**UNCLASSIFIED**

<table>
<thead>
<tr>
<th>AD NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD514530</td>
</tr>
</tbody>
</table>

**CLASSIFICATION CHANGES**

<table>
<thead>
<tr>
<th>TO:</th>
<th>UNCLASSIFIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM:</td>
<td>CONFIDENTIAL</td>
</tr>
</tbody>
</table>

**LIMITATION CHANGES**

<table>
<thead>
<tr>
<th>TO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved for public release; distribution is unlimited.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FROM:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; 12 AUG 1970. Other requests shall be referred to Office of the Adjutant General, Washington, DC 20301.</td>
</tr>
</tbody>
</table>

**AUTHORITY**

AGO ltr 29 Apr 1980 ; AGO ltr 29 Apr 1980
SECURITY MARKING

The classified or limited status of this report applies to each page, unless otherwise marked. Separate page printouts MUST be marked accordingly.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18, U.S.C., SECTIONS 793 AND 794. THE TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U.S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.
THIS REPORT HAS BEEN DELIMITED
AND CLEARED FOR PUBLIC RELEASE
UNDER DOD DIRECTIVE 5200.20 AND
NO RESTRICTIONS ARE IMPOSED UPON
ITS USE AND DISCLOSURE.

DISTRIBUTION STATEMENT A

APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED.
AGDA-A (M) (12 Mar 71) FOR OT UT 703266 19 March 1971


SEE DISTRIBUTION

1. The attached report is forwarded for review and evaluation in accordance with para 4b, AR 525-15.

2. The information contained in this report is provided to ensure that lessons learned during current operations are used to the benefit of future operations and may be adapted for use in developing training material.

3. Information of actions initiated as a result of your evaluation should be forwarded to the Assistant Chief of Staff for Force Development, ATTN: FOR OT UT within 90 days of receipt of this letter.

BY ORDER OF THE SECRETARY OF THE ARMY:

[Signature]

VERNE L. BOWERS
Major General, USA
Acting The Adjutant General

DISTRIBUTION:

Commanding Generals
US Continental Army Command
US Army Combat Developments Command
US Army Materiel Command

Commandants
US Army War College
US Army Command and General Staff College
US Army Armor School
US Army Aviation School
US Army Engineer School
US Army Field Artillery School
US Army Infantry School
US Army Ordnance School
US Army Transportation School

Regraded unclassified when separated from classified inclosure.

CONFIDENTIAL
DISTRIBUTION (Cont'd)

Copies furnished:
Office, Chief of Staff, US Army
Deputy Chiefs of Staff
Chief of Research and Development
Assistant Chiefs of Staff
Chief of Engineers
Commanding Generals
   US Army Flight Training Center
   Desert Test Center
   III Corps, ATTN: Director, Project MASSTER
Commandant of the Marine Corps
Defense Documentation Center
USAF Project RAND
Commanding Officers
   US Army Limited War Laboratory
   US Army Logistics, Doctrine Systems & Readiness Agency
   US Army Aviation Test Activity
   US Army Mobility Equipment Research & Development Center
CONFIDENTIAL

DEPARTMENT OF THE ARMY
HEADQUARTERS, 145TH AVIATION BATTALION (COMBAT)
APO San Francisco 96227

"FIRST IN VIETNAM"

AV8 CA-BC 12 August 1970

SUBJECT: Operational Report - Lesson Learned, 145th Aviation Battalion
(Combat), Period Ending 31 July 1970 RCS CSPOR-65 (H-2)

SEE DISTRIBUTION

1. Operations: Significant Activities:

a. Mission: The overall mission of this Battalion did not change
during the reporting period. This mission is to augment the capabilities
of II Field Forces Vietnam and the Republic of Vietnam forces which ope-
rate in the III Corps Tactical Zone.

b. Organization:

(1) No organizational changes took place during this reporting Period.

(2) The 334th Avn Co (Atk Hel) was relocated to Phu Loi, APO San
Francisco 96289, effective 6 May 1970. The 11th Avn Bn (Cbt) will furnish
the 334th Avn Bn (Atk Hel) with medical support at their new location.

(3) As of 31 July 1970, the Battalion was organized as shown by
inclosure 1.

c. PERSONNEL:

(i) Command and Staff changes and present status:

(a) Commanding Officer, 145th Aviation Battalion (Combat) (19 May 70)

Outgoing: LTC Jack Seliskar 470-26-3170 IN
Outgoing: LTC Calvin G Dodd 455-46-1580 IN (12 Aug 70)
Incoming: LTC William H Dillard 226-30-2072 IN (12 Aug 70)

(b) Battalion Executive Officer (27 Jul 70)

Outgoing: MAJ Thomas R Wolf 378-34-6725 IN
Incoming: MAJ Bobbie G Pedigo 405-40-3223 AR

(c) Battalion Adjutant

CPT Michael J Scanlon 228-62-8011 AR

FOR AT UT
703226
Inclosure 1

CONFIDENTIAL

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10
AVHACA-3C
SUBJECT: Operational Report - Lessons Learned, 145th Aviation Battalion (Combat), Period ending 31 July 1970 RCS C37104-55 (R2)

(d) Battalion S-2
   CPT Thomas A Stogren 506-52-4374 AR

(e) Battalion S-3 (5 Jul 70)
   Outgoing: MAJ Robert H Smith 257-52-2759 IN
   Incoming: MAJ Lyman G Culver 507-52-7158 IN

(f) Battalion S-4 (4 Jun 70)
   Outgoing: CPT Billy G Murphy 274-36-3903 IN
   Incoming: CPT Jerry R Hill 466-68-3051 IN

(g) Commanding Officer HHC (26 Jul 70)
   Outgoing: CPT Jerry D McGlothlin 313-30-9799 IN
   Incoming: CPT Thomas A Stogren 506-52-4374 AR

(h) Commanding Officer 66th Avn Co (Atk Hel) (4 May 70)
   Outgoing: MAJ Luther L French 436-54-2175 IN
   Incoming: MAJ Mitchell G Thompson 413-50-5178 FA

(i) Commanding Officer 118th Avn Co (Atk Hel) (5 Jul 70)
   Outgoing: MAJ Michael P Hefferman 419-40-1443 IN
   Incoming: MAJ Robert H Smith 257-52-2769 IN

(j) Commanding Officer 190th Avn Co (Atk Hel)
   MAJ Dale W Pierce 261-44-4425 IN

(k) Commanding Officer 334th Avn Co (Atk Hel)
   MAJ John R McQuesten 264-52-3902 IN

(l) Commanding Officer 324th ASD
   MAJ Jack A King 446-22-0270 IN

(2) Unit Strength: On 31 July 1970, the Battalion was at 90% total strength. Individual unit strengths are shown by Inclosure 2.
CONFIDENTIAL

AVBACG-3C 12 August 1970

SUBJECT: Operational Report - Lessons Learned, 145th Aviation Battalion (Combat), Period Ending 31 July 1970 RC5 CJFOI-65(R-2)

d. Aircraft Status: At the end of this reporting period the Battalion had on hand 50% of the total aircraft authorized. Aircraft status as of 31 July 1970, classified by unit and type of aircraft, is shown in Inclosure 3.

e. Chronology of Significant Events:

(1) From 26 April 1970 through 30 June 1970 the 145th Aviation Battalion (Combat) provided support to United States and Allied Forces operating in Cambodia. Missions were flown daily as directed by II FFV, AAE. The main units supported by the 145th Aviation Battalion (Combat) were 25th ARVN Div., 11th ACR, 3/9th Inf, and 25th Inf Div. As a result of this operation the 145th Aviation Battalion (Combat) was credited with killing 166 enemy soldiers, destroying 309 structures and 5 sampans. There were 17 reported secondary explosions.

(2) The 190th Avn Co (Aslt Hol) began its Vietnamese Air Force (VNAF) Improvement and Modernization program on 15 June 1970 with the arrival of seven (7) VNAF EM ranging in grades from E-4 through E-3. These personnel were turbine engine repairmen, their experience levels ranged from 6 months to 12 years. On 1 July 1970, the unit received 25 VNAF enlisted personnel in grades E-1 and E-2. These personnel were UH-1 helicopter repairmen, trained at the US Army Transportation School at Fort Bliss, Texas. Prior to their arrival they had no previous practical experience. On 16 July 1970, a VNAF maintenance crew assisted by mechanics of the 190th Avn Co (Aslt Hol) performed the 6th periodic inspection on UH-1D Serial No. 69-15755, assigned to Headquarters, 12th Aviation Group (Combat). On or about 3 August 1970 a VNAF maintenance crew will perform a complete periodic inspection on a UH-1 type aircraft. It is intended that all assistance rendered by US personnel will be on an "as needed" basis only. The overall quality of work performed by the VNAF maintenance personnel has been exceptionally high. The Engine personnel have displayed an excellent working knowledge of the T-53 engine, this is largely due to their high experience level. The mechanics have consistently displayed an eager willingness to learn and to employ the skills and knowledge they acquired while at the transportation school.

(3) On 1 June 1970 USAV directed that no TOS/ITOE equipment belonging to the 190th Avn Co (Aslt Hol) could be laterally transferred without their approval.

INCL 3

CONFIDENTIAL
On 1 May was the third day of a special mission requiring the 334th Avn Co (Atk Hel) to provide 4 light fire teams on 5 minute standby 24 hours a day. Five fire teams were staged at Cu Chi using 1 team as a spare. The Operations section utilized an area provided by the 269th Aviation Battalion (Combat). The problem area encountered in this type mission was communications, primarily because all ground to air communications with supported units was with FM radios. The aircraft traveled approximately 30 miles from Cu Chi to the area of operation. The only ground radio this unit has by TD&E is FM, 333, and UHF vehicle mounted radios. This proved to be unsatisfactory because of the necessity to use makeshift antennas. Aircraft on assigned missions were required to use their FM radio to communicate with headquarters, the aircraft until the mission was completed and the aircraft changed to the company FM frequency. While the mission was in progress, the company was in the process of making a move from Phu Loi to Quan Loi. While this necessitated radio communications at three different locations, the 334th Avn Co (Atk Hel) was unable to monitor the Battalion secure frequency due to the limited radio capability. Land lines between Cu Chi and Bien Hoa were completely unsatisfactory, this caused a delay in reports and coordination between Battalion Operation Center and the 334th Avn Co (Atk Hel). During the special operation the company lost two aircraft due to combat damage bringing our total assets to seventeen AH-1G and two UH-1 aircraft. On 4 May, the rear element at Bien Hoa received the order to complete the move to Phu Loi by 5 May. On 6 May the Operation at Cu Chi was terminated and all personnel and equipment returned to Phu Loi. Missions for the remainder of May and the first of June were normal OPCON and E3B type missions assigned by II FFV, Adm.
b. The 334th Avn Co (Atk Hel) is now required to maintain it's own ammunition supply point. This places an additional work load on the ammunition section. The section is authorized 10 enlisted men and presently has 5 assigned.

(5) Bien Hoa Air Base was subjected to 5 rocket and mortar attacks during this reporting period. The 145th Aviation Battalion (Combat) area was hit 3 times resulting in 1 Vietnamese civilian KIA, 9 US WIA and 1 building damaged.

(6) The following is a list of the number of awards submitted and received by individuals in this battalion.

<table>
<thead>
<tr>
<th>SUBMITTED</th>
<th>AWARD</th>
<th>RECEIVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Silver Star</td>
<td>3</td>
</tr>
<tr>
<td>0</td>
<td>Legion of Merit</td>
<td>1</td>
</tr>
<tr>
<td>63</td>
<td>Distinguished Flying Cross</td>
<td>45</td>
</tr>
<tr>
<td>7</td>
<td>Soldiers Medal</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Bronze Star &quot;V&quot;</td>
<td>1</td>
</tr>
<tr>
<td>155</td>
<td>Bronze Star</td>
<td>162</td>
</tr>
<tr>
<td>41</td>
<td>Air Medal &quot;V&quot;</td>
<td>62</td>
</tr>
<tr>
<td>303</td>
<td>Air Medal</td>
<td>312</td>
</tr>
<tr>
<td>7</td>
<td>Army Commendation Medal &quot;V&quot;</td>
<td>4</td>
</tr>
<tr>
<td>498</td>
<td>Army Commendation Medal</td>
<td>592</td>
</tr>
<tr>
<td>13</td>
<td>Purple Heart</td>
<td>13</td>
</tr>
</tbody>
</table>
2. Lessons Learned: Commander’s Observations, Evaluation, and Recommendations:

a. Personnel: None

b. Intelligence: None

c. Operations:

Mission Coordination

(1) OBSERVATION: In too many instances, coordination for missions is incomplete or inadequate.

(2) EVALUATION: Coordination for many of the missions received by the 145th Avn Bn (Cbt) consist only of coordinates, call sign and a frequency. Many blade hours are wasted by having the wrong frequency, or a change in mission unknown to anyone but the supported unit.

(3) RECOMMENDATION: That at the time the mission is assigned to the battalion, the following information be furnished:

(a) Name of supported unit

(b) Location of supported unit

(c) Call sign

(d) Primary and alternate frequencies

Excess Rarming Time For AH-1G

(1) OBSERVATION: There is an excessive time lapse for AH-1G rearming turn around.

(2) EVALUATION: The AH-1G in the light hog configuration carries 52, 2.75 inch rockets, 400 rounds of 40MM, and 3000 rounds of 7.62 mini-gun ammunition. Systems have been developed to facilitate rapid rearming and faster turn around time. It has been the experience of aviators in the 334th Avn Co (Atk Hel) that few rearm points in MR III have personnel trained in rearming the AH-1G aircraft. Because of this the aircraft has to be shut down. Both pilots then dismount and rearm the aircraft. Rearming time varies, however, with fully expended weapons systems the average time spent on the ground at the rearm point is thirty minutes. This does not take into consideration any problems encountered in the weapons system, ammunition not being broken down, and refueling time. Consequently, turn around time is greatly increased, and the combat efficiency of the AH-1G is significantly impaired.
CONFIDENTIAL

AVBACA-BC

SUBJECT: Operational Report - Lessons Learned, 145th Aviation Battalion (Combat), Period Ending 31 July 1970 RCS OSFOM-65 (R-2)

(3) RECOMMENDATION:

(a) That all major rearm points in MR III have trained personnel on hand for the rapid rearming of AH-1G helicopters.

(b) That all units responsible for major rearm points give consideration to providing at least one person trained in the various armament systems installed on AH-1G aircraft.

Improved AH-1G Oil Cooler Cleaning Procedures

(1) OBSERVATION: The failure rate of oil cooler fan on the AH-1G is extremely high if it is not properly cleaned.

(2) EVALUATION: Due to the extreme environmental condition, the oil cooler fan bearings become dirty and cause the fan to fail. The 3/4th Avn Co (Atk Hel) has found that cleaning the assembly with solvent and rinsing with water has partially alleviated the problem.

(3) RECOMMENDATION: That this method of cleaning be incorporated in the PMI. All that is required to clean the assembly is to remove the screen and blades, wash with solvent, and rinse with water.

Inadequate Instrumentation of the AH-1G Aircraft

(1) OBSERVATION: There is a considerable delay in the application of MWOs and other procedures to repair inoperable attitude indicators.

(2) EVALUATION: Due to the nonavailability of attitude indicators and MWO kits, many aircraft are required to fly with only one attitude indicator. In some older aircraft both the pilots and co-pilots attitude indicators are inoperable. This situation is extremely hazardous to safety, especially during the monsoon season. At times, aircraft are unable to take off before daylight and must return to home station before dark due to the lack of attitude indicators.

(3) RECOMMENDATION: That immediate steps be taken in aviation logistics channels to alleviate the shortage of attitude indicators and MWO kits.

Combat Damage Assessment and KBA figures

(1) OBSERVATION: Damage or results of AH-1G airstrikes are seldom received at unit level.
CONFIDENTIAL

12 August 1970


(2) EVALUATION: Due to the nature of the mission of the 33rd Avn Co (Atk Hel), i.e., not working directly for any unit but supporting most of the units in MR III, it seldom receives any combat damage assessment or KBA figures from most missions flown. This makes any after action reports inaccurate because the mission commander must estimate results.

(3) RECOMMENDATION: That a system be implemented requiring supported units to submit a combat damage and KBA report to 11 FFV LDR, and that the results be called down to the 1/45th Avn Bn (Cbt) operation center.

VNAF I&M Program

(1) OBSERVATION: Excess non-mission essential equipment causes the deactivating unit unnecessary problems once it enters the programmed phase. Many items of equipment could be laterally transferred within the battalion before the deactivating unit begins the VNAF I&M Program.

(2) EVALUATION: After the 100% inventory is submitted all lateral transfers must be approved by USARV. This process is time consuming, and results in a 3 or 4 day lag before actual transfer is accomplished. Disposition of turn in of all TOE equipment is also time consuming. Lateral transfer would be more advantageous for both the deactivating unit and the gaining unit.

(3) RECOMMENDATION:

(a) That deactivating units conduct an inventory prior to coming under the I&M program and furnish a list of equipment available for lateral transfer to companies within the battalion.

(b) That the deactivating unit review their TOE/MTOE equipment for excess and non-mission essential items and accomplish turn in action in accordance with USARV Reg 310-33 dated 16 June 67.

(4) COMMAND ACTION: Correspondence is being forwarded to the 12th Avn Gp (Cbt) recommending that the above be adopted as policy.

Discharging Of Weapons From Helicopters

(1) OBSERVATION: During the past few months, the 145th Avn Bn (Cbt) has been contacted in regards to several incidents involving the firing of weapons from helicopters.

(2) EVALUATION: The majority of the above firing incidents involved one UH-1 helicopter. MACV Directive 525-13 Sec 7-c, Annex B, page 6 lists the rules of engagement and specifically states: "Airborne/ground firing will be conducted only after obtaining permission from the appropriate clearance authority."
AVIATION-DC

CONFIDENTIAL 12 August 1970

SUBJECT: Operational Report - Lesson Learned, 145th Aviation Battalion (Combat), Period Ending 31 July 1970 RCS CORH-65 (H-2)

The artillery zone in which an aircraft is operating can supply information as to free fire zones. Although gunnery practice is encouraged to maintain proficiency, indiscriminate test firing of weapons can result in the loss of life and property and cannot be condoned.

(3) RECOMMENDATION: That renewed emphasis be placed on the rules of engagement with particular stress placed upon airborne test firing of weapons.

(4) COMMAND ACTION: Units assigned to the 145th Arm Co (Cbt) have held meetings and discussed this topic in detail. Increased emphasis has been placed on this particular item during the initial "In-Country" orientation for all aviators, crew chiefs and door gunners.

Avoiding Engine Damage Following Solvent Flush

(1) OBSERVATION: During the past two months this battalion has had several engine changes due to careless procedures during and following solvent flushes. In all cases an exess of solvent remained in the combustion chamber following flushing, and when the aircraft was subsequently started, the solvent ignited causing hot starts. In one case, the crew thought the engine was on fire and sprayed cold CO2 up the hot end, necessitating an engine overhaul.

(2) EVALUATION: These situations were caused by a lack of knowledge of correct procedures to be followed when solvent flushing engines.

(3) RECOMMENDATION: That command emphasis be placed on strict compliance with proper solvent flush procedures. Two important points are: (1) To insure that the combustor is drained of excess solvent by tapping the small square drain on the bottom of the combustion chamber with a screwdriver or wrench, and (2) To insure that proper hot start procedures are followed in case of a hot start, to include continuing to motor the starter and to refrain from using fire extinguishers or water to extinguish flames emitting from the hot end.

(4) COMMAND ACTION: This specific problem has been discussed in company safety meetings, and the above recommendations have been stressed.

Communications Security

(1) OBSERVATION: A considerable amount of operational type information involving flight destination, time sequences, grid co-ordinates, and number of aircraft are being passed in the clear or by unauthorized code systems.

(2) EVALUATION: The passing of operational type traffic in the clear or by unauthorized code affords the enemy with an abundance of useful information and insight into our operations.

CONFIDENTIAL
It appears the use of secure voice has decreased with the expectation of the arrival of VNAF aviators.

(3) **RECOMMENDATION:**

(a) That the use of secure voice be emphasized until the VNAF actually assumes all responsibilities.

(b) That there be a wider dissemination of KAC-55B (plastic wheels) and keys which allow the aviator to encode or decode operational information in an efficient and accurate manner.

(4) **COMMAND ACTION:** Command emphasis is being placed on the continued use of secure voice. Secure voice is utilized at all times between the 145th Arm Bn (Combat) and company operation sections for passing "need to know" and operational type traffic.

Warm up of the AN/ARC-54 FM radio

(1) **OBSERVATION:** Failure of the AN/ARC-54 radio frequently occurs on run-up or immediately after the radio is turned on.

(2) **EVALUATION:** Keying the transmitter of the AN/ARC-54 FM radio without adequate warm up time will result in damage to the radio.

(3) **RECOMMENDATION:** That all aviators allow a minimum warm up period of 3 to 5 minutes before keying the transmitter.

(4) **COMMAND ACTION:** Commanders have been informed of the problem and requested to inform their aviators of this information.

Radio Discipline

(1) **OBSERVATION:** During combat assault operations, radio traffic must be kept to a minimum during the period of time the aircraft are on approach to, in and departing the landing zone.

(2) **EVALUATION:** On Combat Assaults from 500 feet prior to touchdown until 500 feet on takeoff no transmissions should be made unless fire is received or a flight incident is imminent. The availability of the open frequency will enhance suppressive fire instructions and flight safety. Additionally, strict radio discipline during the initial landing/takeoff phase allows the Aircraft Commanders to better concentrate on their flying and inter-aircraft instructions. If the unit is divided into 2 flights, the flight not involved with the actual insertion/extraction must monitor the radios to know which phase of the combat assault the other flight is involved so as not to tie up the frequency with formation changes, POL activities, etc.
CONFIDENTIAL

AVBACA-BC

SUBJECT: Operational Report - Lessons Learned, 145th Aviation Battalion (Combat), Period Ending 31 July 1970 HCS OSPOR-65 (R-2)

(3) RECOMMENDATION: That all units be aware of the situation and evaluate their Standing Operating Procedures.

(4) COMMAND ACTION: Flight crews have been briefed on this matter.

Use of Survival Equipment

(1) OBSERVATION: It had been noted in past accidents that individuals involved were left on the ground with only that equipment that was physically on their person at the time of the accident.

(2) EVALUATION: None

(3) RECOMMENDATION: None

(5) COMMAND ACTION: Survival vests, FSN 8465-177-4819, were ordered through supply channels and issued to aviators. These vests provide the individual a means to equip himself with the necessary items for survival in an escape and evasion situation.

Drug Abuse

(1) OBSERVATION: The use of drugs by aviation personnel is becoming a major problem facing all aviation units.

(2) EVALUATION: The 145th Avn Bn (Cbt) dispensary reports that an estimated 2-3 percent of assigned personnel are currently using heroin on a regular basis. As of this time the 145th Avn Bn (Cbt) dispensary has been unable to arrive at a practical plan for the treatment of these individuals in RVN.

(3) RECOMMENDATION: That USARV take a greater interest in the users of the "Hard Drugs." Also that a treatment center be established in RVN to aid the concerned personnel in breaking the drug habit both mentally and physically.

(4) COMMAND ACTION: The 145th Avn Bn (Cbt) dispensary has established a series of lectures for all officers and enlisted men of this battalion. These lectures place emphasis on the physiological and pathological harm caused by the drugs most commonly abused in Vietnam. The dangers of "Hard Drugs" such as heroin was stressed in these lectures.

SPH-4 Helmets

(1) OBSERVATION: Adequate repair parts for the new SPH-4 helmets are not available.

(2) EVALUATION: Although the new SPH-4 flying helmet has arrived in RVN in large numbers, adequate repair parts/kits for this helmet are not available. As a result of this shortage of repair parts, cannibalization has become the only solution in many cases.
CONFIDENTIAL

AVIATION BC

OPERATIONAL REPORT - LESSON LEARNED, 145TH AVIATION BATTALION (COMBAT), PERIOD ENDING 31 JULY 1970 ROC GSP07-65 (N-2)

SUBJECT: OPERATIONAL REPORT - LESSON LEARNED, 145TH AVIATION BATTALION (COMBAT), PERIOD ENDING 31 JULY 1970 ROC GSP07-65 (N-2)

(1) RECOMMENDATION: Improve the 145th Avn Bn (Cbt) capability to repair both the SPH-4 and the APH-5 helmets. This could be done by bringing the problem to the proper source and obtaining the needed parts.

(4) COMMAND ACTION: The supply officer for the 68th Avn Co (Apt Hol) is presently researching sources in Long Binh Depot in an effort to determine how the needed repair kits can be obtained.

PSP Pads

(1) OBSERVATION: Each rainy season, numerous aircraft accidents and incidents occur as a result of wet PSP pads.

(2) EVALUATION: Each rainy season the safety officer of every unit from the 1st Aviation Brigade down to company level preach the dangers of landing on wet PSP pads. Because this type of material is so readily available it is widely used in MR III.

(3) RECOMMENDATION: Make the problem known to the owners of these pads through information letters. These letters should point out how hazardous PSP can be when it is wet. It should also point out that antiskid paint is readily available through supply channels.

(4) COMMAND ACTION: Pilots of this unit have been instructed to speak to various units that utilized PSP pads and bring the dangers of PSP to their attention.

Operation "Liberty"

The following recommendations for improvement in the transportation of VIP's is forwarded based upon the cumulative data obtained as a result of Operation "Liberty" conducted 7 June 1970.

a. The movement of photographers and lesser dignitaries should be facilitated prior to the movement of the main body of VIP's. In this manner, photographs may be taken and there will be no delay in the flow of the tour. This will also prevent congestion at a small heliport, e.g. Red Carpet.

b. Darkness and inclement weather should be considered. Flashlights had to be brought in to aid in ushering the VIP's to and from the aircraft during the hours of darkness.

c. Frequencies should be more thoroughly researched to prevent communications interference. Utilization of VHF radios as the primary means of communication rather than UHF, due to the fewer number stations using VHF, is recommended.
CONFIDENTIAL

12 August 1970

SUBJECT: Operational Report - Lessons Learned, 145th Aviation Battalion (Combat), Period Ending 31 July 1970 RG CSFOR-65 (R-2)

d. Recommend that one aircraft in the flight be responsible for artillery. Close monitoring of the artillery frequencies is necessary and a C and C aircraft 10 to 30 minutes ahead of the flight cannot stay abreast of the artillery situation.

WILLIAM H DILLARD
LTC, Infantry
Commanding

DISTRIBUTION:
2 - CINCUSARPAC, ATTN: GPOP-DT, APO 96558
3 - CG, USARV, ATTN: AVHCC-DST, APO 96375
2 - CG, 1st AVN BDE, ATTN: AVBAGC, APO 96384
3 - CO, 12th AVN GP (CBT), ATTN: AVBAGC-SC, APO 96266

CONFIDENTIAL
AVIACA-SC (13 Aug 70), 1st Ind

SUBJECT: Operational Report-Lessons Learned, 145th Aviation Battalion (Combat) for the period ending 31 July 1970 RC: CSFOR-45 (R2) (U)

DA, HEADQUARTERS, 12TH AVIATION GROUP (COMBAT), APO 96266 2 September 1970

THRU: Commanding General, II Field Force Vietnam, APO 96266

Commanding General, 1st Aviation Brigade, ATTN: AVRA-C, APO 96384

Commanding General, US Army Vietnam, ATTN: AVHGC(DST), APO 96375

Commander-in-Chief, US Army Pacific, ATTN: GPOP-DT, APO 96558

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

1. (U) This headquarters has reviewed and concurs with the Operational Report-Lessons Learned for the period ending 31 July 1970 from Headquarters, 145th Aviation Battalion (Combat).

2. (C) The following comments are provided:

   a. Reference: page 6, para 2c, Mission Coordination. Units are frequently directed by 12th Aviation Group (Combat) Army Aviation Element (AAE) that confirmation of call signs, frequencies, and reporting information is required. The recommended information is now being furnished the aviation units by AAE.

   b. Reference: page 7, para 2c, "Improved AH-1G Oil Cooler Cleaning Procedures". This cleaning procedure is being used by all 12th Avn Gp (Cbt) units as a part of the PMI. During required PMI's and PKP's this headquarters feels the recommendation is valid and should be expanded to include the PHP.

   c. Reference: page 8, para 2c, "VNAF I&M Program". Approval of lateral transfers from I&M units under OPLAN 70-51 are now being approved by G-4, 1st Aviation Brigade. In addition, a coordination meeting was held on 20 August 1970 by the S-4, 12th Avn Gp (Cbt) to plan future requirements for units inactivating under the plan.

   d. Reference: page 12, Operation Liberty. The recommendations were noted and considered in planning Betsy Ross, a similar operation, which will be presented in the 12th Avn Gp (Cbt) ORLL for the present quarter.

JOHN C. HUGHES
Colonel, Infantry
Commanding

CONFIDENTIAL
CONFIDENTIAL

AVFBC-RE (12 Aug 70) 2nd Ind

SUBJECT: Operational Report - Lessons Learned of 145th Aviation Battalion (Combat) for Period Ending 31 July 1970

KOS: CSFQR_65 (K2)(U)

UA, HQ, II Field Force Vietnam, APO San Francisco 96266 14 SEP 1970

THRU: Commanding General, 1st Aviation Brigade, ATTN: AVBA-C APO 96384

Commanding General, US Army Vietnam, ATTN: AVHGC-DST, APO 96375

Commander-In-Chief, US Army Pacific, ATTN: GPOP-DT, APO 96538

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

1. (U) This headquarters has reviewed the Operational Report - Lessons Learned for the quarterly period ending 31 July 1970 from 145th Aviation Battalion (Combat) and concurs with the comments of the indorsing headquarters.

2. (C) Comment follows: Reference item concerning "Communications Security", page 9. COMUSMACV msg 66776, 040552Z Dec 69, authorized RVNAF use of NESTOR equipment, restricted to the use of Headset/Handset only in the presence of cleared US personnel. Joint use of NESTOR equipment is encouraged at all command levels, and is available to US advisory teams down to regimental and province level. Continued use of NESTOR equipment, especially on joint airmobile operations, should be emphasized as long as the aircraft are under US control.

FOR THE COMMANDER:

W. C. BARTEL
CPI, AGC
Asst AG

CONFIDENTIAL
SUBJECT: Operational Report - Lessons Learned of 145th Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFOR-65 (A2) (U)

DA, HEADQUARTERS, 1ST AVIATION BRIGADE, APO 96384 25 SEP 19/0

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375

1. This headquarters has reviewed subject report and concurs with the contents as indorsed.

2. The following additional comments are considered pertinent:

   a. Paragraph 2, page 7, addresses problem with oil cooler cleaning procedures on AH-1G aircraft. Concur. TM 55-1520-221-20 does not have a cleaning procedure. This headquarters has requested unit to submit DA Form 2028 (Recommended Change to Military Publications Form) explaining in detail the procedures being currently used.

   b. Paragraph 2, page 7, addresses problem with instrumentation in AH-1G aircraft. Concur. An MDQ program is being initiated for AH-1G helicopters which includes MDQ 55-152-221-30/19 for an improved attitude indicator.

   c. Paragraph 1, page 9, discusses the necessity for several turbine engine changes due to improper solvent flushing procedures. Concur. This headquarters has recently published procedures for proper cleaning of turbine engines.

FOR THE COMMANDER:

R. L. STREICHER
CPT, AGC
Asst Adjutant General
1. This Headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1970 from Headquarters, 145th Aviation Battalion (Combat) and comments of indorsing headquarters.

2. Comments follow:

a. Reference item concerning "Inadequate Instrumentation in the AH-1G Aircraft," page 7, paragraph 2c. The improved attitude indicator MNO is being accomplished at the present time. Maintenance at Vung Tau will modify 224 AH-1G aircraft at the rate of 25 per month. Unit has been so advised.

b. Reference item concerning "VNAP I&M Program," page 8, paragraph 2c. This Headquarters has coordinated with appropriate agencies to insures necessary action by units deactivating. Unit has been so advised.

c. Reference item concerning "Avoiding Engine Damage Following Solvent Flush," page 9, paragraph 2c. The correct engine cleaning procedure is in maintenance manuals of the UH-1 and AH-1 aircraft. Compliance with proper procedures will preclude engine hot starts. Unit has been so advised.

d. Reference item concerning "Drug Abuse," page 11, paragraph 2c; concur. AR 600-32, Drug Abuse Prevention and Control, dated 23 September 1970 states "Limited rehabilitation of restorable drug abusers, when appropriate and consistent with the sensitivity of the mission, will be provided at the lowest unit level possible." A USARV Supplement to AR 600-32, which will include implementing instructions for a rehabilitation program, is being developed by this Headquarters. Currently the 935th and 98th Medical Detachments (Psychiatric Service) at Long Binh and Da Nang respectively provide treatment for hard drug users. In addition, USARV Letter Subject: Medical Technical Guidance, Drug Abuse, outlines medical treatment for drug abusers in Vietnam. Development of a facility for a long term, sustained rehabilitation effort within this command is not in consonance with USARV's mission, nor with the current personnel rotation policy. Recommend Department of the Army develop a rehabilitation center where the narcotic and dangerous drug addict may be sent for long term rehabilitation. Unit has been so advised.
e. Reference item concerning "PSP Pads," page 12, paragraph 2c. This situation was discussed in an October issue of the Aviation Weekly Summary. The FSN for non-skid paint was included. Unit has been so advised.

FOR THE COMMANDER:

Clark W. Stevens Jr.
Captain AGC
Assistant Adjutant General

Cy furn:
1st Avn Bde
145th Avn Bn
GPOP-DT (12 Aug 70) 5th Ind (U)
SUBJECT: Operational Report of HQ, 145th Aviation Battalion (Cbt) for
Period Ending 31 July 1970, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558

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

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

[Signature]

L.M. O'KANE
CPT, AGO
Asst AG
145th AVIATION BATTALION (COMBAT)
ORGANIZATION
31 July 1970

The 391st QM Det is located at APO 96376, the 334th Avn Co (Atk Hel) is located at APO 96289, all other units are located at Bien Hoa Air Base, Vietnam, APO 96227.

---

Assigned
Attached
145th Aviation Battalion (Combat)
31 July 1970
Unit Strength

<table>
<thead>
<tr>
<th>UNIT</th>
<th>OFFICER</th>
<th>WO</th>
<th>EM</th>
<th>TOTAL</th>
<th>VN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AUTH</td>
<td>O/H</td>
<td>AUTH</td>
<td>O/H</td>
<td></td>
</tr>
<tr>
<td>68th Amt</td>
<td>19</td>
<td>16</td>
<td>51</td>
<td>49</td>
<td>288</td>
</tr>
<tr>
<td>118th Amt</td>
<td>19</td>
<td>16</td>
<td>51</td>
<td>48</td>
<td>288</td>
</tr>
<tr>
<td>190th Amt</td>
<td>19</td>
<td>10</td>
<td>51</td>
<td>26</td>
<td>288</td>
</tr>
<tr>
<td>334th Atk</td>
<td>17</td>
<td>19</td>
<td>39</td>
<td>24</td>
<td>254</td>
</tr>
<tr>
<td>HHC</td>
<td>19</td>
<td>21</td>
<td>3</td>
<td>8</td>
<td>108</td>
</tr>
<tr>
<td>Svc Plt</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>430th Med</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>520th Med</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>391st QM</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>324th ASD</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Bn Total</td>
<td>96</td>
<td>84</td>
<td>195</td>
<td>157</td>
<td>1205</td>
</tr>
</tbody>
</table>

CONFIDENTIAL
<table>
<thead>
<tr>
<th></th>
<th>03-58 A</th>
<th>03-58 B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HQN</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>68th Arm Co (Asst Hq)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>118th Arm Co (Asst Hq)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>190th Arm Co (Asst Hq)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>324th Arm Co (Asst Hq)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTALS</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
# 145th Aviation Battalion (Combat)  
**Operational Statistics**  
1 May - 31 July 1970

<table>
<thead>
<tr>
<th>Subordinate Unit</th>
<th>Hours Flown</th>
<th>Sorties Flown</th>
<th>Pax</th>
<th>Cargo Tons</th>
<th>Enemy (KBA)</th>
<th>Structures Dammed</th>
<th>Structures Destroyed</th>
<th>SAMs() Dammed</th>
<th>SAMs() Destroyed</th>
<th>Aircraft Dammed</th>
<th>Aircraft Destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>68th Avn Co (Asslt Hel)</td>
<td>7,532</td>
<td>19,776</td>
<td>41,742</td>
<td>149</td>
<td>0</td>
<td>22</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>118th Avn Co (Asslt Hel)</td>
<td>8,025</td>
<td>23,774</td>
<td>53,964</td>
<td>65</td>
<td>40</td>
<td>32</td>
<td>52</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>190th Avn Co (Asslt Hel)</td>
<td>7,351</td>
<td>19,250</td>
<td>41,497</td>
<td>123</td>
<td>6</td>
<td>26</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>334th Avn Co (Atk Hel)</td>
<td>3,652</td>
<td>6,015</td>
<td>369</td>
<td>23</td>
<td>342</td>
<td>81</td>
<td>279</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>HHC, 145th Avn Bn (Obt)</td>
<td>727</td>
<td>2,451</td>
<td>386</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Battalion Totals</td>
<td>27,587</td>
<td>71,366</td>
<td>138,458</td>
<td>374</td>
<td>388</td>
<td>161</td>
<td>378</td>
<td>2</td>
<td>4</td>
<td>14</td>
<td>6</td>
</tr>
</tbody>
</table>
Operational Report - Lessons Learned, HQ, 145th Aviation Battalion

Experiences of unit engaged in counterinsurgency operations 1 May to 31 July 1970

CO, 145th Aviation Battalion

- 2 August 1970

- N/A

N/A

N/A