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DEPARTMENT OF THE ARMY
HEADQUARTERS, 1ST AVIATION BRIGADE
APO San Francisco 96307
"NGUY-HIEM"

AVBA-C

14 February 1967

SUBJECT: Operational Report-Lessons Learned for 4th Quarter Year 1966 (RCS GSFOR-65) (U)

THRU: Commanding General
United States Army, Vietnam
ATTN: AVHGC-DH
APO 96307

Commanding General
United States Army, Pacific
ATTN: GPOP-MH
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. (FOUO) This headquarters continues the processing and approval of awards up to the Bronze Star Medal for all units of the brigade. The back log of 20,621 awards being processed as of 29 October 1966 has been eliminated. Approximately 1500 awards are processed weekly, thereby insuring that awards are presented on a timely basis.

2. (FOUO) Infusion within each aviation unit continues. Due to the application of sound personnel management techniques the ultimate goal of 1/12 personnel turn-over per month will soon be realized.

3. (C) Personnel Strength Status

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a. The current Personnel Strength Status of the 1st Aviation Brigade is as follows: (C)

	AUTH	ASGD	PDY
OFF	1,078	1,427	1,316
WO	1,217	986	905
EM	9,409	11,144	10,408
TOTAL	11,704	13,557	12,629

b. Currently units of the 1st Aviation Brigade are stationed in approximately 40 geographical locations encompassing all of South Vietnam. Rarely are the battalion headquarters located in close proximity to their companies. Most of our battalions have company units stationed in excess of 30 miles from the battalion headquarters. Several of the Battalions have companies in excess of 90 miles and two battalions have companies in excess of 150 miles from the headquarters. Many of the company size units are further fragmented into one or more locations in order to provide close and responsive tactical support to the surported units. The requirement to provide administrative support and command and control within the units of the 1st Aviation Brigade requires more personnel than our units are currently authorized. We have been able to maintain some enlisted personnel in excess of the authorization. (FOUO)

c. The excess of enlisted personnel over and above authorization results in promotion and morale problems, as we must have existing grade vacancies in order to promote enlisted men to the next higher grade. Qualified enlisted men are transferred to promotable vacancies as the vacancies occur. Promotion vacancies brigade wide are being fully utilized to promote qualified individuals in units where promotion vacancies are lacking. Personnel so promoted are then transferred to the unit having the vacancy. (FOUO)

d. The 1st Aviation Brigade has a shortage of enlisted men qualified in MOS 67W (Helicopter Technical Inspectors). USARV and DA have plans to eliminate this shortage by March 1967. Currently we are screening the records of all enlisted men to insure that personnel with MOS 67W are properly utilized. (FOUO)

B. OPERATIONS PLANS AND TRAINING

1. (FOUO) Total aviation units decreased during the quarter due to the 1 January 1967 transfer of all CV-2 aircraft and support equipment to the US Air Force. The following units arrived during the quarter:

a. 335th Aviation Company (AML) (Had been attached to 173rd Avn Bde).

b. 269th Aviation Battalion HHC

c. 213th Aviation Company (Mdm Helicopter)

d. 329th TC Detachment CHFM

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2. (FOUO) The following aviation units were inactivated, 1 January 67, and the assets transferred to the USAF:

a. 57th Aviation Company (FW)(CV-2)

b. 61st Aviation Company (FW)(CV-2)

c. 92nd Aviation Company (FW)(CV-2)

d. 134th Aviation Company (FW)(CV-2)

e. 135th Aviation Company (FW)(CV-2)

f. 51st TC Detachment

g. 138th TC Detachment

h. 258th TC Detachment

i. 260th TC Detachment

j. 326th TC Detachment

3. (FOUO) Reorganization of Brigade Units. Action continued throughout the period to organize the Brigade units under the New Army Authorization Document System. As of 31 January a total of 19 MTOE's were being processed. Status of significant MTOEs is as follows:

a. 1-77G Aviation Company (Airmobile) - 23 companies reorganized under PAC 1/66 and a MTOE to include aircraft and crew augmentation submitted to USARV.

b. 1-77G Aviation Company (120th) - Staffing at Brigade.

c. 1-77G Aviation Company (Escort Helicopter) - Submitted to USARV.

d. 1-87G Aviation Support Detachment - AOD for class "A" and class "B" airfields submitted to USARV.

e. 1-128T Aerial Surveillance Company - Staffing at Brigade.

f. 1-207E Air Traffic Control Company - Submitted to USARV.

g. 1-252F HHC Aviation Group - Final preparation and staffing at Brigade.

h. 1-256F HHC Aviation Battalion (222nd and 223rd) - Being rewritton at Brigade as a result of review and comments by groups and battalions.

i. 1-256F HHC Aviation Battalion (Capital) - Submitted to USARV.

j. 1-256F HHC Aviation Battalion (214th) - Submitted to USARV. (109 Personnel strength)

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k. 1-256F HHC Aviation Battalion (Flight Facility) - Submitted to USARV.

l. 1-256F HHC Aviation Battalion (Airfield Control) - Being submitted to USARV as a requirement.

m. 1-257F Aviation Company (FW) Command Airplane - Submitted to USARV.

n. 1-257F Aviation Company (FW) Light (O-1) - Final preparation at Brigade.

o. 1-258F Aviation Company (Medium Helicopter) - Returned from USARV for revaluation of space requirements.

p. 11-303E Signal Radio operations Co (DECCA) - Submitted to USARV.

q. 55-500R Transportation Detachment (KD) - Initial preparation at Brigade.

4. (C) Relocation of units out of Tan Son Nhut Airbase.

a. The 125th ATC Company (-) closed into Bien Hoa during January 1967. This was an interim move with the final destination being Long Binh.

b. During the reporting period, continued progress was made in the planning for the Brigades' move to Long Binh and Long Thanh. A recapitulation of Aviation Brigade requirements at Long Binh was included in a letter to USAECV (Prov) dated 7 Jan 67. The formal request for the required spaces at Long Thanh was submitted to the Vietnamese JGS by MACV on 25 Dec 66. Upon the completion of the required facilities at these locations, an immediate move will be made by all elements of the 1st Aviation Brigade now located at Tan Son Nhut Airbase.

5. (FOUO) VNAF Pilot Training

The VNAF UH-1 Pilot Training Program that was initiated 2 Aug 66, as directed by COMUSMACV, has continued to expand. To date 24 VNAF Pilots have completed the three month program. Nine VNAF aviators completed the first course in November 1966, and fifteen more are scheduled to graduate in Feburary 1967. The present plan is to conduct four courses of three months duration each per year, with a student input of fifteen VNAF per class. This will provide the Vietnamese Air Force with sixty well qualified UH-1 Pilots per year. The long range plan is for the VNAF to eventually conduct their own training, utilizing selected pilots, who have been trained by US Units, as their instructor pilots. The VNAF Pilot training is progressing nicely, and most of the problem areas during the early stages have been resolved.

6. (FOUO) Martin Baker Ejection Seat Trainer Device

In December, two (2) Martin Baker Ejection Seat Trainer Devices arrived in country. Accompanying the devices was a new equipment training

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team (NETT), to put the trainers in operation and instruct selected personnel, so they can supervise utilization of the devices after the NETT team departs. The trainer is a replica of the actual ejection seat in the OV-1 Mohawk, and is designed to familiarize crewmembers with ejection techniques and procedures. The first device was put in operation at Vung Tau, where the 73rd Aviation Company (OV-1) is located, and all the training was accomplished on schedule. However, when the NETT team went to Hue Phu Bai to set up the 2nd device for the 131st Avn Co (OV-1), they were confronted with extremely bad weather. After waiting for five days for the weather to improve, they decided to go on to Korea to set up another device. The team arrived back here in country near the end of January, and will have the Hue Phu Bai trainer set up and the personnel trained by 7 Feb 67. Aside from the weather delay, the NETT team has had no major problems. The ejection seat trainers are confidence builders for crewmembers, and are very valuable training devices.

7. (FOUO) Flight Status Orders

During this quarter the Flight Status Orders Section processed 1700 individual flight status actions, and the system has continued to improve. With a few notable exceptions, requests for flight status orders were much more expeditiously processed than in the previous quarter, and most units have improved their procedures for processing requests. The majority of the requests that have to be returned are the result of personnel not being familiar with or not complying with applicable regulations. All units have been advised of the procedures to be followed.

8. (FOUO) Research and Development

The brigade has continued to work with ACTIV in the evaluation of aircraft, armament and equipment. During this quarter the 1st Aviation Brigade took part in tests of the following equipment and systems.

Firefly
Low Light Level Television
Throat Microphones
Fire Resistant Flight Coveralls
Smoke Generators
Aerial Mine Delivery Systems
Troop Ladders
Starlite Scopes

Valuable data and experience has been gained by brigade units participating in the projects listed above. Additional evaluations will continue.

9. (C) Aviation Command Study and Proposed Increase in Aviation Force Structure.

The study to determine the command structure required for the command and control of programmed aviation units was completed. More than seventy separate companies, based on tactical commitment and geographic distribution, require sixteen battalion headquarters, four group headquarters, two brigades and an aviation command in order to assure the

most effective and efficient utilization of critical assets. Due to the planning emphasis on the assault and assault support type units, the requirements for the command and control elements were not refined prior to the end of the previous quarter.

10. (FOUO) USARV Regulation 525-5 (C)

This headquarters has implemented procedures for all requirements of this regulation. Fortunately, the regulation simplified and clarified many procedures previously contained in USARV Emergency Operations Procedure SOP. Due to its timeliness, this regulation was well received by all units of this command.

11. (FOUO) Standardization

a. During the period, visits were made to operational units down to company level to assist in establishing a flight orientation, training and standardization program throughout the brigade. Emphasis was on adequate training programs for newly arrived aviators, aircraft commanders, instructor pilot qualification and standardization, and helicopter autorotation training.

b. There has been some concern over the problem of aircraft commander and instructor pilot shortages in the UH-1 helicopter companies. Aviator personnel replacements are either recent graduates of USAAVNS or a UH-1 transition course. This is a recurring problem, especially in the instructor pilot area. Programs have been established to have the instructor pilots working continuously with unit aviators while the aircraft commanders conducted crew training. This establishes a program whereby the stronger aircraft commanders, with instructional ability, are readily trained and appointed instructor pilots. The aircraft commanders assist by instructing the replacement aviator in aircraft operations, flight techniques and procedures of the Vietnam theater.

12. (FOUO) Firefly

On 23 Jan 67 a conference was conducted at this headquarters to discuss operational procedures and methods of employment of Firefly systems. Firefly is a term that pertains to specific type of night helicopter operation. In attendance at the conference were representatives of brigade units involved in Firefly operations. Presentations were made by personnel from the two units with the most Firefly experience, and differences in their methods of operation were discussed. A resume of items discussed at the conference was reproduced and distributed to all brigade units. As more information becomes available and units gain more experience, another conference will be held to formulate a standing operating procedure for Firefly operations.

13. (C) XM-47 Mine Dispensing System

a. The training program in the use of the XM-47 Mine Dispensing System and handling of the XM-27 "Gravel" mine enjoyed success during the period with personnel from both the 12th Combat Aviation Group and the 17th Combat Aviation Group receiving training. The training program

enabled units of the 12th Combat Aviation Group to seed four targets on 26 December 1966.

b. The basis of issue for the XM-47 Mine Dispensing System was established as 2 each per Assault Helicopter Comapny. All assault helicopter companies will be issued the system on order of established priority as the systems become available.

c. Evaluation of the system and training with the system will continue as more systems are issued to the assault helicopter companies in the field.

14. (FOUO) ROK UH-1 Familiarization Training

In November a program was started to provide on-the-job training of Republic of Korea Army pilots and mechanics in the UH-1 helicopter. Eleven ROK Army aviators and nine enlisted men have been training with the 14th Combat Aviation Battalion since that time. The ROK Army pilots and mechanics are fixed wing qualified only, so they have been flying as co-pilots, and no attempt has been made to make them fully qualified UH-1 Pilots. The program has been beneficial to both countries involved. The ROK Army now has a nucleus of personnel who are familiar with the UH-1 helicopter, and at the same time the US units involved have been able to give their personnel much needed rest by integrating the ROK personnel into their flying and maintenance programs. This familiarization program has been well received.

C. INTELLIGENCE

1. (FOUO) During the period 1 November 1966 to 31 January 1967, the S-2 Section continued its normal functions concerning intelligence and security. Also, during this period this section was given the staff responsibility for the Evasion and Escape Program within the brigade.

2. (FOUO) With the assignment of one officer to assume the duties of Evasion and Escape officer on a full time basis, a brigade wide program was established in close coordination with USARV, MACV and 7th AF. Evasion and Escape officers have been appointed down to company level, and it is expected that non-rated Special Forces qualified officers will be assigned to group and battalion headquarters to assume duties as full time E & E officers. There is a current shortage of briefing and reference material. Action to obtain such material has been taken. A briefing program has been established utilizing E & E information obtained primarily from the USAF. Brigade aviator personnel have attended the PACAF Jungle Survival School in the Phillipines, and monthly quotas for additional attendance have been obtained. Survival and Life Support Equipment, such as survival vests, evasion plastic charts, and blood chits are being issued to aircrew personnel as they become available.

3. (FOUO) Reconnaissance and Surveillance; the 1st Aviation Brigade OV-1 Representative assigned to this section attended the OV-1 Planning Conference held at Fort Lewis, Washington on 14-17 December 1966, and also

briefed the ARCSA II Study Group in Washington, D. C. on 21-22 December 1966. An OV-1 Operations Conference, with representatives from all OV-1 units and interested headquarters, was held at this headquarters 13-14 January 1967, (Minutes of the Meeting Incl 3). A new concept of employment of OV-1 assets in RVN was prepared, staffed and submitted to USARV.

4. (FOUO) Intelligence and Security: Routine intelligence and security functions continued, with primary emphasis on security. The 1st Aviation Brigade Regulation 380-5 and a headquarters security SOP has been drafted and is currently being reviewed. Staff visits to the S-2 Sections of the Combat Aviation Groups were made, and visits to other subordinate units are being scheduled.

D. LOGISTICS

Significant Events

1. (FOUO) An Aircraft Armament Officer has joined the S4 Staff. The addition of this officer greatly increases our capability to more closely monitor the armament systems within the Brigade and give assistance to subordinate units.

2. (FOUO) Approximately 600 sets of new body armor were received during the period and distributed to using units. This relieves our shortages somewhat, although there remains a requirement for 1600 sets. Additional quantities of armor are being furnished from US Army Natick Laboratory.

3. (FOUO) Two integral smoke generators utilized by the 12th Combat Aviation Group have proven to be very successful, and eight more are to be furnished by ACTIV for the Brigade in Feb 67. These will be distributed among the 12th Combat Aviation Group, 17th Combat Aviation Group and 13th Combat Aviation Battalion. Quantities of fog oil have been brought in country by 1st Logistical Command, and more is on requisition.

4. (FOUO) Aircraft tool sets and kits continue to be in critically short supply. Follow up messages to out-of-country suppliers have been initiated by 1st Logistical Command, but no responses have been received.

5. (FOUO) Ballistic resistant flight helmets were shipped to the command in Dec, but have been diverted through Okinawa. It is hoped that these helmets will arrive in Feb 67.

6. (FOUO) 158 survival vests for OV-1 aviators arrived in Dec 66. These have been distributed to Brigade units, 1st Cavalry Division, and 1st Infantry Division. The vests were fully equipped, to include the new RT-10 radio, and are a most welcome addition to the surveillance aircraft equipment inventory.

7. (FOUO) Nine indicator windsock units arrived in Jan 67 and have been distributed. Approximately eighty more are due in to fill requirements for all Brigade operated airfields and heliports.

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8. (FOUO) A requirement still exists for seventy five AN/PRC 25 radios. USARV approved an issue of five per AML company. Twenty seven radios were issued in Nov 66, but 1st Logistical Command stocks have not been adequate to meet the remaining requirement.

9. (FOUO) Construction of ARPA lights (Fireflies) continues on the USS Corpus Christi Bay. Eleven have been provided to Brigade units, five more have been completed, but are lost in transit between Cam Ranh Bay and Saigon, and nine remain to be manufactured. Total Brigade requirement is currently twenty five.

10. The processing and storage of radar/tower equipment, originally programmed as a mission of the 125th Air Traffic Company, has been made a responsibility of 1st Logistical Command, per direction of USARV. This was done because the 125th does not have the capability of handling such a large volume of tonnage, plus the fact that only a small percentage of the equipment would become brigade owned. The majority was for other in-country units. The 125th is providing technical assistance, however, and allocation of the equipment is determined by USARV. (FOUO)

11. (FOUO) Construction of facilities for subordinate units was disrupted; particularly for those projects already in progress, by the initiation of the self-help program. This program prohibited engineer troops from performing vertical construction.

12. (FOUO) The initiation of the Brigade Aircraft Crash Rescue and Fire Fighting program will provide beneficial results. This program will help coordinate the efforts of other agencies, which are not in the brigade chain of command, on a mutual support basis. Inspection of fire trucks and related equipment in the field revealed a lack of adequate maintenance. However, this maintenance will improve as a result of the program for the orderly evacuation of repairables to higher echelons. The maintenance posture of equipment assigned to airfields for operational control will also require constant monitoring in the future.

13. (C) The location of the new brigade headquarters at Long Binh has been narrowed to one of two adjacent areas. The buildings planned should be adequate for the brigade headquarters.

14. (FOUO) The layout of the Long Thanh North airfield was approved 30 Dec 66 by all future occupants. Minimum operational facilities should be completed by July 67, as the project has a high priority. Clearance distances will meet Army and Air Force requirements, and space for future expansion is provided.

15. (FOUO) The consolidated requirements for the Long Binh Helicport were submitted on 1 Jan 67, providing for adequate facilities. One recent development has been the construction of twenty four helipads in an area near the planned heliport. This may modify some of the heliport development plans.

16. (FOUO) The 125th Air Traffic Company, less one platoon, moved to Bien Hoa in Jan 67. Facilities for the company are to be constructed

[redacted]

at Long Binh, since Bien Hoa was an intermediate site in their ultimate relocation to Long Binh.

17. (FOUO) Plans are underway to have the runway and maintenance facilities at Cu Chi constructed by a civilian contractor. The local engineer unit does not have the capability for the scope of construction required.

18. (FOUO) A new daily aircraft status report is now in use, but experience at this time is insufficient to determine its full effectiveness.

19. (C) At the present time all assault helicopter companies except two have twenty one UH-1D aircraft. It is anticipated that within the next ninetydays all assault helicopter companies will be at the authorized level of twenty three.

E. INFORMATION

1. (FOUO) Command Information: Due to the abundance of printed "Troop Topics", "Fact Sheets", "Command Information Fact Sheets" and other media produced on a regular basis by higher headquarters, there was little in the way of printed support to the Command Information Program produced by this headquarters during the period. One Troop Topics Bulletin on "Revolutionary Development" was produced and the Brigade newspaper "HAWK TALK" was authorized and published twice in December and January. Other items of timely Command Information import such as "Reduction of Piastre Expenditure" were personally covered by the brigade commander during regularly scheduled monthly conferences. Also the guide lines for Command Orientation Briefings for in-coming personnel were provided in a Brigade Regulation and stressed by the commander at his December conference.

2. (FOUO) Public Information: Publication of a Brigade Regulation, command emphasis, a "pep" talk by the MACV PI Officer at the December commanders conference and staff visits to all major subordinate unit IO's during the reporting period produced a tremdous increase in Public Information efforts of the Brigade. Over 1500 Home Town News Releases were dispatched by brigade units during the reporting period, and an average of over eighty general press releases per month nearly triple the preceding three months total. During the period, a distinctive News Release heading was instituted, which has drawn favorable comment from many of the Vietnam Press Corps members, who are always on the lookout for Army Aviation stories. Due to poor telephonic communications and wide dispersion of aviation units in country, institution of "Brigade IO Notes" as a means of getting the word out on practices, plans, and procedures to all subordinate IO's has proven extremely valuable.

F. SAFETY

1. (FOUO) During the period 1 November 1966 to 31 January 1967, this section was engaged for the most part in routine duties involving Aviation Safety and Accident Prevention. Staff visits were made to the 17th Combat Aviation Group, and 52nd and 145th Aviation Battalions in the month of November. Also in November, a USABAAR team arrived in Vietnam. The purpose of their visit was to provide assistance to units

in the field, and acquaint themselves with existing problems. The team, consisting of an accident investigator and a flight surgeon, spent three weeks traveling throughout Vietnam talking with commanders, individual aviators, and crewchiefs. The team was co-hosted by the USARV Aviation Safety Division and 1st Aviation Brigade throughout their tour. The most salient problems encountered were units complaining of the time necessary to get analyses performed on failed parts sent to ARADMAC, and that of pilot fatigue. One result of their visit was that a system is being devised to expedite the shipment of failed components to ARADMAC. The new system will also reduce the possibility of the parts being lost in shipment.

2. (FOUO) The problem of pilot fatigue has long been and continues to be a factor in accidents. Commanders have attempted to alleviate the problem by requiring the aviator reaching ninetyhours to be checked by the unit flight surgeon prior to being assigned additional missions. An aviator reaching one hundred and forty hours in any thirty day period is automatically grounded for forty eight hours. This problem is under continuous study by commanders and flight surgeons alike, to seek ways to reduce or eliminate this problem.

3. (FOUO) During the past three months the total number of flying hours amassed by Brigade units increased by 6% over the previous reporting period. However, there has been a 32% increase in the number of accidents incurred, for an overall rise in the accident rate. In this quarter, eighty four accidents occurred, as the Brigade flew in excess of 240,000 hours. For the same period only thirteen aircraft were lost due to hostile action. The pilot or human factor accounted for fifty seven of these accidents, or 66% of the total. A further breakdown of these human error accidents shows the following major cause factors:

LOSS OF RPM ON TAKE-OFF	14
TAIL ROTOR STRIKES	12
HARD LANDINGS	7
MAIN ROTOR STRIKES	7

4. (FOUO) Materiel failure has become a major cause factor in this reporting period, with engine failure being the most predominant, followed by tail rotor failures:

ENGINE FAILURE	15
TAIL ROTOR FAILURE	3

G. SIGNAL

(FOUO) During the period 1 November 1966 to 31 January 1967, the Signal Section continued its functions of communications operations and communications-electronics staff assistance. Primary emphasis was focused on improvement of long lines communications; communications security; improvement of maintenance management; improved equipment posture; and internal office management. Significant activities in each of the above areas were as follows:

a. Long Lines Communications

(1) Members of the Brigade Signal Section participated with representatives of the USARV Signal Section in planning future requirements for long-lines telephone and teletype circuits between the levels of command of the Brigade, down to company level. Circuit requirements for common user telephone and teletype, as well as dedicated sole-user circuits were forwarded to USARV for consideration in planning the allocation of circuits in the integrated wide-band communications systems (IWCS).

(2) Assistance was given to the 17th Combat Aviation Group in obtaining a sole-user telephone circuit from the group to the re-located 223rd Aviation Battalion and from that battalion to the 131st Aviation Company, Hue Phu Bai. This is the first time that a direct circuit to the 131st has been available.

(3) Numerous staff assistance visits were made by the Communications Operations Officer to communications centers of subordinate units. During one of these visits it was determined that the 10th Combat Aviation Battalion had acquired the responsibility of operating an area communications center at Dong Ba Thin, due to the arrival in the area of additional units, including an Engineer Brigade Headquarters. The Signal Office was successful in causing the activation of an area center at Dong Ba Thin, thereby relieving the 10th Battalion for its tactical communications mission.

(4) Through the assistance of the Signal Section, a high frequency radio set was installed in the USARV Flight Detachment, which now enables control of the detachment's aircraft during flight. It is now possible to divert aircraft while on a mission, thereby improving aircraft utilization.

b. Communications Security

(1) A study was initiated during the period of this report to determine requirements for radio speech security equipment within Brigade units. Total net requirements were developed and the results forwarded to USARV. Follow-up action, to include procurement and distribution of security devices will continue over the next 18 months.

(2) Increased emphasis was placed on radio frequency control and usage during this period. Interference reporting procedures and follow-up actions were improved. Frequency requesting and assignment procedures were reviewed and responsiveness increased. The overall benefit has been better frequency utilization, and curtailment of unauthorized frequency usage.

(3) The Communications Operations Officer conducted several inspections of crypto facilities of the Brigade units during this period, in order to assist in the establishment of new accounts, and to assure compliance with appropriate regulations concerning crypto security.

(4) The transition was completed in November to centralized

distribution of codes and ciphers by the Brigade Signal Section. A review was conducted and action taken to eliminate unauthorized and insecure code systems in favor of approved operations and numeral codes. The Brigade SOI and SSI was revised and improved, and a new standard SOI Extract for aviators was designed and distributed.

c. Maintenance Management

(1) Staff assistance visits to the thirty one avionics maintenance detachments of the Brigade continued during this period. This office coordinated the revision of supply procedures used within the detachments, to bring them into alignment with the revised AR 711-16, and to greatly simplify administrative records keeping, thereby permitting increased emphasis on actual maintenance and repair activities. The coming quarter will see a continuation of staff assistance in converting to the simplified stockage procedures.

(2) During the previous quarter a project was started to purify and reduce the large ASL of the avionics detachments, and to gather valid data on repair parts stockage required by deploying units. During this past quarter recommended ASL's were developed for various type units, and copies forwarded to the Commanding General, USAECOM for guidance in preparing future units for deployment.

(3) In joint action with the USARV Avionics Office and Headquarters, 34th GS Group, this office formed an Ad Hoc committee to review the avionics maintenance problem within OV-1 units. The purpose of the conference was to determine the resources available for direct or general support maintenance, and to study problem areas arising in OV-1 peculiar maintenance. Actions were started to make more efficient use of limited resources available, and to obtain additional general support resources. This action will continue during the following quarter.

(4) The avionics retrofit program started on 28 October with sites at Phu Loi and An Khe. The purpose of the program is to update and standardize all aircraft avionics configuration within RVN. The program got off to a slow start, due to production of the modification kits. During this quarter, approximately 10% of the total in-country assets were modified. This office continues to coordinate the program, as it pertains to Brigade aircraft.

d. Communication Equipment Actions

(1) The Signal Office assisted the S-3 in the preparation of MTOE actions for most of the Brigade units. The MTOE recommendations included such items as the addition of HF-SSB RTT communications down to company level, portable UHF and HF-SSB radios and communications security equipment, as well as improved maintenance capability.

(2) Follow-up action on obtaining avionics test equipment continued during this quarter. Lateral transfer of equipment between units reporting overages and shortages was arranged. At the request of

this headquarters, additional searches of the 1st Logistical Command Depots were conducted, and approximately 500 items of test equipment were located. A list of remaining shortages was forwarded to the Commanding General, USAECOM for action to expedite shipment to RVN. The Avionics Officer has pushed this project to the point of personally delivering test equipment to remote units.

(3) A project was started during the previous quarter to convert all ground FM radio equipment in Brigade units to the new family of radios. During this quarter the transition was almost completed. Efforts in the forthcoming quarter will be directed toward obtaining new HF radio, teletype and ground navigation equipment.

e. Internal Office Management. In order to more effectively provide staff assistance to subordinate units, and increase communications operations efficiency, the Signal Section was the subject of internal management analysis during this period. The SOI/SSI production function was moved into the staff section proper, for better control and personnel utilization. The functions of the communications Operations Officer were increased to provide over-all frequency control, circuit engineering and processing of requests, and increased technical assistance to Brigade subordinate headquarters staffs. The workloads of the Avionics Officer and NCO were readjusted to provide for more technical assistance visits to subordinate units. The internal office files were revised to provide more control and easier access to historical data for individual project follow-up.

H. SURGEON

1. (FOUO) Continued emphasis has been placed on providing medical coverage during combat assault operations. To this end, a Brigade directive was issued stating that flight surgeons and enlisted medics will accompany such missions whenever needed. In order to satisfy this requirement, a change was submitted to the pertinent USARV Regulation 40-23 authorizing non-crewmember flight status to enlisted medics who must fly.

2. (FOUO) A list was prepared and submitted for distribution down to the individual pilot level, listing fixed medical treatment facilities to which casualties being evacuated by backhaul aircraft may be delivered. The list gives the name of each treatment facility, its location by coordinates, its radio call sign and frequency. The list should ensure that every pilot has the information that he needs to make the most expeditious aeromedical evacuation, if he suddenly finds himself with this mission. Also, continued emphasis is being placed on the requirement that flight surgeons participate in pre-mission briefings, to ensure that pilots are aware of what medical facilities are available in the area concerned.

3. (FOUO) A first aid training program is being conducted by flight surgeons at battalion and company level to train aviators, crew-chiefs, and gunners so that they will be able to effect immediate resuscitative measures to casualties generated during combat assault missions. Several directives and messages were sent out from Brigade to get this program initiated, and have proven quite successful.

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4. (FOUO) The requirement for 9 additional Medical Detachments was forwarded to USARPAC. These will be added during the FY67 buildup.

5. (FOUO) During this period it was noted that medical records and reports were being completed in an unsatisfactory manner. Therefore, it was arranged for a medical records specialist from USARV to tour every Brigade medical unit to provide technical guidance on the proper methods for preparing these medical records and reports. A marked improvement resulted from this tour.

6. (FOUO) Because of the general absence of any coordinated program or agency to provide the Army aviator with adequate personal protective equipment or survival, escape, and evasion equipment, there has been much delay in obtaining needed equipment in adequate amounts. Therefore, a recommendation that a Life Support System Agency be formed at Department of the Army level was forwarded by this office.

7. (FOUO) The Hearing Conservation Program was concentrated during this period on the potential hazard of the XM-21 weapons system. A preliminary study involving one flight surgeon and a few aviators gave only equivocal results as to whether any appreciable hearing loss is produced. A more definitive follow-up study is in progress.

8. (FOUO) A new concept was developed for a Flak Chest Protector. The concept is intended to circumvent problems presently being experienced as a result of the requirement that pilots wear both a chest shield and a flak jacket. The present arrangement is so hot and combersome that pilots refuse to wear the flak jacket. As a result, they are experiencing injuries which possibly could be prevented. The new concept has flak absorbing material fixed into a chest protector, providing the benefits of both materials. No additional protection is worn on the back, which is protected by the armor plated seat. In summary, the proposed Flak Chest Protector is lighter, provides additional protection, and is more comfortable than the present system.

9. (FOUO) The design and type of material was determined for the NOMEX flame retardant flight suit, and an ENSURE requisition for this item is presently being completed. This flight suit should increase significantly the chances for an aviator to survive a post-crash fire, and will greatly increase his comfort and efficiency during flight.

10. (FOUO) A study is being developed to evaluate the new ballistic crash protective flight helmet which is presently arriving in-country. A user questionnire survey is being prepared to evaluate this item for ACTIV. The main purpose will be to determine whether the helmet is actually successful in affording ballistic protection, although all aspects of the helmet's use will be studied.

11. (FOUO) The brigade flight surgeon continued to serve in the role of Aviation Medicine Consultant to the USARV Surgeon, holding regular conferences, and providing technical advice, assistance and liaison.

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Continouos liaison was maintained with the flight surgeons assigned to the 1st Aviation Brigade and to the divisional elements incountry. All flight surgeons entering the country were given an orientation briefing.

12. (FOUO) Other routine duties performed included:

a. Review of Command Health Reports.

b. Review of 1972 Flight Physicals.

c. Granting of 21 Waivers on Class 3 Flight Physicals.

d. Preparation of 6 written articles for both USARV and 1st Aviation Brigade publications.

e. Providing patient care to 1050 patients.

f. Performing 36 flight physicals.

g. Making miscellaneous staff visits.

h. Performing flight duties.

13. (FOUO) The major aeromedical problem continues to be a lack of sufficient assigned flight surgeons to provide the Brigade with an adequate, well rounded aeromedical support program. Flight surgeons at both battalion and company level are so busy with clinical duties that they have to neglect their staff functions, which should in fact be their primary concern. In an attempt to deal with this problem, the following steps have been or are being taken:

a. A command letter is being prepared to requisition increased assignments of flight surgeons to the Brigade.

b. Correspondence has been sent to the Surgeon General's Office, making personnel there cognizant of the situation.

c. The Director of Army Aviation, Brigadier General Williams, has been briefed on the situation.

d. A directive has been prepared for brigade flight surgeons, stating that whenever other medical facilities are reasonably available, flight surgeons will confine themselves to providing medical support to aviation personnel only. A study was conducted to determine the units, to include troop strengths, which receive medical support from Brigade medical facilities. Thus, we are better able to pinpoint work overloads and properly distribute personnel.

e. Wherever the geographic concentration of aviation units allows, aeromedical facilities are being consolidated into Battalion Aeromedical Dispensaries. Cellular subunits are then able to deploy with subordinate companies during missions. This consolidation allows for more efficient use of limited resources and provides more thorough and sophisticated medical support.

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I. MILITARY HISTORY

(FOUO) The 8th Military History Detachment conducted staff visits to every major unit of the Brigade during the reported period. Considerable improvement was noted in historical activities, particularly in the maintenance of daily journals and journal files. Most units have prepared their CY66 records for retirement in accordances with Change 1, USARV Reg 345-200. The remainder will be completed in the near future.

SECTION II

PART I

A. PERSONNEL

1. (FOUO) Item: Over Specialization in Hard Skill MOS.

a. Discussion: Previously, the trend in training for avionics maintenance personnel was toward a generalist (MOS 31Q series) who had very basic radio maintenance background. As avionics equipment became more diversified, the need became apparent for a certain amount of specialization. The new 26 and 35 series of MOSs were developed, whereby a repairman specialized in either communications navigation, flight control systems, or airborne radar. The trend has now moved too far toward specialization. Personnel are being trained on just a few items of equipment, such as doppler radar, or one or two types of communications radios. Furthermore, they are being trained in a mechanical approach to maintenance, without enough theoretical background to allow them to improvise if a particular test set is not available. The problem is complicated by the fact that personnel who have special training on a given item of equipment are not identified, and leading to unit assignments where special training cannot be utilized.

b. Observation: In hard skill MOS training, all trainees should get a firm basic foundation before branching off into the specialty field. The specialty field training should again cover the broader aspects of that field. Finally, a percentage of advanced students should receive extra training on more complex end items, while the greater number of students go directly into the field. Those special advanced students, upon completion of the extra training, should be identified by a fifth digit in their MOS, as being particularly trained for the peculiar item of equipment, in addition to their general training in the specialty field.

2. (FOUO) Item: Labor Saving Techniques

a. Discussion: In spite of tremendous increases in work-load with no increase in personnel, time and labor - saving procedures were instituted by the Information Officer, which have permitted accomplishment of the task with no appreciable lag in processing time.

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b. Observation: Significant among these practices has been the discontinuance of a brigade press run. Stories for local media release are taken daily to USARV IO in the afternoon for their press run the following morning.

B. TRAINING & ORGANIZATION

1. (FOUO) Item: Command and Control Headquarters

a. Discussion: With the planning emphasis on movement of assault and assault support aviation units into RVN during the last fiscal year, the planning for command and control headquarters did not keep pace with the input of assault and assault support units.

b. Observation: When additional assault and assault support units are required, consideration of the proposed geographical area of employment of the new unit and span of control limitation of the parent unit will assist in determining the required number of command and control headquarters.

2. (FOUO) Item: Artillery Advisories.

a. Discussion: One item of real concern to aviators is artillery fire in their path of flight. Some steps have been taken within the III Corps Tactical Zone to provide artillery information to aircraft. The zone has been divided into sub-areas, and an artillery advisory station established for each area. Ostensibly, the aviator may call the appropriate control frequency and receive all firing information within the sub-area. However, in practice not all firing is being reported by these control points. There is still no single agency in a given area which can furnish all artillery firing information. The I, II and IV Corps Zones do not have a standard advisory system established as yet.

b. Observation: An effective system of dissemination of artillery warnings is essential to flight operations. The possibility of flying into artillery fire is sufficiently probable to cause concern on the part of the aviator, thereby adversely affecting his mission performance.

3. (FOUO) Item: Pre-assault Communications Coordination.

a. Discussion: A recent report of an air assault operation disclosed that very poor communications existed between the aircraft and the supported ground unit. The aircraft had not yet been retrofitted with the AN/ARC-54 radio, but still used the AN/ARC-44. The ground unit had all new radios, and operated them in the "new squelch position."

b. Observation: Detailed communications planning is an essential part of over-all planning for air assault operations.

4. (FOUO) Item: Methods of Operation in Different CTZ's.

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a. Discussion: Brigade aviation units have noted many differences in methods of operation while operating in adjacent Corps Tactical Zones. These variances are primarily caused by varying terrain and methods of employment by individual ground commanders.

b. Observation: The 1st Aviation Brigade is presently conducting numerous command and staff visits to study all methods of employment. It is expected that these visits will result in standardizing, as much as possible, the techniques and procedures to be used in all areas of operation. These techniques and procedures will be included in the revised Aviation Brigade Operations Manual, and should enhance the operational effectiveness of all units.

5. (C) Item: Combat Assault at Low Tide in Areas Affected by Tidal Flux.

a. Discussion: The timing of combat assaults to low tide results in several bonus effects. They are:

(1) The initial assault is easier because the helicopters land on firm ground and the troops do not have to exit the helicopter into water of unknown depth.

(2) Surveillance of the operational area is much easier for the ground commander.

(3) Viet Cong are severely restricted in exiting the area (Sampans cannot be used effectively).

(4) Ground troops can better detect booby traps that would be undetectable under water.

b. Observation: It is recommended, when practical, to plan combat assaults during low tide to take advantage of the bonus effects.

C. SIGNAL

1. (FOUO) Item: General Support Maintenance for OV-1 peculiar and Ground Avionics Equipment.

a. Discussion: The findings of the Ad Hoc committee on OV-1 avionics maintenance once again affirmed the fact that there is no valid general support maintenance capability for OV-1 peculiar avionics within RVN. Units have attempted to perform limited general support maintenance themselves, through sheer desperation, in an attempt to remain operational. Although charged with the mission of providing general support, the 34th General Support Group (AM&S) lacks both test equipment and qualified personnel to render the support. As a result, items which the unit cannot repair themselves are evacuated to CONUS, causing excessive delays of up to one year in obtaining repairs. Since the primary items concerned are sensor components, the aircraft is essentially not mission ready during this protracted maintenance period. Only through dedicated management, and shifting of sensors between aircraft, are unit personnel able to keep the ships in

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the air. The same situation exists with ground avionics items, such as non-directional beacons and GCA radar units. The 34th General Support Group is charged with general support of these items also. Unfortunately no capability exists within the Group. As a consequence, when these sets go down for maintenance, they are out of action for extended periods.

b. Observation: It is essential that an effective general support maintenance capability for OV-1 and ground avionics equipment be furnished USARV Units. It is totally unrealistic to expect equipment of this type to be operational, and remain so, without maintenance support. The savings in spaces and equipment costs by non-deployment of general support personnel and equipment are negated by the loss of effectiveness in units crippled by the lack of adequate maintenance support.

2. (FOUO) Item: Unit follow-up of supply requisitions.

a. Discussion: Considerable emphasis has been placed on improving the repair parts supply picture for avionics in RVN. Although there is still a great deal to be accomplished in obtaining an adequate level of repair parts from CONUS sources, unit supply procedures also need improvement. Many times during the past quarter members of the Signal Office attempted to trace down critical parts requisitions or work orders for evacuated repairable avionics components. In virtually every case involving multiple items, there were document numbers which could not be identified. In most of these cases, no follow-up action had been taken by the unit for a considerable length of time.

b. Observation: With the volume of repair parts requisitions submitted by avionics detachments, and the number of repairables evacuated, it is essential that an aggressive follow-up program be maintained. Units should demand that their support elements give them periodic reconciliations of outstanding requisitions and work orders. The responsibility for follow-up rests with the initiator of the request action.

3. (FOUO) Item: Scheduled Maintenance for Avionics Items.

a. Discussion: Scheduled maintenance is outlined in the appropriate technical manual for each avionics item; whether it is a receiver, transmitter, transponder, or other major end item. When an aircraft is down for the periodic maintenance inspections, all avionics equipment should be pulled out of the aircraft, checked for possible defects or misalignment, and thoroughly cleaned. This checking and cleaning process should be extended to include antennas, cabling and couplers, even though these items are not taken from the aircraft.

b. Observation: Units that are performing this type of maintenance, report that their overall maintenance problems and workload have decreased considerably. It is recommended that all units establish this policy. Just because a radio continues to operate is no reason not to pull scheduled maintenance.

4. (FOUO) Item: Turn-in of Modules for Repair.

a. Discussion: On occasion some avionics detachments have turned in modules with missing hardware to the general support activities. This hardware includes such things as covers, tube shields and screws. Like-item replacement can be difficult to obtain.

b. Observation: Turning in items as complete as possible for repair, not only takes a load off the supply system, but decreases turn around time for the item being repaired.

5. (FOUO) Item: Introduction of New Equipment.

a. Discussion: Once again new items of avionics equipment have been introduced into the combat zone, which are not supportable by maintenance units. The AN/ARN-82 and 83 radios started appearing in RVN during this past quarter. Although the maintenance support plan called for simultaneous introduction of repair parts packages, float, manuals and test equipment, they have not yet arrived.

b. Observation: The effect of introducing non-supportable equipment into a combat zone is two-sided. First the equipment itself is subject to failure, and when it fails, the aircraft in which it is installed must do without. Furthermore, by placing the new equipment in the aircraft, the unit is denied the older, but supportable equipment which it replaced. There is but one answer to this problem. Development and procurement of test equipment must be concurrent with development and procurement of the major item. The cost of the expedited development is more than offset by the potential saving of one life, which may depend on the new equipment to be installed in aircraft. Likewise, procurement of parts must be concurrent with the end item, even if end item production must be curtailed to divert parts to the maintenance support supply channel.

D. LOGISTICS

1. (FOUO) Item: Requests for equipment in excess of authorized allowances.

a. Discussion: Aviation units are frequently required to provide their own base camp support and security, and are made responsible for operating an airfield. The TOE of these type units is not geared or intended for these operations, and to do the job properly, additional equipment and manpower is needed in a minimum of time. The current method of using MTOE requests to obtain men and equipment is both slow and combersome, and many of the items requested are not appropriate for TOE inclusion.

b. Observation: That a flexible, faster means of obtaining authority for requisitioning and retaining equipment and personnel for use in base camp and security operations would be highly desirable for units in RVN. This headquarters has recommended to USARV that a TDA be formulated for each fixed-base airfield to accomplish base needs.

2. (FOUO) Item: Peneprime

a. Discussion: Peneprime is a new, hard base, asphaltic material, which has been diluted with a kerosene and naptha solvent.

b. Observation: Peneprime is proving successful as a dust palliative. The 165 gal bituminous kettle is the best single item of equipment for applying peneprime at the small, numerous, widely scattered areas characteristic of aviation operations in RVN. The few kettles in country are assigned to a limited number of engineer units, and are not readily obtainable throughout the command.

3. (FOUO) Item: XM-21 Armament System

a. Discussion: 1st Aviation Brigade now has fifty eight XM-21 systems on hand, of which forty five are installed and operational. Reports reaching this office indicate that malfunctions continue at a low rate. Two systems are known deadlined for critical parts.

b. Observation: Information available indicates that critical parts will not arrive in theatre until 31 March. This indicates lack of coordination in the maintenance support plan.

4. (FOUO) Item: Linked 7.62mm Ammunition.

a. Discussion: At present, the only way to provide a 1500 round belt of ammunition for the XM-21 is to link together, by hand, 7½ 200 round belts. This is a time-consuming process.

b. Observation: A formal request has been submitted through channels to obtain 1500 round belts of 7.62mm ammunition for aircraft use only.

5. (FOUO) Item: Aircraft Maintenance Facilities

a. Discussion: When some of the aviation units arrived in Vietnam, no aircraft parking or covered maintenance facilities existed. The precision maintenance performed on all aircraft, but especially on CH-47 aircraft, requires covered maintenance facilities.

b. Observation: Lack of parking and covered maintenance facilities has created an undue hardship on personnel performing aircraft maintenance.

6. (FOUO) Item: Real Estate

a. Discussion: More consideration should be given to consolidating Army facilities; particularly where Army facilities are in the vicinity of facilities belonging to other military services. In the past there appears to have been an "open season" on facilities occupied by individual Army units. This was especially true when agreements, if they existed at all, were not formalized.

b. Observation: The use of more formal realestate agreements should add stability to units.

E. SAFETY

1. (FOUO) Item: Aircraft accident/combat loss.

a. Discussion: The aircraft accident to combat loss ratio continues to be approximately seven to one.

b. Observation: To improve this ratio, continued emphasis is being placed on aviator standardization training, air crew teamwork and quality control in maintenance. Aviators are thoroughly familiarized with the "GO-NO-GO" procedures, and understand the limitations which climatic conditions impose upon the lifting capabilities of the aircraft.

F. INFORMATION

1. (FOUO) Item: News Releases

a. Discussion: The Army Home Town News Center does not credit releases from subordinate units of the 1st Aviation Brigade.

b. Observation: To insure better accountability of brigade releases, brigade units have been directed to reflect "1st Aviation Brigade" as the "from" agency on the DA form 1526 "Home Town News Release."

G. FLIGHT INFORMATION

1. (FOUO) Item: A requirement exists to supply aviators with information to assist in the successful completion of their flights, when the information does not meet the criteria of notices to airmen (NOTAM).

a. Discussion: NOTAMS are presently disseminated through the Air Weather Teletype system. This limits distribution, since any airfield not having a weather detachment would not receive the NOTAM. The criteria of information to be contained in a NOTAM is restrictive, and in many cases, information that would assist the Army aviators in achieving safer and more efficient flight operations is prohibited from publication as a NOTAM.

b. Observation: A proposed regulation was submitted to USARV aviation establishing procedures for the collection and dissemination of Flight Information Notices. These notices would contain information needed by the Army aviator that does not meet the criteria of a NOTAM, and would be transmitted over the command teletype circuit, thus obtaining widest dissemination.

SECTION II

PART I

RECOMMENDATIONS

1. That a flexible, expeditious means of obtaining authority for

requisitioning and retaining equipment and personnel for use in base camps be established by USARV. (Current MTOE submission procedure is too time consuming).

2. (FOUO) That, when practical, combat assaults be conducted during low tide to take advantage of the many bonus effects derived.

3. (FOUO) That continued emphasis be placed on development of a workable artillery advisory system for aircraft throughout Vietnam.

4. (FOUO) That command emphasis be placed on obtaining a general support maintenance capability whithin Vietnam for OV-1 avionics systems and ground operated navigation equipment.

5. (FOUO) That training for hard skill MOS's, such as avionics, include a good groundwork of general theory. Also recommend that advanced students who receive special training on particular end items of equipment be identified, to facilitate proper assignment and utilization.

6. (FOUO) That Department of the Army level action be initiated to insure co-development and co-distribution of avionics test equipment and repair parts with new avionics items introduced into the field, particularly into the combat zone.

7. (FOUO) That 165 gallon bituminous kettles be stocked at base camps by PA & E or other Engineer sources for use on airfields within the area.

8. (FOUO) Construction planning, to include allocation of funds for permanent aircraft parking and covered maintenance facilities, should begin concurrently with plans to deploy an aviation unit overseas. This would permit completion of the permanent facilities prior to the arrival of these units.

For JOHN DIBBLE JR.
Colonel, Artillery
Acting Commander

5 Incl
1. Commanders Notes
2. Tactical Lessons Learned
3. OV-1 Conference Minutes (CONF)
4. Aviation Brigade Command Structure
5. Hawk Talk