn duck FRANK OB 40 ft L 20ft W	2	2	0
	P90591			Pump air org gas driven base mtd 30/40 gpm	4	4	0
	Q20935			Radiometer LH-93/1B	2	2	0
	Q42092			Radio set AN/URC-10	1	1	0
	R91244			Revolver, cal .38 Pol Pos w/shldr holster	2	2	0
	R94977			Rifle 5.56mm w/bipod XM16E1	4	4	0
	S41029			Scabbard bayonet knife M8A1	1	1	0

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SECTION III - EQUIPMENT ALLOWANCES					CMD			
					UIC			
					30			
PAR	LINE ITEM NO.			DESCRIPTION	EQUIPMENT LEVELS			RMK
	FCC	BASIC	CMD		1	2	3	
a	b			c	d	e	f	g
06	U44277			Stove gasoline burner 1 burner 5500 Btu w/case	1	1	0	
	U93477			Table folding legs woodsolid top wood legs	1	1	0	
	V31211			Telephone set TA-312/PT	1	1	0	
	W30949			Tool kit A/C mechanics general	1	1	0	231
	W95400			Trailer smphib cargo 1/2 ton 2 wheel w/e	1	1	0	
	X60833			Truck utility 1/2 ton 4X4 w/e	1	1	0	
	951584			Container thermal 3 gal	1	1	0	907
	956609			Tent 1w small	1	1	0	
	UNK			Survival kit UH-1 aircraft	1	1	0	907
	UNK			Voice transmission security equipment TSEC/KY-28	1	1	0	907
	ARMED SECTIONS							
	A90460			Armament subsystem M5	2	2	0	
	A90597			Armament subsystem M3	2	2	0	
	B49135			Bayonet knife M7 for rifle 5.56mm	12	12	0	
	F09390			Cook set field	2	2	0	
	H73666			Flashlight plastic right angle 2 cell	6	6	0	
	J71304			Goggles sun 2 plastic lenses 1 colorless 1 green	6	6	0	904
	K31479			Helicopter, Utility, UH-1B	6	6	0	
	L92386			Gun Machine LM GP 7.62mm	12	12	0	
	M11621			Mask CBR Protective aircraft M24	24	24	0	600
	M75714			Mount tripod machine gun 7.62mm	12	12	0	
	N55650			Panel marker aerial liaison tyre V 17/GVX	6	6	0	
	Q42092			Radio set AN/URC-10	6	6	0	
R91244			Revolver, cal .38, Fol Pos w/shldr holster	12	10	0		
R94977			Rifle 5.56 w/bipod XM16E1	12	12	0		
S41029			Scabbard bayonet knife M8A1	12	12	0		
U44277			Stove gasoline 1 burner 5500 Btu w/case	1	2	0		
W30949			Tool kit A/C mechanics general	6	6	0		
951584			Container thermal 3 gal	6	6	0	907	
UNK			Armament subsystem XM21	4	4	0	907	
UNK			Survival kit UH-1 aircraft	6	6	0	907	
UNK			Voice transmission security equipment TSEC/KY-28	6	6	0	907	
07	SERVICE PLATOON HEADQUARTERS							
	B49135			Bayonet knife M7 for rifle 5.56mm	11	11	9	
	C53286			Cabinet, tool and spare parts 39H 46 3/4 W 23 9/16 D	1	1	1	
	D65276			Case field office machine	1	1	1	
	F09390			Cook set field	3	3	3	
	F81469			Decontaminating apparatus ptbl 1 1/2 ct	2	2	2	600
	F97915			Desk field plywood 22 5/8 W 25 7/8 H 14 1/2 D	1	1	1	
	G04437			Detector kit chemical agent VGH	1	1	1	600
	H22122			Extinguisher, fire carb diox charged hand 15 lb	1	1	1	
	H40746			File visible index 156 pockets	1	1	1	
	H73392			Flashlight plastic baton	2	2	2	
	H73666			Flashlight plastic right angle 2 cell	6	6	6	
	H79221			Floodlight set elec ptbl 1/4	2	2	2	600

TABLE OF ORGANIZATION AND EQUIPMENT				NO.				
SECTION III - EQUIPMENT ALLOWANCES				CMD				
				UIC				
PAR	LINE ITEM NO.			DESCRIPTION	EQUIPMENT LEVELS			RMK
	ECC	BASIC	CMD		1	e	f	
a	b			c	d	e	f	g
	J43918			Generator set gas engine 1.5 KW 60cy lph 2 wire AC	1	1	1	
	J71304			Goggles sun 2 plastic lenses 1 green 1 colorless	2	2	2	904
	J46384			Generator set gas engine 3 KW 60cy 120/240	2	2	2	
	L44575			Launcher Grenade 40mm M79	2	2	2	
	N72891			Paulin ctn duck PPMK OB 40ft L 20ft W	1	1	1	
	N96741			Pistol cal .45 automatic	2	2	2	
	Q20935			Radiacmeter IM-93/PD	2	2	2	
	R91244			Revolver, cal. 38 Pol Pos w/shldr holster	1	1	1	
	R94977			Rifle 5.56mm w/bipod XM16E1	11	11	9	
	S41029			Scabbard bayonet knife M8A1	11	11	9	
	U44277			Stove gasoline 1 burner 5500 Btu w/case	3	3	3	
	U93477			Table folding legs wood solid top wood legs	4	4	4	
	V31211			Telephone set TA-312/PT	2	2	2	
	V48441			Tent maintenance frame type w/lower frame pins	1	1	1	600
	W33004			Tool kit automotive maint ord drawing 7540641	1	1	1	
	W30812			Tool kit aircraft inspection technical	2	2	1	
	W32593			Tool kit organizational maintenance Nlt 1 common	1	1	1	
	W37114			Tool kit elec ord drawing 7541473	1	1	1	
	W95537			Trailer cargo 3/4 ton 2 wheel	2	2	2	
	X39735			Truck cargo 3/4 ton 4X4	2	2	2	
	X55627			Truck platform utility 1/2 ton 4X4 w/c	2	2	2	
	X80074			Typewriter non-ptbl 13in carriage elite type	1	1	1	
08				AIRCRAFT MAINTENANCE SECTION				
	A90117			Armament subsystem XM 23	1	1	1	
	B49135			Bayonet knife M7 for rifle 5.56mm	24	21	14	
	F09390			Cook set field	2	2	2	
	F81469			Decontaminating apparatus 1 1/2 quart	4	4	4	600
	H22122			Extinguisher fire carb diox charged hand 15 lb	3	3	3	
	H40746			File visible index 156 pockets	1	1	1	
	H73392			Flashlight plastic baton	2	2	2	
	H73666			Flashlight plastic right angle 2 cell	3	3	3	
	J71304			Goggles sun 2 plastic lenses 1 colorless 1 green	5	5	9	904
	K31786			Helicopter utility UH-1H	1	1	1	
	K85592			Heater duct type rtbl 400,000 Btu	2	2	2	600
	L44575			Launcher Grenade 40mm M79	2	2	2	
	H11621			Mask CER Protective M24	4	4	4	600
	N55650			Panel marker aerial liaison tyre VS 17/CV2	1	1	1	
	N72891			Paulin ctn duck PPMK OB 40ft L 20ft W	2	2	2	
	N96741			Pistol cal .45 automatic	2	2	2	
	Q42092			Radio Set AN/URC-10	1	1	1	
	R91244			Revolver cal .38 Pol Pos w/shldr holster	1	1	1	
	R94977			Rifle 5.56mm w/bipod XM16E1	24	21	14	
	S41029			Scabbard bayonet knife M8A1	24	21	14	
	U44277			Stove gasoline burner 5500 Btu w/case	2	2	2	
	W30812			Tool kit A/C mechanic general	18	16	12	231
	W95537			Trailer 3/4 ton 2 wheel	3	3	3	
	X39735			Truck cargo 3/4 ton 4X4	3	3	3	

TABLE OF ORGANIZATION AND EQUIPMENT				NO.			
SECTION III - EQUIPMENT ALLOWANCES				CMD			
				UTC			
LINE ITEM NO.				EQUIPMENT LEVELS			
PAR	ECC	BASIC	CMD	RMK			
a	b	c	d	e	f	g	h
	X55627	Truck platform utility $\frac{1}{2}$ ton 4x4 w/e	2	2	2		
	946111	Tool set aircraft armament repairman	3	2	0		907
	946112	Tool set aircraft armament supplemental	1	1	0		907
	951584	Container thermal 3 gal	1	1	1		907
	971279	Container parts X4 w/inserts	1	1	1		907
	975520	Mobilizer air mobile tool set	1	1	1		907
	973490	Tool set A/C maint UH-1 helicopter w/shelter	1	1	1		907
	UNK	Survival kit A/C UH-1	1	1	1		907
	UNK	Voice transmission security equipment TSEC/KY -28	1	1	1		
09		AIRFIELD SERVICE SECTION					
	B49135	Bayonet knife M7 for rifle 5.56mm	13	12	9		
	D82099	Chain assembly sgl link w/pear links and 1 grab hook 5/8" by 16ft	2	2	2		
	E92841	Control pressure filling non-vented 5psi shut-off	1	1	1		
	F09390	Cook set field	2	2	2		
	F81469	Decontaminating apparatus ptbl $1\frac{1}{2}$ qt	8	8	8		600
	G21061	Dispensing pump hand dvn 12 gal per 100 rev	1	1	1		
	G68961	Drum fabric collapsible liq fuel 500 gal	10	10	7		
	H51925	Filter separator liq fuel 50gpm 75 psi 2 in inlet 2in outlet	3	3	3		
	H73392	Flashlight plastic baton	6	6	6		
	H73666	Flashlight plastic right angle 2 cell	6	6	6		
	J71304	Goggles sun 2 plastic lenses 1 colorless 1 green	9	9	9		904
	L44575	Launcher grenade 40mm M79	1	1	1		
	L64131	Light set marker emergency airfield runway ptbl batt operated	1	1	1		
	L64542	Light set operating area aircraft $\frac{1}{2}$ KW heliport	1	1	1		
	N96741	Pistol cal .45 automatic	2	2	2		
	N72891	Paulin ctn duck FIMWR 40ft L 20ft W	4	4	4		
	P96640	Pump centrfg gas driven base mtd 100 gpm	3	3	5		
	R94977	Rifle 5.56 w/bipod XM16E1	13	12	9		
	S41029	Scabbard bayonet knife MSA1	13	12	9		
	U44277	Stove gasoline burner 5500 Btu w/case	2	2	2		
	W19880	Tiedown kit coll drum 500 gal cap	3	3	2		
	W95537	Trailer cargo 3/4 ton 2 wheel	2	2	2		
	W95811	Trailer cargo $1\frac{1}{2}$ ton 2 wheel	2	2	2		
	X39735	Truck cargo 3/4 ton 4x4	2	2	2		
	X55627	Truck platform utility $\frac{1}{2}$ ton 4x4	2	2	2		
	X57271	Truck tank fuel servicing $2\frac{1}{2}$ ton 6xc6	2	2	2		
	Y96182	Yoke towing and lifting coll fabric drum 500 gal cap	2	2	1		
	962240	Landing aid night helicopter	1		1		
	UNK	Firefighting equipment set airmobile	1		1		

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TABLE OF ORGANIZATION AND EQUIPMENT
SECTION III - EQUIPMENT ALLOWANCES

NO.
CMD
UIC

PAR	LINE ITEM NO.			DESCRIPTION	EQUIPMENT LEVELS			RMK
	ECC	BASIC	CMD		1	e	f	
a	b			c	d	e	f	g
Code 1				ELECTRONIC COMMAND				
	A71712			Antenna AT-984/G	2	2	2	
	C68993			Cable telephone WD-1/TT MX 306/G	8	8	8	
	E00533			Charger Radiac Detector PP-1578/PD	3	3	3	
	E07547			Chest, trunk type body 28 7/8 in L 18 W 12in H Sig BC-5	2	2	2	
	L01121			Inverter Vibrator PP-68/U	1	1	1	
	M80002			Multimeter AN/URM-5	4	4	4	RMK
	Q20935			Radiacmeter IM-93/PD	12	12	10	
	Q21072			Radiacmeter IM-108/PD	1	1	1	
	Q37005			Radio Set AN/PRC-25 w/e	5	5	4	RMK
	Q42092			Radio Set AN/URC-10	32	32	25	
	Q54618			Radio Set AN/VRC-47 mtd in trk 1/4 ton	1	1	1	
	Q54692			Radio Set AN/VRC-47 mtd in trk 3/4 ton	1	1	1	
	Q55299			Radio Set AN/VRC-49 mtd in trk 1/4 ton	1	1	1	
	Q53680			Radio Set AN/VRC-24 mtd in trk 1/4 ton	1	1	1	
	Q78282			Control Group AN/GRA-39	3	3	3	
	R52228			Rectifier DC Power Supply ptbl Sig B-2	1	1	1	
	R55920			Reel Cable 9" diam 8" reel RL-39 Sig DR-8	6	6	6	
	R59203			Reeling Machine Cable hand RL31	1	1	1	
	U81707			Switchboard Telephone Manual SB-22	1	1	1	
	V31211			Telephone Set TA-312/PT	12	12	11	
	V54548			Terminal Board TM 184	1	1	1	
	V86520			Test Set Radio AN/URM-8	1	1	1	
	V86027			Test Set Radio AN/URM-1	1	1	1	
	UNK			Radio Set AN/VSC-2 mtd in trk 1/4 ton	1	1	1	
Code 2				MOBILITY COMMAND				
	B15688			Bag Water sterilizing	2	2	2	
	C37737			Burner Assembly Space Heater	9	9	8	RMK
	D82099			Chain assy Sgl Link with pear links and 1 grab hook 5/8 in x 16 ft	2	2	2	
	E39823			Clock, Message Center Chelsea M2	1	1	1	
	E63317			Compass Magnetic Lensatic 1.58 in diam card	6	6	6	RMK
	E75085			Computer Air Nav Aluminum with case type CPU 26 A/P	12	12	12	
	E92641			Control Pressure filling non-vented 5psi cutoff	1	1	1	
	G21061			Dispensing pump hand dvm gas-kerosene 12 gal per 100 Rev	1	1	1	
	H22122			Extinguisher fire carb diox charged hand 151 lb	10	10	8	
	H51925			Filter separator Liq fuel 50 gpm 75psi 2 in inlet 2 in outlet	3	3	3	
	H73392			Flashlight plastic baton	72	72	66	
	H73606			Flashlight plastic right angle	57	57	50	

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TABLE OF ORGANIZATION AND EQUIPMENT				NO.			
SECTION III - EQUIPMENT ALLOWANCES				CMD			
				UIC			
				34			
PAR	LINE ITEM NO.			EQUIPMENT LEVELS			RMK
	ECG	BASIC	CMD	1	e	f	
a	b	c	d	e	f	g	h
	H79221		Floodlight Set elec ptbl	2	2	2	
	J43918		Generator Set Gas engine 1.5KW 60cy 1ph 2 wire AC	5	5	4	
	J46110		Generator Set Gas engine 3KW28 DC skid mt	2	2	2	
	J46384		Generator Set Gas engine 3KW 60cy 120/240	2	2	2	
	J46658		Generator Set Gas engine 5KW 60cy 1ph 4 wire 120/240	2	2	2	
	K25342		Heater immersion liq fuel fired 30" lg	8	8	8	
	K25479		Heater immersion liq fuel 37 1/2" lg	1	1	1	
	K25890		Heater space coal or oil 45000 Btu 18 5/8" high	9	9	8	RMK
	K31749		Helicopter utility UH-1B	7	7	0	
	K31766		Helicopter, utility UH-1D	25	25	25	
	K85592		Heater duct type portable 400,000 Btu	2	2	2	RMK
	L61459		Light fixture fluorescent 3 40W	4	4	4	
	L63994		Light set gen illum 25 outlet	3	3	3	
	L64131		Light set marker emergency airfield R/W ptbl batt operated	5	5	4	
	L64542		Light set operating area aircraft 1/2KW heliport	5	5	4	
	P90591		Pump centrfg gas driven base mtd 30/40 gpm	16	16	12	
	P90610		Pump centrfg gas driven base mtd 100 gpm	8	8	5	
	U11152		Sprayer insect hand 2 gal	1	1	1	
	W30812		Tool Kit aircraft inspection technical	2	2	1	
	W30949		Tool kit aircraft mechanics general	49	47	36	RMK
	W32593		Tool kit organizational NR 1 common	1	1	1	
	W95400		Trailer amphib cargo 1/2 ton 2 wheel w/e	9	9	8	
	W95537		Trailer cargo 3/4 ton 2 wheel w/e	10	10	10	
	W95811		Trailer cargo 1 1/2 ton 2 wheel w/e	3	3	2	
	W98825		Trailer tank 1 1/2 ton 2 wheel 400 gal w/e	1	1	1	
	X39735		Truck cargo 3/4 ton 4x4 w/e	10	10	10	
	X40146		Truck cargo 2 1/2 ton 6x6 LWB w/winch w/e	2	2	1	
	X55627		Truck platform utility 1/2 ton 4x4 w/e	7	7	7	
	X57271		Truck tank fuel servicing 2 1/2 ton 6x6 w/e	2	2	2	
	X60833		Truck utility 1/2 ton 4x4 w/e	9	9	8	
	Code 3		WEAPONS COMMAND				
	A90117		Armament Sub-System XM-23	25	25	25	
	A90460		Armament Sub-System helicopter 40mm M5	3	3	0	
	A90597		Armament Sub-System helicopter 2.75" RKT M3	3	3	0	
	B49135		Bayonet knife X7 for rifle 5.56mm	135	130	100	
	B67218		Binocular 7x50 Military Reticle	4	4	4	RMK
	L44575		Launcher Grenade 40mm M79	8	8	8	
	L92386		Gun Machine, 7.62mm LWGP	16	16	2	
	M75714		Mount, tripod, Machine gun 7.62	16	16	2	
	N96741		Pistol Cal .45 automatic	9	9	9	
	R91244		Revolver, cal .38, Pol Pos w/shldr holster	68	60	45	
	R94977		Rifle 5.56 w/bipod XM16E1	135	130	100	
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TABLE OF ORGANIZATION AND EQUIPMENT					NO.			
SECTION III - EQUIPMENT ALLOWANCES					CMD			
					UIC			
PAR	LINE ITEM NO.			DESCRIPTION	EQUIPMENT LEVELS			RMK
	ECC	BASIC	CMD		1	e	f	
a	b			c	d	e	f	g
	S41029			Scabbard bayonet knife M8A1	135	130	100	
	Y34027			Watch wrist non-maintainable	20	20	20	
	Code 5			MUNITION COMMAND				
	E74037			Compressor, reciprocating power driven 3½ cfm	1	1	1	RMK
	F81469			Decontaminating apparatus portable 1½ quart	22	22	21	RMK
	G04437			Detector kit chemical agent VGH	6	6	5	RMK
	M11621			Mask CBR protective aircraft M24	128	128	100	RMK
	Code 8			SUPPLY AND MAINTENANCE COMMAND				
	A03210			Accessory outfit gasoline field range	1	1	1	
	A17126			Adding and subtracting machine 10 digit AC/DC 110V	1	1	1	
	B29464			Barber Kit w/case	1	1	1	
	C53286			Cabinet, tool and spare parts 39 H, 46 3/4 W, 23 9/16 in D	1	1	1	
	D65276			Case field office machine 18½, 22½, 34½	5	5	5	
	F09390			Cook set field	19	19	16	
	F97915			Desk field plywood 22 5/8 W 25 7/8 H 14½ D	3	3	3	
	G68961			Drum fabric collapsible liq fuel 500 gal	10	10	7	
	H40746			File visible index 156 pockets	4	4	4	
	H83817			Food container insulated rectangular w/inserts	12	12	10	
	J71304			Goggles sun 2 plastic lenses 1 colorless 1 green	58	58	50	
	N55650			Panel marker aerial liaison type VS 17/GVX	38	38	31	
	N72891			Paulin ctn duck FMWWR OD 40ft L 20ft W	16	16	14	
	R14154			Range outfit gasoline	4	4	3	
	R75709			Repair kit tentage	1	1	1	
	S27405			Safe two shelves 1 drawer 2 compartments 26 H 17 W 17½ D	2	2	2	
	T73136			Sling universal load carrying	6	6	6	
	U32924			Strapping kit steel strapping band 3/8 in to 2 in strap W	1	1	1	
	U44277			Stove gasoline burner 1 burner 5500 Btu w/case	19	19	16	
	U93477			Table folding legs wood solid to woodlegs 361, 24W 27 25/32H	14	14	13	
	V05712			Tableware outfit field w/components	9	8	5	
	V48441			Tent maintenance frame type w/lower frame pins	1	1	1	
	V49948			Tent kitchen flyproof M1948 FM WWR w/cover screen lines	1	1	1	
	W19880			Tie down kit roll fabric drum 500 gal cap	3	3	2	
	W25757			Tool kit general use tools sig part Nr TE-33	3	3	3	
	W31634			Tool kit armorers ord drawing Nr 7540640	1	1	1	
	W33004			Tool kit automotive maintenance ord drawing 75 406 L1	1	1	1	
	W34648			Tool kit carpenters Eng SM 5-4-5180-504	1	1	1	
	W37114			Tool kit electricians No 2 ord drawing 7541473	1	1	1	
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TABLE OF ORGANIZATION AND EQUIPMENT					NO.			
SECTION III - EQUIPMENT ALLOWANCES					GMD			
					UTC			
PAR	LINE ITEM NO.			DESCRIPTION	EQUIPMENT LEVELS			RMK
	ECC	DAGIC	GMD		1	2	3	
a	b	c	d	e	f	g	h	i
	W37251			Tool kit electronic equipment rep: gnd rep of elec equip	4	4	3	RMK
	W49992			Tool kit radio repairman TK-115 ()/G	4	4	3	RMK
	X65121			Trunk locker metal wood metal reinforced 31 L 17 W 13 D	2	2	2	
	X80074			Typewriter non-ptbl 13in carriage elite type	4	4	4	
	X80759			Typewriter ptbl 42 keys upper and lower case elite type	1	1	1	
	Y96182			Yoke towing and lifting coll fabric drum 500 gal cap	2	2	1	
				DEVELOPMENTAL ITEMS				
	UNK			Beacon Radio Ptbl w/o amplifier 10w (Tridea)	1	1	1	RMK
	UNK			Camera, polaroid model 101	1	1	1	RMK
	UNK			Container, thermal 3 gal	32	32	25	RMK
	UNK			Container parts X4 w/inserts	1	1	1	RMK
	UNK			Command Console for UH-1 helicopter	1	1	1	RMK
	UNK			Drum fabric water collapsible	2	2	2	RMK
	UNK			Firefighting equipment set airmobile	1	1	1	RMK
	UNK			Generator, st, turbine eng 28v DC 300 amp	1	1	1	RMK
	UNK			Kit crash investigation	1	1	1	RMK
	UNK			Landing aid night helicopter	1	1	1	RMK
	UNK			Mobilizer air mobile toolset	1	1	1	RMK
	UNK			Survival kit UH-1 aircraft	32	32	25	RMK
	UNK			Tent frame type expandable 16 by 16	2	2	2	RMK
	UNK			Tent lightweight small	4	4	3	RMK
	UNK			Tent lightweight medium	2	2	2	RMK
	UNK			Tool set aircraft armament repairman	3	2	0	RMK
	UNK			Tool set aircraft armament supplemental	1	1	0	RMK
	UNK			Voice transmission security equipment TSEC/KY -28	32	32	25	RMK
	UNK			Voice transmission security equipment TSEC/KY -38	13	13	12	RMK
				REMARKS				
	202			1 per powerman				
	221			1 per Avn Eltr eq mech, radio mech, sr radio mech				
	231			1 per crew chief, hapttr mech sr hapttr mech				
	600			WAB CONARC Com or TOC				
	800			MBI as directed by CO				
	904			1 per helicopter and truck				
	907			Not standardized in Army supply system. Line item number tentative				
	RMK			Basis of issue remark appears in detail portion of this TOE				

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DEPARTMENT OF THE ARMY
HEADQUARTERS 1ST AVIATION BRIGADE
AFO San Francisco 96307

AVBD-C

22 July 1966

SUBJECT: Tactical Lessons Learned #1

TO: SEE DISTRIBUTION

This is the first of a series of Tactical Lessons Learned which will be published by the Brigade with a view toward "spreading the word" so that successful techniques employed by one unit may be made known to others and so that we may all learn from each others mistakes.

The majority of the Lessons Learned, which we have listed, have been extracted from the Brigade units' Quarterly Report of Lessons Learned for February, March and April 1966, although there are a few gleaned from other sources.

It is worthy of note that most of these items were found in the reports of more than one of our units. It is also noteworthy that very few of these are really new lessons learned but are modifications of old lessons or are just plain old lessons which have been relearned.

It has been interesting to note that most of these lessons are discussed to one degree or another in the 1st Aviation Brigade Operations Manual. Where this is the case, the page number of the manual is shown in parenthesis behind the item for easy reference.

1. Item: Control and Coordination (3-5, 4-11)

Discussion: Frequently, during airmobile operations, air strikes or artillery fires have occurred in the operational area without the prior knowledge or approval of the command group in the C & C aircraft. Such occurrences have resulted in unnecessary hazards to the aviation and ground elements and have resulted in last minute changes in the plan at critical points in the operation. Such last minute changes are difficult to disseminate to all subordinate elements and often result in confusion and a less than desirable airmobile operation.

Observation: During the conduct of an airmobile operation, the command group in the C & C aircraft must be capable of controlling all fire support elements which are capable of influencing the operation. This is accomplished by insuring that the command group includes a FAC or ALO, and Artillery FO or LNO, and any other fire support personnel as appropriate.

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Each of these members of the command group must have positive communications with his own fire support means and must have the authority to control that means.

2. Item: Control and Coordination (3-5, 3-6, 4-15, 5-3, 5-4, 11-5, 11-6)

Discussion: Frequently, it has taken excessive periods of time to return fire when fired upon during airmobile operations because the AMTF Commander, Mission Commander or gunship leaders have not known the exact location of friendly troops on the ground when fire is received. In some cases this has resulted from aviators not being completely familiar with the ground plan. In others the ground forces have been very slow to mark their locations or report their locations as specified in the plan.

Observation: Ground forces must be prepared to mark their locations, on call, by a mutually understood system. Smoke, panels, flares and faithful reporting of easily recognizable phase lines or check points are all successful means of identification. All aviators in an airmobile operation must be familiar with the ground plan and must be aware of the situation as it develops. Effective, responsive fire support cannot be achieved until these requirements are met.

3. Item: Planning (2-1, 3-4)

Discussion: Hasty extractions, when enemy contact is imminent or when the enemy is in contact, has on occasion resulted in a very small ground force remaining for the last lift. As a result this small force has been unable to adequately secure the PZ after the remainder of the force has been extracted and have suffered unnecessary casualties. These remnants of the original force are seldom an element which has true tactical integrity and whose effectiveness has thus been reduced.

Observation: Extractions under fire are particularly hazardous and should be carefully planned even under stress. The last element to be lifted should be a large enough to defend itself until extracted and sufficient lift must be made available to effect a simultaneous lift of the entire rear guard if at all possible. Piecemeal extraction of odd elements, if necessary, should be accomplished prior to the last lift so that tactical integrity of the rear guard can be insured.

4. Item: Planning (3-1, 3-2, 3-7, 9-1)

Discussion: Frequently missions are received on very short notice which does not allow time for the desired planning, reconnaissance and coordination. Many times the plans for the following days operations are made after dark and missions have had to be delayed until such reconnaissance and coordination could be effected the next morning.

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Observation: Aggressive habitual liaison with supported units will frequently enable aviation units to gain early knowledge of pending operation. Even sketchy information, received in time, can be used to begin planning and may allow reconnaissance and coordination earlier in the planning phases. Adequate SOPs and set plays reduce the time required to react to hurried missions or changing situations. Waiting for the supported unit to complete its plans before attempting to prepare the aviation plan contributes only to a mutually unacceptable operation.

5. Item: Crew Chief and Door Gunner Safety

Discussion: Crew chiefs and door gunners have been observed loosening their belts to more comfortably adjust their firing positions. On one occasion the crew chief had loosened his seat belt on landing approach; the aircraft developed trouble during the approach and crash landed, rolling on its side. The crew chief was the only injury. He was thrown out of the aircraft and pinned beneath it.

Observation: All personnel riding in aircraft must keep their seat belts snugly adjusted.

6. Item: Positioning of troops for airmobile operations.

Discussion: On numerous occasions the operational area was located a considerable distance (40-50 miles) from the staging area. Long turn around times for the troop lifts, resulted in a higher risk for forces in the objective area and prolonged the duration of the airlift phase.

Observation: Whenever possible, troops should be repositioned to a forward staging area to reduce turn around time on lifts and allowing the AMTF to mass his forces in the objective area more quickly. If the forward staging area is prepared, consideration might be given to air movements to the staging area by fixed-wing aircraft (CV-2 or AF C-123 or C-130).

7. Item: Landing Zone Selection. (3-3, 4-1, 12-5)

Discussion: In many instances, landing zones selected by ground elements are not suitable for helicopter operations. Ground units are not cognizant of obstacle restrictions, spare requirements, density altitude restrictions, and requirements for angles of approach and departures.

Observation: It is mandatory that the Air Mission Commander (or his LNO) and the AMTF Commander jointly reconnoiter the proposed LZ(s) in the same helicopter.

8. Item: Landing Zone Preparation (3-5, 4-10, 4-11)

Discussion: The Viet Cong are known to carefully analyze our tactics to determine patterns or habits which they can use to their advantage. Too often we have used long stereotyped preparations on LZs. The normal pattern seems to be a 10-15 minute air strike, followed by a lengthy artillery preparation, followed by helicopter gunships, followed by the assault lift. These lengthy preparations have served to alert the VC and have allowed them sufficient time to react to what they have learned to expect will be an airmobile assault.

Observation: Landing zone preparations should be varied frequently, should be short and violent and should sometimes be accompanied by simultaneous or consecutive preparations on other likely LZs in the area as a feint. When intelligence is sufficient and/or the situation warrants, it is wise, on occasion, to make an airmobile assault without a preparation in order to achieve surprise.

9. Item: Use of fire and smoke producing ordnance in LZ preparations. (4-10)

Discussion: Fires and visibility reducing smoke resulting from the use of napalm, white phosphorus in landing zone preparations have seriously interfered with airmobile assaults. On some occasions, friendly troops have been forced by fire, caused by the preparation, to abandon LZs. On at least one occasion, a disabled but repairable helicopter was completely destroyed by a fire which was started from a napalm prestrike.

Observation: When the area in and around an LZ is likely to burn, restrict the type of ordnance to be used during the preparations to that which is least likely to cause fires (fragmentation bombs, CRU's, cannon fire, high explosive with VT fuses etc.). This is not to say that napalm and white phosphorus should never be used. Certainly some targets are best attacked using that ordnance but commanders should weigh the risk of possible undesirable results from their use. In RVN during the rainy seasons fire may not be a problem.

10. Item: Congested Landing Zones. (4-11)

Discussion: Throughout the area in the central highlands, as in some other areas, LZs are small and frequently are only marginally adequate. Normal procedures for U.S. units has been to collocate CPs with a company size security force and their DS artillery in the LZ. This procedure almost always results in further congesting already marginally adequate LZs and subsequent lifts into the area are hazardous at best.

Observation: The mission commander or his LNO must constantly strive to convince the ground commander to leave the landing area of the LZ open for use by helicopters. Tents, supply stockpiles etc. should be

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moved away from the landing sites as rapidly as possible to prevent costly accidents such as loss of aircraft or tent blow-down from rotor wash.

11. Item: Use of door gunners on lift helicopters. 2-1, 2-2, 12-6

Discussion: The use of door gunners on lift aircraft has become a contraversial question. Some feel that door gunners should be mandatory on all missions, others that door gunners are not required on lift helicopters. The use of door gunners restricts the mission capability of the lift aircraft particularly in areas where density altitude is a particular problem. Suppressive fire provided by door gunners is or should be restricted in an LZ or objective area after the assault lift to prevent shooting into friendlies in the area. Door gunners on the inside of formation flights have restricted fields of fire due to the proximity of other helicopters in the flights. Single ship resupply or administrative missions are frequently unprotected unless door gunners are used.

Observation: Door gunners should continue to be authorized and utilized as mission requirements and good judgement dictate. When lift is critical and other means of suppression are available, door gunners should not be carried (or carried only on selected aircraft). When there is a valid requirement for suppressive fires, which cannot be provided by another means, door gunners should be carried. Each mission should be evaluated based on its specific requirements and considerations.

12. Item: Control of Army aircraft in airmobile operations. (I-3, definition of Mission Commander)

Discussion: For one portion of Operation Lincoln, CH-47s were detached from the aviation battalion in support of the operation and made available on a mission request basis to the supported infantry brigade. This created problems in coordination and planning over which the mission commander (aviation battalion commander) had no control. Support was not as responsive as desired by the brigade and at one time during the operation in a small LZ, assault landings were disrupted by the unexpected arrival of three CH-47s lifting artillery into the same LZ.

Observation: All Army aircraft involved in an operation (with the possible exception of Dust-off) must be controlled by the mission commander. Centralized control is a precept of war as old as war itself. The advent of airmobility has not changed the necessary basic command and control relationships for coordinated operations.

13. Item: Employment of O-1 aircraft during airmobile operations. (10-2, 10-10)

4/2

Discussion: On 10 March 1966, during Operation Garfield, O-1 support was increased from two aircraft to six. The results of the increased capability were soon recognized by supported units and have been demanded during subsequent operations.

Observation: The O-1 should be considered when planning airmobile operations. It has the capability to perform many valuable services for the ARTF such as visual reconnaissance, radio relay, artillery observation directing airstrikes or to vector low level helicopter formations along prescribed flight routes, or gunships to target of opportunity. Its endurance and relative stability make it a better aircraft than the helicopter for many missions and its use frees helicopters for other missions for which they are better suited.

14. Item: Sling loads (3-1, 4-7, 6-3, 12-1)

Discussion: Many ground units are not aware that they must provide their own slings and prepare their own sling loads. Much time has been lost in pickup zones because CH-47 units have had to rig loads and attempt to obtain slings for supported units after an operation is in progress.

Observation: Aviation commanders or their LNOs must make supported units aware of their responsibilities for sling loads early in planning phases for an operation. Aviation units should assist their supported units in training sling load rigging and hook up teams and assist these units in compiling their requirements for sling load equipment.

15. Item: Overloading aircraft (12-5)

Discussion: Several aircraft accidents have occurred as a result of overloading aircraft for existing conditions. Pressure of combat operations, an eagerness to accomplish the task at hand, pressure from supported unit commanders and sometimes even from aviation commanders, have caused aviators to exceed aircraft capabilities. Lives, equipment and valuable aircraft have been lost as a result.

Observation: The use of the Go-No-Go procedure is the best solution for this problem. All UH-1 aviators must be knowledgeable and proficient in its use and must abide by the information provided to them by the use of the procedure. There is no excuse for an accident which is caused by the failure to properly use this valid accepted procedure. The check requires only seconds to perform and will prevent accidents, save embarrassment, time, equipment, and lives.

16. Item: Aviator Fatigue (12-4)

Discussion: It has become common in RVN, for aviators to fly 100 hours or more per month. This exceptional amount of flight time has far

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exceeded what has commonly been accepted as a safe maximum number of flying hours for an aviator. The endurance capability varies between individuals and these long flight hours may result in accidents unless aviators are closely monitored for signs of fatigue.

Observation: Aviation commanders at all levels and flight surgeons must be alert to detect signs of pilot fatigue. Aviators should be rotated on missions and given periodic breaks when the mission permits. Pilot fatigue should be considered as a factor in planning airmobile operations.

17. Item: Helicopter approaches to pinnacles.

Discussion: Many aviators have a tendency to make approaches to pinnacles too shallow. This type of approach has three distinct disadvantages. It forces the pilot to operate in the area of maximum turbulence for a longer period during the approach. It restricts observation of the landing area at the critical period just before touchdown by requiring a flare. Full effect of the low reconnaissance (short final) is lessened by reduced visibility and a lower angle of sight allowing less reaction time with which to abort, should it be necessary.

Observation: The initial entry for a pinnacle approach should range from normal to a steep angle of approach commensurate with wind conditions. This technique gives the aviator the maximum advantage and reduces the possibility of error to a minimum.

18. Item: Reduced fuel consumption (UH-1).

Discussion: Conservation of fuel in UH-1 aircraft reduces the number of refuelings required in the conduct of an operation and shortens the time required to complete the operation.

Observation: Fuel consumption may be reduced as much as 100 lbs per hour by exercising rigid RPM control when maximum power is not required. This is accomplished by reducing RPM to 6350 in cruise flight as explained in the "Dash 10" for the aircraft.

19. Item: Reconnaissance and Surveillance program. (10-4.)

Discussion: To be truly effective the reconnaissance and surveillance program must include plans for reconnaissance and surveillance at varying times throughout the 24 hour period of each day. Patterns established by regular schedules have in the past allowed the VC to learn schedules and successfully avoid detection.

Observation: Plans must be constantly revised to insure that habit patterns are not established.

20. Item: Low level reconnaissance for O-1 VR program. (10-4)

Discussion: Effective performance of the VR mission requires low level operation. Early concepts of performing VR from altitudes above 1500 feet to avoid ground fire have proved to be invalid. The aircraft operated at this altitude were relatively safe from ground fire but the VC also remained safe from detection.

Observation: A VR flight must be flown at whatever altitude is necessary to insure that VC or indicators of their presence are detected. The optimum routine altitude appears to be 800 to 1000 feet for initial detection. Passes at the lowest possible altitude are required for positive identification and verification of sightings. Aircraft flying at these lower altitudes have taken numerous hits from ground fire however losses have been very light. The O-1 can take several hits and continue to fly.

21. Item: CV-2 loading and unloading (6-4)

Discussion: CV-2 operations have consistently experienced ground delays and excessive ground time due to inadequate facilities and untrained personnel for loading and unloading supplies and equipment. Other delays occur due to "No Show" or late arrivals by the using agencies.

Observation: There appears to be no immediate solution to the lack of loading facilities. It cannot be expected that each airfield serviced by CV-2s will have special loading equipment such as fork lifts. Savings can be made however, by having CV-2 liaison officers assist users in training their personnel in loading and unloading procedures and by informing using agencies whenever a "No Show" or late arrival occurs.

CHOPPERS AMBUSH VC AMBUSH

Ten Viet Cong were killed and their automatic weapons position destroyed last week in a reverse ambush by US Army helicopters seven miles North of Qui Nhon.

For several days a small force of Viet Cong had been shooting at choppers of the 17th Aviation Group's 174th Airmobile Company, 14th Aviation Battalion as the ships flew rations and ammunition into remote outposts manned by elements of the Republic of Korea Capital Infantry Division. Each day armed helicopters were sent to the scene only to find that the enemy patrol had disappeared.

Seeking a quick solution, authorities decided to "ambush" the communist ambush.

One pilot, Major Bernard R. Cobb, of Marlton, N. J., and two copter crewmen, SSC Herman J. Grey, Thayer, Mo., and SGT Dexter Frisby, Middletown, Ohio - were selected from a host of volunteers; and packing weapons, binoculars and C-rations, the three were helilifted to the vicinity, to set up an observation post.

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After two days of watching and waiting, they spied a VC patrol getting into position. Cobb immediately radioed 174th Operations, and armed Hueys were dispatched to orbiting positions just out of sight from the ambush point.

When the next supply helicopter flew into the outpost, the Viet Cong began to fire. But this time a call from Cobb brought gunships from hiding, straight to the target. In seconds the armed Hueys were on the scene, annihilating the VC patrol before they had a chance to hide.

Subsequent resupply flights have been conducted into the outposts without further enemy harassment.

REPELLING MORTAR ATTACKS

The success or failure of repelling mortar attacks on an airfield is directly proportional upon the amount of time that counter fire can be brought to bear on the enemy position. This length of time is in turn dependent upon how rapidly the armed helicopter can get airborne, with a correct direction of attack. Vinh Long airfield was mortared for the first time on 29 May 1966, and everything went as rehearsed during the monthly training alerts until VC mortars stopped firing and displaced to new positions. During the first three or four minutes of an attack, personnel are running to their duty posts and armed helicopters. This period of time is the most critical for pinpointing the exact location of enemy positions. A need was felt to employ a compass rose at a map location and a sighting device which could be immediately utilized to give the armed helicopters a compass direction upon departure. The device was immediately built and placed in the tower. It is of wooden construction and shaped somewhat like a half 55 gallon drum which holds a very low intensity light. The top is covered by 2 pieces of plate glass between which is a map of the desired area. In the center of the glass is an arrow with a horizontal sighting device. The map under the glass is perfectly oriented with the airfield and on the outer edge of the glass a magnetic compass rose is painted with block numbers.

On 7 June 1966 Vinh Long airfield was again mortared, and the Company Commander was in the tower within one minute after the first round hit, and visually sighted the muzzle flashes of the 82mm mortars and 57mm recoilless rifle in three different locations. The first armed helicopters departed two minutes later, and by utilizing the tower radio, he gave them a magnetic direction and an approximate distance. The VC stopped firing at this time, however the armed helicopters, who have the same map as the sighting device, were able to bring immediate fire on the suspicious tree line and in fact did silence the mortar located there. When the other two VC weapons began firing again, he requested another armed helicopter to

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give him a magnetic azimuth from another known map location and through
bisection, determined the exact location of the remaining two VC positions.
One hour later, an immediate reaction force of 80 ARVN soldiers carried by
10 UH-1Bs were landed into these positions.

DISTRIBUTION:

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DEPARTMENT OF THE ARMY
HEADQUARTERS, USA AVIATION BRIGADE (PROVISIONAL)
APO US Forces 96307

AVBD

13 May 1966

COMMANDER'S NOTES
NUMBER 3

1. GENERAL: The following matters of guidance, command interest and policy are published for information and appropriate action of those concerned. Most of the items were covered at the commanders conference of 6 May 1966.

2. LEADERSHIP: Although we are constantly mindful of our responsibilities as leaders, and know the principles which must be used as tools of our trade, I would like to reflect upon and emphasize some of the principles that require "bucking up" in the Brigade at this particular time.

a. Take care of the troops. We must do all possible to make living, operational and working conditions as good as operating circumstances permit. I don't expect any pampering or slippage of standards in the process - just good hard work in the direction of progressive acquisition of the highest state of proficiency on the job, and development of living and working areas.

b. Train our people to do the job. Training, and the attainment of high operating standards, provides us with the desired capability to do our job in the field. By-products of a high state of training are pride in self and unit, and most importantly, the saving of lives and materiel. You can't beat the axiom "Training equals safety and safety equals training."

c. Make your presence known and felt. I expect each of us who wears green tabs to spend sufficient time with the troops to know what they are doing, thinking and how they are performing.

3. TRAINING: All personnel joining the Brigade require training and indoctrination. We cannot approach this problem as in COMUS, but should be able to progressively work our people into positions of responsibility through demonstrated proficiency. One approach being used by an Aviation Battalion is particularly sound and beneficial:

a. Each new aviator is checked to ascertain his knowledge of the unit aircraft. He is tutored to eliminate lack of knowledge or shortcomings in capabilities and procedures.

b. He is then placed in the co-pilot seat, regardless of rank, and receives area and unit/theater procedural orientation during administrative type missions for about 25 hours.

c. The next step is to fly co-pilot during CA and DCS missions until, through demonstrated proficiency, he is ready to fly any mission as aircraft commander. My point is, that the approach to training described above provides us with sound, and well qualified aviators to fly our combat missions. This approach does, in fact, combine training with mission accomplishment, and does ensure that our best qualified aviators are filling the right seat.

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4. AIRCRAFT COMMANDERS: I would like to see our people designated aircraft commander in the particular type unit aircraft being flown when they have demonstrated their flying ability and proficiency in unit mission performance. We are examining the possibility of logging AC time on aviator flight records to accurately reflect duties performed in the air.

5. SAFETY: Accident prevention is not a new subject or study area to any of us. As mentioned in previous notes our "dumb" accidents continue at an excessive, unacceptable rate. A few additional pointers we must emphasize are:

- a. Foresee safety problems and problem areas.
- b. Re-educate, as required, before bad habits or inaccurate ideas cause accidents.
- c. Anticipate hazards and pitfalls in materiel, operating procedures and operations planning.
- d. Prevent downwind operations.
- e. Mark obstructions in base areas and use guides whenever and wherever possible.
- f. Use climbing and descending "clearing" turns during single aircraft operations. Safe flying and ground handling procedures are not new, but are sometimes ignored or forgotten.

6. AUTOROTATIONS: I am willing to accept a few bent birds to insure that all of our aviators can make safe landings in combat or mechanical failure situations. As previously stated, and hereby emphasized, autorotation practice must be controlled and supervised!

7. PROCEDURES: Two items of personal interest and concern are loss of RFM accidents and flying in column or trail formations. Both items were covered in Commander's Notes Number 2. I mention them again as I have not noted sufficient action taken per earlier guidance.

8. GUN MOUNTS: The current door gun mounts are not satisfactory. By having the gun and mount outside the bird we lose speed and efficiency, and decrease engine life through constant application of additional power to attain required airspeeds. I believe it is possible to develop a good mount which can be secured internally and from which the machine gun is stowed and fired with just the barrel protruding from the aircraft. I would like to get some ideas and drawings from the field on this matter, realizing a different design will be required for the "B" and "D" models. Troop entry and exit requirements for the "D" should be considered in placement of and type mount developed. In conjunction with reduction of drag, and increased engine wear, a deflector has been fabricated which will keep the wind out of the cabin area where it normally induces drag and buffets the gunners. This modification is not yet standard, but can be made and installed quite readily with good results. We will put out copies of the drawings for your implementation.

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9. GCA: Bad flying weather is part of our business. It was necessary to pool all GCA equipment to provide GCA coverage for operations throughout the theater. Each tactical airfield programmed for use in support of combat operations must be GCA equipped prior to commencement of the operation. A recent example was deterioration of weather in the vicinity of one of our strips just prior to the time that FV transported supplies were to start arriving. There was no GCA employed at the strip on a "prior planned" basis. The operation would have been terminated, literally before it started, had IFR conditions set in. Fortunately the weather held and the operation was successful. Be sure to request GCA support as far in advance as possible. At times in the future it may be necessary to pull fixed equipment to support our tactical effort.

10. R & R: Incountry R & R is being reduced. Dalat and Saigon are no longer available for pass or rest purposes. Vung Tau will continue R & R on a limited basis. Steps are being taken to increase out of country R & R facilities and quotas. We should be able to do something along the lines of rest or recreation near our unit areas on a limited basis. Look into it and see what possibilities exist or can be developed. Ordinary leave to Hawaii during the normal one year tour is not authorized.

11. BASE SECURITY: As the Brigade continues to grow, and units are relocated to relatively undeveloped areas, the problem of base security will become considerably more critical than at present. Self-help measures which should be considered for implementation include unit gun ship alert. As a matter of policy I expect every unit to have two gun birds on one or two minute standby alert for quick reaction purposes. Crews must sleep on site, the birds must be revetted. In several instances recorded to date, units have made good use of security forces through establishment of a few guard posts and small roving patrols instead of many stationary posts. Where possible we should seek help from nearby ARVN units. A TRK was recently dispatched from this headquarters outlining procedures to be used in hiring civilian mercenaries for performance of security duties through Civilian Personnel Office channels. These guards can be equipped, trained and armed to bolster our security forces.

12. RENETTING OF AIRCRAFT: The 17th Group recently completed test and evaluation of the effectiveness and practicality of PSP revetments. Results were extremely favorable and should save us many birds in future mortar attacks. A poop sheet will be prepared and distributed by the 17th as to how PSP revetments are to be built. Essentially, the revetment is made of a double layer of PSP, over-lapped slightly so that the holes are covered. One end is buried in the ground. The resulting "fence" is highly effective against small arms, mortar and grenade fragments. 55 gallon drums filled with sand also furnish excellent revetting material. As a long range project I want all units to begin construction of aircraft revetments NOW. I don't expect them to be completed in the next week or month, but I do expect progress as materials and manpower are available. Barriers should be at least cabin high, safe to hover into and out from and facing the most probable direction of fire.

13. CV-2, CV-7 OUTLOOK: You are all aware of the recent decision to turn over CV-2 and CV-7 assets to the Air Force. We must make every effort to properly train our successors and make the transition smoothly with no loss of

mission effectiveness. The Air Force is expected to be as fully responsive to all Army requirements for CV-2, CV-7 support as our own people are at present. This can only be accomplished if we properly train them to do our job the way we do it! It is anticipated that Air Force CV-2, CV-7 units will be placed under OPCON of the Army force being supported, or attached to Army forces, as the situation dictates. We must do all possible to eliminate the anticipated deleterious impact on morale of our Caribou personnel, both officer and enlisted. To this end we hope to get all of the "fixed wing, only" aviators through RI school enroute to their next assignment and place our enlisted men in positions commensurate with skills, training and desires.

14. COMMUNICATIONS: We must establish reliable, manned radio communications between each echelon of command in the Brigade as soon as possible. Our operators must be alert and capable of clear and immediate responses.

15. USE OF AIRCRAFT AND AVIATORS: The regulation requiring two pilots aboard each aircraft for each flight has been relaxed to afford commanders concerned the latitude of sending only one pilot on certain administrative flights. We should take a look at some of our long term crew chiefs and flight engineers with an eye toward giving some "stick" time and training to those who will be around for a while. Think about this in terms of feasibility. They may have to take over, as in a recent case where both pilot and co-pilot were hit. It's up to us to prepare them for this eventuality.

16. PERSONAL CLOTHING AND EQUIPMENT: Our people are still getting burned unnecessarily. An aviator or crew member who is burned because he has sleeves rolled up and is not wearing boots and gloves, if he has them, is foolish and poorly supervised. If these articles are not available to him we are not doing our jobs as we should. I insist that the proper wearing of protective items and clothing be enforced. Our helmets still aren't what they should be, but a bit of ingenuity in tightening and adjustment of chin and nape straps can and will save lives. To make sure we are all on the right track and adequately equipped I would like a one time report on non-availability of flying gloves, glasses and helmets NLT 28 May.

17. MARGINAL WEATHER FLYING: We recently lost two birds and some outstanding people due to the hazard of trying to remain VFR in marginal IFR conditions. There should be no question as to the course of action to take when VFR conditions deteriorate in flight. We must know that the only course of action to take is to climb into the clouds, IFR, and proceed to an airfield with an instrument approach.

18. "540" SCHOOL: A short course for Battalion and Group Maintenance and Standardization Officers will be conducted within the next few weeks. Purpose of the exercise is to promote better understanding of the bird, both mechanically and operationally. We can't get the same lift from our 540's with the present engine that we do with the conventional "B" model. The Dash 13 engine will resolve this problem, but not until they start arriving at the end of this year. Because of reduced lift, our aircraft commanders and unit leaders must determine what items normally carried in the aircraft are not essential, such as tool boxes, rations, etc. Additionally, several indicators show that our people are not very well standardized in the bird. Start-

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ing and shut-down procedures and unauthorized adjustment of the factory set fuel flow are just a few.

19. AIRCRAFT AVAILABILITY: We must anticipate reaching a constant 80% availability. As a matter of policy, the number of ships to be flown when availability is up must be pre-determined. As you know, it is possible to exceed 80% for a short time, but not constantly. My thoughts are to keep mission commitments at 80% and save the extra birds for later requirements. I would like your views on this matter at our next meeting.

20. INTELLIGENCE: The Brigade S-2 has been working on improving our knowledge of "Hot Areas" throughout the theater. The use of "Flak Maps" should help us all to avoid overflying known or suspected anti-aircraft emplacements. A recent directive from this headquarters outlines the procedures to be followed in reporting significant intelligence information and use of the "Flak Map". Sightings should be qualified as to validity by stating "suspected" or "confirmed".

21. AIRCRAFT RECOVERY: Seven helicopters have been dropped by CH-47s during recovery operations since the first of this year. The 11th Aviation Battalion is working with the 34th General Support Group (AG&S) to determine cause factors and what corrective action is to be taken to perfect our recovery methods. A collateral investigation will be required each time an aircraft is dropped until such time as the cause factors are eliminated.

22. MAINTENANCE AND AVIONICS UNITS: I feel that we should closely examine the relationship and staffing of our attached avionics and maintenance detachments. Some units have already integrated these units with the supported companies and have realized savings in rated avionics and maintenance officers by elimination of overlap in responsibilities. Duplication of administrative and control effort should also be apparent.

23. INCIDENTS: We recently had an accidental discharge of several rockets from an armed UH-1 while it was being serviced. The crew chief was killed and several helicopters damaged. Our people must not become overly familiar or careless with weapons systems. To this end we must constantly put out safety reminders and increase supervision to eliminate over-confidence and prevent avoidable accidents of this sort. It is basic that no switches on a bird should be turned on while anyone is in front of weapons; stray juice has and will continue to cause premature firing. Fencing of armed birds toward barriers will prevent damage to other aircraft in unavoidable cases.

24. WEEKLY ACTIVITIES NOTES: Some of our units are publishing unclassified summaries of battalion activities, actions, and events on a weekly basis. This can't help but have a positive affect upon improvement of morale and unit interest. I would like to see all battalions develop such a program. Items published should be of such a nature as to be worthy of our troopers sending copies of the publication home.

25. NIGHT TRAINING: I anticipate requirements for increased aviation support of night operations. You must work on familiarization and training of all our people in tactics and techniques associated with night work. To this end the 1st Air Cav Division has graciously provided us with a well

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qualified pathfinder instruction team to orient our people in development of good night operating capabilities. Classes, discussions, and actual practice as time permits, will help us to quickly achieve this goal. The schedule of the instruction team will be published separately.

26. TACTICS AND TECHNIQUES: The initial manuscript of standard airmobile tactics and techniques has been distributed, on a rather broad basis, for comment and general acceptance. Hopefully, this document, with incorporated ideas from the field, will be published and in distribution by 1 June.

27. COMMAND EMPHASIS: The following items require our constant attention and supervision:

a. Development and maintenance of a strong command information program. We must keep all of our people informed as to our objectives, what we are doing and why we are doing it, and progress being made toward established goals.

b. We must develop the capability for in-country training of our replacements during peak rotational periods. We have already discussed aviator training. These comments apply to all of our people.

c. Operationally we must habitually include the ARVN forces in our plans as participants and keep them informed as allied forces. It is relatively simple to ignore the fact that we have common goals and common means of achieving same.

27. OPERATIONAL CAPABILITIES AND REPORTS: We have had several recent occurrences of reports being submitted from our units to the headquarters having their OPCON citing certain shortages and inability to adequately perform assigned missions. In no case had the chain of command been utilized to rectify these shortcomings prior to the report being rendered. I insist that every effort be made to resolve operating shortages or inability through command and support channels before "Can't Do" reports are rendered through OPCON channels.

28. SERIOUS INCIDENT REPORTS: We had a slight malfunction of our reporting system as concerns a recent serious incident report requirement. USARV Regulation 335-6 is the guide for serious incident reports. Included in this regulation is the requirement to report any death (non-combat) that occurs from other than natural causes, and aircraft accidents. Additionally, any loss or damage of major items of equipment, such as aircraft, falls in the serious incident category. Reports should be made initially to the nearest Provost Marshal with follow-up or final reports rendered as information is developed. In addition to direct notification of appropriate agencies of serious incidents and "Crown" reports, the chain of command must be notified in an expeditious manner.

29. AVIATION BRIGADE LOI: Our LOI has been distributed. You will note that USARV LOI, as pertains to each group, is thereby rescinded.

30. COMMENDATION: All of you collectively have received heartiest thanks,

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congratulations, and commendation from General Howell M. Estes, USAF, CG, MAC, thru channels, for the saving of countless lives of "downed" aircraft crews of all services. This is a very important and gratifying sidelight in your total magnificent performance record. The letter, with indorsements will be reproduced and distributed to unit level. I am very proud of your overall efforts - keep up the good work!



G. P. SENEFF JR.
Brigadier General, USA
Commanding

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DEPARTMENT OF THE ARMY
HEADQUARTERS 1ST AVIATION BRIGADE
APO San Francisco 96307

AVBD

17 June 1966

COMMANDER'S NOTES
NUMBER 4

1. GENERAL: The following matters of information, guidance, command interest and policy are published for appropriate action of those concerned. Most of the items were covered at the Commander's Conference of 11 June 1966.

2. NOTES FROM MAJ GEN TOLSON: General Tolson is here in Vietnam to see if there is anything that the Army Aviation School which he commands, should be doing to better prepare its students for service in Vietnam. Rucker is geared and orientated to meet our needs in Vietnam. The school critiques and debriefs all returnees from Vietnam who are assigned to Rucker in an attempt to glean information with which to improve its instruction. The rotary wing student receives 16 weeks at Ft Wolter, getting training in formation flying, navigation, and pinnacle techniques. At Rucker he gets 16 weeks of tactical training, tactical instrument helicopter training, transition to the UH-1, continuous training at max gross loads, and then finally the gunnery course and field operations. The "Q" Course for rated aviators and the OV-1 qualification course are lagging a little but are rapidly becoming fully Vietnam oriented. Those aviators returning to Ft Rucker on reassignment should strive to share their experience here with the instructors and students at the Aviation School.

3. NEW IDEAS: Lt Col Ulcry of ACTIV is requesting units to determine what equipment now on hand needs improvement and what equipment not now available is desired, and to submit ideas for such improved equipment to ACTIV. This will permit ACTIV to be more responsive to the needs of the Tactical Units. Ideas should be originated at the lowest levels and submitted through channels to permit weeding out of ideas of marginal value, duplication and to encourage comment. Brigade will consolidate these ideas for submission to ACTIV. When proposed equipment has been engineer tested it will be provided to the unit originating the idea for operational testing. The current 20 mm gun mounted on the UH-1 is an example of good workable ideas to meet an operational requirement. The armed Chinook is a piece of equipment which is workable but now must be tested for proper employment. I encourage all of you to submit your ideas so we can get improved equipment to meet our needs.

4. KEEPING OUR BEST PEOPLE IN THE ARMY: In a recent letter, the Chief of Staff praised the magnificent performance of the Army in recent years and particularly here in Vietnam. He was quite concerned, however, about our abilities to keep our younger men in the Service. This applies

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1/100 H/C
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to officer and enlisted alike. By July of this year, 40% of our officers and 70% of our EN will have less than 2 years service. We must remember that most of us went through similar stages of Army fluctuation. When we were down in that bracket it was our superiors that did something to convince us to stay in. Today, there is a lot of talk by our young guys of getting out on their return to the states. The shoe's on our foot now. We are failing in our duties if we don't talk the good men into staying. Some will get out no matter what we do, but we should really work on those that have something to offer the Army. I ask each of you to make an informal survey of your people to get an indicator of why people are getting out, their ages, experience, future desires, their gripes, and reasons for thinking of getting out. I want an informal written report through Groups by 5 July. Another plea was made by General Polk, ACSFOR, to try to retain critical skill NCO's and get them to reenlist before they leave this Theater. They may get shoved around when they return to the states and decide not to reenlist. We should try to get them to reenlist here and show them the benefits they gain by doing so. The Bde Sgt Maj will put out some data in his chain to get the NCO's working on this problem. We can't replace those people, we must do everything we can to keep them.

5. PROMOTIONS TO MAJOR: I have conducted a quick survey of the Brigade on the last promotion list to major. This survey indicates that the ratio of aviators promoted to major compares favorably to the overall list. I have asked DA to run a check on this also with the more detailed figures available to them. Meanwhile, I want you to squelch any rumors that aviators were not dealt with properly until we get some definite word from DA.

6. HELICOPTER STATISTICS: We are getting some very good data on our helicopter combat missions which you commanders should use to impress your people. I want special emphasis placed on the hit ratios we are faced with. We are getting away fairly lightly and the hit, shot down and lost rates in FY 66 show that the picture is getting better. One area which we must really get the word out on is the KIA for a given thousand flying hours. When you multiply the number of crewmen aboard each chopper and consider that each crewman doesn't fly every mission we see that the crewman's odds are very good.

7. CH-47, VICTOR ASSETS: It looks like we are going to have to continue with our redistribution of CH-47 aviators. We still have a "hump" to overcome in our companies with the same personnel DMRs. To spread our experience and stagger the DMRs dates we will probably have to mix our aviators into the new CH-47 companies when they come over. I want you to follow this closely.

8. HAZARDOUS OPERATIONS REPORTS: You have all seen or heard of the USAF reports on near misses with Army aircraft and cluttered Army airfields. Brigade has put out some directives on this with specific examples.

some of our strips are hairy, particularly in the forward areas. We need some positive control and definite means of notifying all aircraft of control frequencies. The 125th ATC and Paris control should know what frequencies we are using and put them out. This requires prior planning on the part of aviation commanders and procedures established for hasty as well as pre-planned operations. Some units have solved the communication problem by the use of panels on the ground to indicate the control frequencies. There is no reason we cannot broadcast the frequencies used at our various forward strips.

Along with this we need to crank our requirements for control towers and GCA's into our plans early. Our problem is a shortage of equipment resulting in a requirement to move whatever is available to where it is most needed. This takes good prior planning to give the 125th ATC enough reaction time.

9. PROPOSED OPERATIONS REPORT (PROP REP): In an effort to give the Brigade and Group headquarters an early indication of when battalions go on an operation, I have had my staff prepare the PROP REP which will be issued to all units with instructions on its use. Our headquarters needs to know as soon as possible when battalions are tasked to support operations so that we can get info briefings and have an idea as early as possible of what commitments the brigade units have.

10. SHOULDER PATCHES AND CRESTS: DA has indicated that we can expect trouble getting our proposed shoulder patch approved but I intend to fight to the end to get the patch approved. They have also informed me of a new regulation on crests. This regulation permits a distinctive shoulder crest for non-color bearing units of the brigade and one for each separate aviation battalion. I propose to let battalions and companies arrive at their own solutions on the current pocket patches.

11. VINH LONG ATTACK: The after action report of the Vinh Long attack is a good example of an outfit that was well prepared to take care of itself. The unit had a fire team in the air that located the VC mortars as soon as they started firing and took appropriate action. In the Delta area, the ARVN have agreed to keep an alert company on standby to join up with the choppers. In this attack they did get out rapidly and helped keep the VC heads down. It should be noted though that the VC are pretty smart too and know how we react. They had a 50 cal set up on the end of the runway to get our aircraft taking off. We need to set up alert crews with infantry to react to attacks around our airfields and think about alternate take off routes to foil any VC attempts to knock us down. We will be required by MACV to prepare and submit detailed after action reports on mortar attacks of our installations very shortly so get your plans in effect.

12. PERSONAL SECURITY: I want to call your attention to a letter i Gen Engler dated 17 May 66. It calls for a commanders briefing of all

subordinates on the dangers to subversion resulting from personal weaknesses of individuals from drugs, sex and other embarrassing traits suitable for VC blackmail. Put this out at Troop and Commanders Briefings.

13. AVIATION UNIT TERMINOLOGY: There is confusion as to what is what in aviation units. Units in the Cav Div differ in designation from these in brigade. Air Mobile Companies mean the lifted infantry to the Cav and the helicopter company to the brigade. I sent a message to DA suggesting titles to overcome this confusion. The Director of Aviation replied that this was very timely. You have a handout on our suggestions. I want all of us to start using these new designations in our correspondence now rather than waiting, so let's start.

14. APRIL OFFENDERS REPORT: A USARV letter is put out monthly down to Group level which reflects the Class I, II and traffic offenders for each major command during a given period. I'm surprised and disappointed to find brigade units stand so high in these offenses. We must start beating on our people and find ways to lower our rates. Our people are generally high calibre and we have plenty of high ranking supervision but our relative standings show something is wrong. I realize that some of this may stem from other units causing trouble which involves our people too, but these are things commanders must watch for and solve locally. There may be times when we must keep our troops out of certain areas to avoid being egged into bad situations. Get on this and let's get our rates down.

15. ACCIDENT REPORTS: I have noted a trend lately in disagreement between the accident boards, the reviewing officers and the reviewing headquarters up the line. This indicates the boards are not set up well to reflect established policies on accident investigation. The board must state what actually happened and not worry about covering up or stepping on toes. I ask that when battalion commanders disagree with board findings, they should instruct the members where the shortcomings are so the board can do better next time. Along with accident reports, there is some confusion on the requirement to forward Form 285's through the G-1 channels on the same accidents. We are resolving this and will let you know what is required. Also, I realize that using the short accident report form for reporting hits has increased your report requirements and to some extent reduced the intended effectiveness of the short report form. But, I want to emphasize the importance of these hit reports. The improvements in the UH-1 in armor and protection of critical components have come about mainly due to analysis of hit reports. We will look into better means of getting hit reports in.

16. CREW CHIEF-PILOT TRAINING: We have a critical period coming this summer with a shortage of aviators. I'd like each of you to start a program with your more experienced crew chiefs to get them familiar with handling the chopper so we can get some sort of a reserve capability in this area in case of need.

17. NIGHT TRAINING: There is a continued emphasis from General Westmoreland on down for the use of rapid reaction forces which are ready to go day and night. Demands for such reaction forces are

increasing. Keep working on this and get your plans down pat. Get familiar with pathfinder operations as outlined in the Operations Manual and the techniques for night operations. Reliable, rapid reaction with trained personnel is a must.

18. GENERAL WESTMORELAND'S CONFERENCE:

a. Commanders must be available to their troops. Congressional Inquiries are building up, we need to decrease this by being sure the troops know what's going on and why and by helping them in their personal problems.

b. Make a drive to lower spending in this country and reduce the impact on the local economy. Stress savings bonds and bank accounts in the states.

c. Get people out of urban areas like Saigon and Nha Trang. Build up troop and headquarters areas out of heavily populated areas.

d. Saigon is not an R&R area. Commanders must hold down visits and conferences in that area. The Brigade will try to hold meetings on safety, standardization and the like out of the Saigon area.

e. Check on local blackmarket activities and be sure your people understand the need for their help in reducing this problem. Get the troop information program going.

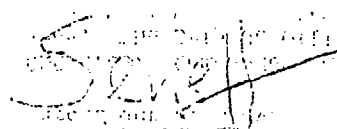
19. REVISED TOE FOR THE ASSAULT HELICOPTER CO: We are revising the current TOE for helicopter companies with an effort to get enough people to man the necessary equipment without any fat, and to get lightweight equipment in the units to facilitate field operations. This Co will have 32 birds and 68 aviators at 100% strength. Get your ideas on this to your representatives at Brigade who are working on the TO/E.

20. LESSONS LEARNED: Many things are going on that all units should know about. What seems an insignificant or routine approach to a problem may be a big help to another unit. Be sure your Quarterly Operations Report contains details of lessons learned so we can consolidate and distribute them across the board.

21. AVIATION BRIGADE OPERATIONS MANUAL: We have received many good comments from all of you on our draft and many of these have been incorporated into our final publication. We received some especially good help from the 1st Inf Div. We now need to get the manuals distributed properly to the bosses and people who count (Brigade Commanders, S-3's etc). Selling this isn't going to be easy. You guys

must help. The Brigade is setting up a briefing team with representatives from the Groups to tell the infantry and aviation units what's in the manual. Our intent is not to cram something down their throats but to help in the overall combined missions. We hope to get help from the Field Force Headquarters to get infantry and aviation units together for briefing and general discussion. Just because something is not in the Brigade Manual doesn't mean we should abandon the effort. The manual will be continually updated and should be used as a basis on which to standardize. Some of the techniques in the manual are based on the new augmented companies so we can't implement everything right now, but we should work toward these techniques. We are following up with an aviator's pocket handbook on pertinent sections of the manual. This will be out by the next Commanders Conference.

22. ACCURACY OF REPORTING: (Reference Msg AVD-MD 5229, 1 Jun 1032Z, subject Evaluation of Logistics - Summary) Aircraft availability is currently being reported monthly on the DA Form 1352, weekly with the PTC-21 and OPREP-5 reports and daily on the daily mission ready report. These reports are consistently in disagreement with one another, by amounts not fully attributable to the reporting criteria. The definitions of operationally ready and mission ready aircraft given by the directives for each report are in very close agreement. As the data presented by these reports are used as a major measure of the effectiveness of our units, it behooves all of us to present the best data available and to do so on a consistent basis. My staff is preparing a letter on this matter, to clarify the reporting criteria and effect a greater correlation of the information reported. I want commanders to keep abreast of these reports and insure that the basic data is complete, factual and consistent.



G. P. SENEFF JR.
Brigadier General, USA
Commanding

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1st Ind

SUBJECT: Operational Report-Lessons Learned for 4th Quarters FY 1966
(RCS CSFOR-65)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96307, 13 Sep 66

THRU: Commander-in-Chief, United States Army, Pacific, ATTN: GPOF-MH
APO 96558

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

1. The Operational Report-Lessons Learned submitted by the 1st Aviation Brigade is forwarded herewith. The value of the report is increased by the information found in the inclosures.

2. Reference Paragraph C6, Section I: The proposed TOE for a type assault helicopter company to supersede TOE 1-77 (E) is presently being staffed at this headquarters.

3. Reference Paragraph C8, Section I: Concur with the Aviation Brigade proposal to develop a TOE for type Headquarters and Headquarters Company Aviation Brigade.

4. Reference Paragraph B, Part 1, Section II:

a. Item 1: One Form 47 may be used for several like units drawing the same item if each unit draws the same quantity and if a requisition from each unit is attached to the Form when it is submitted. The headquarters submitting a Consolidated Form 47 must include the MOS of individuals in the units that will maintain and operate the equipment. Clarification of this point will be included in a directive currently being prepared at this headquarters.

b. Item 2: Concur that many items which are issued in excess of authorized allowances may not be appropriate for inclusion in TOE but should be included in Table of Allowances instead. A list of items issued with Form 47 as authority, is currently under study with a view of preparing a recommended Table of Allowance for Vietnam.

c. Item 3: A study of MASTOC equipment is presently being conducted in this headquarters. Inclusion of slings and nets is under consideration.

5. Reference Section II, Part II, Recommendation A: A directive outlining procedures for preparation and processing of USARV Form 47 is being prepared by this headquarters. This directive will modify the present system and method of use and approval of the Form.

AWHCC-DH

13 Sep 66

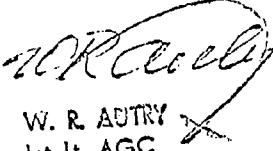
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(RCS CSFOR-65)

6. Reference Section II, Part II, Recommendation B: Concur in recommendation that supported units be authorized slings and nets as WAETOC items, and deploying units bring this equipment with them into the country. Necessary action is in progress to secure required air items of equipment to support external load requirements for tactical operations.

7. Reference Section II, Part II, Recommendation C: The Avionics Division, USARV Aviation Section will determine the feasibility of standardizing the AN/ARC-122 antenna mount as described, and if required will publish an appropriate NMO.

8. Reference Section II, Part II, Recommendation D: The NCMEX flight suit is presently being tested in RVN, the final report will be available approximately 1 October 1966. Based on the conclusions and recommendations of the tests, USARV flight suit requirements may be submitted.

FOR THE COMMANDER:


W. R. AUBRY
1st Lt, AGC
Asst Adjutant General

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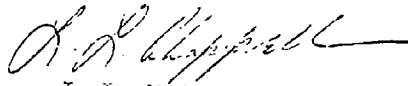
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SUBJECT: Operational Report-Lessons Learned for 4th Quarters FY 1966
(RCS CSFOR-65)

HQ, US ARMY, PACIFIC, APO San Francisco 96558

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

The basic report and 1st Indorsement have been reviewed. This hq
concurs with the actions taken by Hq U. S. Army, Vietnam, in response
to the recommendations made by the Commanding General, 1st Aviation
Brigade.

FOR THE COMMANDER IN CHIEF:



E. L. CHAPPELL
Maj, USA
Asst AG

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DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified.)

1. ORIGINATING ACTIVITY (Corporate author)		2a. REPORT SECURITY CLASSIFICATION	
HQ, OACSFOR, DA, Washington, D.C. 20310		FOR OFFICIAL USE ONLY	
		2b. GROUP	
3. REPORT TITLE			
Operational Report - Lessons Learned, HQ, 1st Aviation Brigade			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates)			
Experiences of unit engaged in counterinsurgency operations, 22 May to 31 July 1966.			
5. AUTHOR(S) (First name, middle initial, last name)			
CG, 1st Aviation Brigade			
6. REPORT DATE		7a. TOTAL NO. OF PAGES	7b. NO. OF REFS
Undated		62	
8a. CONTRACT OR GRANT NO.		9a. ORIGINATOR'S REPORT NUMBER(S)	
b. PROJECT NO.		660147	
c.		9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
d.			
10. DISTRIBUTION STATEMENT			
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY	
N/A		OACSFOR, DA, Washington, D.C. 20310	
13. ABSTRACT			

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DD FORM 1 NOV 55 1473

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