<table>
<thead>
<tr>
<th>UNCLASSIFIED</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>AD NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD514528</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>FROM:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>AUTHORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGO ltr 29 Apr 1980 ; AGO ltr 29 Apr 1980</td>
</tr>
</tbody>
</table>
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.
SUBJECT: Operational Report Lessons Learned, Headquarters, 222d Aviation Battalion

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 insure 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:

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

1 Incl as

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 Civil Affairs School
US Army Combat Surveillance School
US Army Electronic Warfare School
US Army Engineer School
US Army Field Artillery School
US Army Infantry School

Regraded unclassified when separated from classified inclosure.
DISTRIBUTION (Cont'd)
US Army Ordnance School
US Army Signal School
US Army Southeastern Signal School
US Army Transportation School

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 Construction Engineering Research Laboratory
US Army Limited War Laboratory
US Army Logistics, Doctrine Systems & Readiness Agency
US Army Aviation Test Activity
US Army Mobility Equipment Research & Development Center
SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat)
for Period Ending 31 July 1970 RCS CSFOR-65 (R2)(U)

1. (C) Sectional Operations: Significant Activities
   a. Mission: The mission of the battalion remained the same throughout
      the reporting period, that of providing combat and combat support with aviation
      assets to the United States and other Free World Forces in the Republic of Vietnam.
   b. Organization: The organization of the battalion remained the same
      throughout the reporting period. Several MTOE changes were received for assigned
      and attached units. These changes constituted only minor and insignificant
      equipment authorizations. (See Incl 1 for organization structure.)
   c. Significant Personnel Changes:
      (1) S-1, 222d Aviation Battalion (Combat)
      Date: 1 June 1970
      Outgoing: SKIDMORE, George A., CPT, 528-48-1642
      Incoming: DULCAMARA, Peter B., CPT, 362-40-8177
      (2) S-3, 222d Aviation Battalion (Combat)
      Date: 1 April 1970
      Outgoing: HUGHES, Douglas L., MAJ, 060-34-5111
      Incoming: DOUTHITT, Thomas L., CPT, 509-48-5769
      (3) S-3, 222d Aviation Battalion (Combat)
      Date: 18 June 1970
      Outgoing: DOUTHITT, Thomas L., CPT, 509-48-5769
      Incoming: FERNANDEZ, Walter E., MAJ, 111-24-3803
CONFIDENTIAL

AVBAC-EC

SUBJECT: Operational Report – Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RGS CSFOR-65 (R2)(U)

(4) S-4, 222d Aviation Battalion (Combat)

Date: 2 May 1970
Outgoing: NICKERSON, Charles E., CPT, 222-03-6116
Incoming: SNYDER, Richard L., CPT, 212-46-0340

(5) Aircraft Maintenance, 222d Aviation Battalion (Combat)

Date: 22 July 1970
Outgoing: WUJER, Stanley J., CW3, 507-38-4460
Incoming: DAVIS, Joseph P., CPT, 429-76-9980

(6) CO, HHC, 222d Aviation Battalion (Combat)

Date: 6 April 1970
Outgoing: RIDEOUT, Franklyn E., CPT, 046-30-0259
Incoming: LEE, Stephen D., CPT, 454-70-7254

(7) CO, 117th Aviation Company (Ass't Hel)

Date: 9 June 1970
Outgoing: HUSTON, Richard J., MAJ, 279-26-8229
Incoming: FREEMAN, Bobby H., MAJ, 406-38-3446

(8) CO, 195th Aviation Company (Ass't Hel)

Date: 1 July 1970
Outgoing: TERRY, Thomas J., MAJ, 521-44-3765
Incoming: GASKINS, Philip W., MAJ, 267-50-0627

(9) CO, 273rd Aviation Company (Hvy Hel)

Date: 5 May 1970
Outgoing: SILVA, Warren R., MAJ, 019-26-2073
Incoming: BARTLETT, William, MAJ, 023-26-6595

INCL 2

CONFIDENTIAL
SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFOR-65 (R2)(U)

d. Unit Strength as of 31 July 1970:

(1) Military

<table>
<thead>
<tr>
<th>Subordinate Unit</th>
<th>Officer Auth</th>
<th>Officer Act</th>
<th>Warrant Auth</th>
<th>Warrant Act</th>
<th>Enlisted Auth</th>
<th>Enlisted Act</th>
<th>Total Auth</th>
<th>Total Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHC</td>
<td>19</td>
<td>16</td>
<td>3</td>
<td>8</td>
<td>85</td>
<td>116</td>
<td>107</td>
<td>140</td>
</tr>
<tr>
<td>117th</td>
<td>19</td>
<td>19</td>
<td>51</td>
<td>44</td>
<td>218</td>
<td>188</td>
<td>288</td>
<td>251</td>
</tr>
<tr>
<td>195th</td>
<td>19</td>
<td>18</td>
<td>51</td>
<td>45</td>
<td>218</td>
<td>190</td>
<td>288</td>
<td>253</td>
</tr>
<tr>
<td>240th</td>
<td>19</td>
<td>20</td>
<td>51</td>
<td>43</td>
<td>218</td>
<td>188</td>
<td>288</td>
<td>251</td>
</tr>
<tr>
<td>273rd</td>
<td>21</td>
<td>6</td>
<td>22</td>
<td>15</td>
<td>172</td>
<td>159</td>
<td>215</td>
<td>180</td>
</tr>
<tr>
<td>93rd Med</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>772d Med</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>87th QM</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

(2) Civilians

<table>
<thead>
<tr>
<th>Subordinate Unit</th>
<th>DAC Auth</th>
<th>DAC Act</th>
<th>VN Auth</th>
<th>VN Act</th>
<th>3rd Nat'l Auth</th>
<th>3rd Nat'l Act</th>
<th>Tech Rep Auth</th>
<th>Tech Rep Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHC</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>117th</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>195th</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>240th</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>273rd</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>93rd Med</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>772d Med</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

INCL

3

CONFIDENTIAL
AVDlCA-EC
15 August 1970
SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFOR-65 (K2)(U)

e. Aircraft Status as of 31 July 1970: (See Incl 2)

f. Operational Results for the Period are Included in Incl 3.

g. Awards and Decorations: Awards recommended and received by individuals of this Battalion during 1 May 1970 and 31 July 1970 as indicated below.

<table>
<thead>
<tr>
<th>Award</th>
<th># Recommendations</th>
<th># Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legion of Merit</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Silver Star Medal</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Soldier's Medal</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Distinguished Flying Cross</td>
<td>58</td>
<td>46</td>
</tr>
<tr>
<td>Bronze Star &quot;Valor&quot;</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Bronze Star Medal</td>
<td>118</td>
<td>107</td>
</tr>
<tr>
<td>Air Medal &quot;Valor&quot;</td>
<td>72</td>
<td>56</td>
</tr>
<tr>
<td>Basic Air Medal</td>
<td>184</td>
<td>172</td>
</tr>
<tr>
<td>Subsequent Awards to the Air Medal</td>
<td>193</td>
<td>103</td>
</tr>
<tr>
<td>Army Commendation Medal &quot;Valor&quot;</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Army Commendation Medal</td>
<td>314</td>
<td>244</td>
</tr>
<tr>
<td>Purple Heart</td>
<td>18</td>
<td>28</td>
</tr>
</tbody>
</table>

h. Personnel Gains and Losses During the Period: The following reflects the personnel gains and losses experienced during the reporting period.

<table>
<thead>
<tr>
<th>Officers</th>
<th>Gains</th>
<th>Losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warrant Officers</td>
<td>48</td>
<td>64</td>
</tr>
<tr>
<td>Enlisted Men</td>
<td>286</td>
<td>273</td>
</tr>
</tbody>
</table>

4
CONFIDENTIAL
15 August 1970

SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CFSPOR-65 (R2)(U)

1. R & R Data: Quotas received and filled as indicated below:

<table>
<thead>
<tr>
<th>SITE</th>
<th>Quotas Received</th>
<th>Quotas Filled</th>
<th>Stand By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii</td>
<td>73</td>
<td>56</td>
<td>1</td>
</tr>
<tr>
<td>Sydney</td>
<td>53</td>
<td>53</td>
<td>0</td>
</tr>
<tr>
<td>Tokyo</td>
<td>18</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>25</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Taipei</td>
<td>18</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Manila</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Bangkok</td>
<td>33</td>
<td>18</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Casualty Information: Casualties experienced during the reporting period are as follows:

   (1) Injured-Non Hostile
   (2) Wounded in Action
   (3) Killed-Non Hostile
   (4) Killed in Action
   (5) Missing in Action

*** HONOR ROLL ***


SPANGLER, John F., SP/4, 274-46-4929, killed in action on 8 July 1970, 117th Aviation Company (Aslt Hel)

THOMPSON, Donald B., WD1, 433-32-0300, killed in action on 8 July 1970, 117th Aviation Company (Aslt Hel)
HONOR ROLL (cont'd)

HIGGINBOTTOM, Michael J., SP/4, 449-90-6785, killed in action on 8 June 1970, 195th Aviation Company (Ass't Hel)

k. Enemy Action Against Bearcat: The following is a synopsis of enemy action against Bearcat during the reporting period.

(1) On 281201 June 1970, Bearcat received ten (10) 107mm rockets impacting inside the perimeter. All rounds impacted in the Royal Thai Volunteer area. The attack lasted approximately five (5) minutes.

(2) On 281359 June 1970, Bearcat received two (2) 107mm rockets inside the perimeter. One (1) 107mm rocket impacted in close proximity to revetted helicopters of the 240th Aviation Company (Ass't Hel) causing moderate damage to one (1) UH-1C helicopter and minor damage to one (1) UH-1C helicopter. There were no U.S. personnel injured in the attack and there were no structures damaged in the Battalion Area. The attack lasted approximately one (1) minute.

1. Ammunition Expenditures: (See Incl 4)

m. Schooling (AARTS Courses): The following quotas were received and filled during the reporting period:

(1) Officers
   (a) UH-1 IP School 11
   (b) OH-58A Transition 1
   (c) Aviation Accident Prevention 2
   (d) POL and Ammo Handlers 7

(2) Enlisted
   (a) UH-1C Armament Course 11
   (b) Tech Supply (PLL) 3
   (c) POL and Ammo Handlers 24
CONFIDENTIAL

15 August 1970

SUDJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFOR-65 (R2)(U)

n. Aviation Safety: Six (6) aircraft accidents occurred during the reporting period while flying 26,003 hours. This gave the battalion an accident rate of 23.2 per 100,000 hours which is a 6.0 per 100,000 hour increase over the last period.

(1) On 7 May 1970 a UH-1H was on climb out from a field position. At 400 feet AGL and 60 knots airspeed the engine failed. Aircraft Commander autorotated to an area which was on a 10° slope. The aircraft rolled on its right side and sustained major damage. Cause of engine failure was disintegration of the fourth stage compressor disc.

(2) On 20 May 1970 a UH-1H was on a night test flight for completion of a Periodic Inspection. During the N1 topping check an explosion was heard followed by a loss of power. Autorotation was made to rough terrain and the aircraft sustained major damage. Cause of this accident was failure of the fourth stage compressor disc.

(3) On 5 June 1970 a UH-1C attempted to take off from a field position where field elevation was 1300 feet, DA at +3200 feet and a full fuel load and full armament. RPM was lost during the take off and the aircraft crashed. Major damage was sustained to the entire aircraft. Cause: exceeding aircraft limitations for climatic conditions.

(4) On 16 June 1970 a UH-1C on a night mission experienced #1 hydraulics failure. A precautionary landing was initiated. On short final just prior to touchdown the tail rotor controls locked causing the aircraft to turn right when power was applied for touchdown. The aircraft touched down 30° to runway heading and slid into a ditch. Major damage was sustained to the entire aircraft. Cause: locked pedal condition is unknown.

(5) On 16 July 1970 a UH-1H was preparing for take-off from a hover when the aircraft rolled on its right side and sustained major damage to the entire aircraft. Cause was loss of cyclic control.

(6) On 22 July 1970 a UH-1C was performing a night rocket run on a suspected enemy position. Engine failed while on right break. Autorotation was made to open rice paddy. On touchdown the skids hit a rice dike causing the aircraft to land extremely hard on the heels of the skids. Major damage was incurred to the skids, cross tubes and tail boom. Cause of engine failure was disintegration of the fourth stage compressor disc.

CONFIDENTIAL
SUBJECT: Operation Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RGS CSFCR-65 (R2)(U)

 Chaplain's Activities: Opportunities for troops to worship and for troops to come in contact with the chaplain and religious activities continue to be emphasized this quarter. There were 206 Catholic and Protestant opportunities for worship and 1413 visits to troop areas as well as 23 visits to the hospitals and stockade.

(1) Men took advantage of counseling services 209 times during the period.

(2) As required, all replacement and rotating enlisted personnel are oriented and interviewed by the chaplain.

(3) Lay Protestant study groups in the Bearcat, Long Than and Long Binh areas continue to be a firm foundation for the spiritual life of the men who attend.

(4) The use of religious films by the laymen in the company areas continue to draw interest of the men.

(5) Character Guidance classes are presented by the chaplain. Attendance remains above 90% present for duty strength.

(6) Memorial services were conducted for the 195th and 117th Aviation Companies (Airl Hel).

(7) Continuing to assist the education program after helping to establish the Education Center in Bearcat, the chaplain introduced 3 men to the University of Maryland extension resident program and is recruiting men interested in the high School GED program.

The Public Information Office: The Public Information Office continued to provide the required news and photo coverage of awards and decorations, safety, special events, civic affairs activities, and combat actions. Both local and national news media were used in publicizing the battalion activities during the last reporting period. The May-July period produced 199 hometown releases as compared with 317 for the previous period. The decline is attributed to the fact that releases are no longer acceptable for new arrivals in RVN. Approximately 10 news releases and feature stories were released by the Battalion Information Office to 12th Aviation Group and 1st Aviation Brigade and several were published in papers in Vietnam and the United States. Approximately 1,000 photographs, including awards and decorations, promotions, changes of command, accident safety and normal news photos were produced during the period.
AVABAG-EC

SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CORP-65 (K2)(U)

q. Operations:

(1) General: Daily support of operations was continued by this Battalion during the reporting period. The Battalion supported combat assault, direct support and other than combat support type missions. Missions included airlift of men, equipment, supplies, vehicular airlift, administrative, command and control, artillery weapons and engineer equipment displacement. Night support was provided by Night Hawk type missions and was utilized for route, zone, and area reconnaissance and surveillance, FZ lighting for dust/off operations and for close-in fire support of troops in contact. The Battalion Mission Profile remained at 36 UH-1H helicopters and 12 UH-1C gunships. The daily commitment of three (3) CH-54A helicopters for support of III and IV Military Regions remained as such throughout the reporting period, except during the Cambodian Operation, wherein the daily commitment was ten (10).

(2) Thai Aviators: Under the provisions of the Memorandum of Understanding between the Commanding General, Royal Thai Forces, Vietnam, and the Commanding General, 1st Aviation Brigade, the Battalion checked out six (6) Thai aviators in the UH-1C helicopter gunship. Ground school was three (3) days in duration and flight instruction consisted of twenty-two hours and thirty minutes (22:30). Of the total flight time involved, each aviator received twenty (20) combat hours, participating in combat assault missions with the 240th and 195th Aviation Companies (Aslt Hel).

(3) Thai Armorers: During the reporting period, the Battalion assumed the mission of training six (6) Thai enlisted men and officers as Aircraft Armament Repairmen. The classes were one (1) week in duration of which three (3) days were utilized as an on-the-job-training period. The OJT period was spent with the armorms of the 240th Aviation Company (Aslt Hel). The former training of the selected artificers greatly enhanced the instruction presented and led to easier comprehension of the inherent faults on the armament subsystems.

2. (c) SECTION 2-LESSONS LEARNED: COMMANDER'S OBSERVATIONS, EVALUATIONS, AND RECOMMENDATIONS:

a. Personnel:

(1) Avionics Trained Personnel:

(a) OBSERVATION: This headquarters has none and is not authorized avionics trained personnel. Presently staff supervision is solely the responsibility of the Battalion Signal Officer, a slot that requires a rated aviator.
SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 ROS C3P0R-65 (R2)(U)

(b) EVALUATION: This headquarters does not have the capability of providing adequate staff supervision and assistance to its avionics facilities due to the fact that none of the personnel assigned to the Battalion Signal Section have an avionics background. A full-time avionics staff member is needed to oversee the utilization of avionics assets, shop supervision, maintenance procedures and provide assistance and recommendations of avionics problems from battalion level.

(c) RECOMMENDATION: Recommend that MTOE/TOE changes be effected to authorize a 35P40 to the Battalion Signal Section and/or a Warrant Officer MOS 286A for duty as Assistant Signal Officer.

(d) COMMAND ACTION: On-the-job-training is in effect at this headquarters but is considered inadequate for doing the job properly.

(2) S-5 Staff

(a) OBSERVATION: An authorized Civic Action Staff is required at Battalion level.

(b) EVALUATION: The success of Civic Action Programs is a proven operation. Through these programs, we can help the people of Vietnam help themselves and enhance relations between the United States and the Republic of Vietnam. Because of a shortage of Civil Affairs Companies, a Civic Actions Staff should be authorized at Battalion level. This staff should consist of one (1) Officer, three (3) Enlisted men and one (1) interpreter.

(c) RECOMMENDATION: That a change to the present MTOE be made to include: one (1) S-5 Officer, one (1) Non-commissioned Officer, two (2) Enlisted Men and one (1) interpreter.

(d) COMMAND ACTION: Request for change in the MTOE has been submitted.

b. Intelligence:

(1) OBSERVATION: This headquarters is authorized separate teletype assets which are components from vans and are presently dismounted AN/VSC-2 assemblages, operating as fixed communications, which do not meet the prerequisites of DA CIR 300-175-1, Defense Communications Agency Red/Black criteria.

(2) EVALUATION: Dismounted communication assemblages are generally utilized without the use of the power filters that are inherent in most assemblages. When this teletype equipment is operated without the necessary filters they produce tempest violations which are not conducive to communications security.
15 August 1970

SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFOR-65 (R2)(U)

(3) RECOMMENDATION: That the Army develop a tactical power filter which would become part of each teletype keying device or that a tactical filter be developed for issue to prevent tempest hazards on tactical teletype equipment.

(4) COMMAND ACTION: This headquarters is in the process of locating enough filters to put on its dismounted equipment. This communication problem has been referred to higher headquarters.

c. Operations:

(1) Failure of FM Set AN/ARC-54

(a) OBSERVATION: This command has experienced numerous operational failures of the airborne FM Set AN/ARC-54.

(b) EVALUATION: Failures of the AN/ARC-54 airborne FM seem to be a result of weak or inoperative tubes in the power amplifier module. Power amplifier module failure is primarily due to aviators and observers not allowing the radio sufficient warm-up time before keying the set.

(c) RECOMMENDATION: That circuitry be added to this assemblage to prevent keying of the set until all components have reached safe, normal operating temperature.

(d) COMMAND ACTION: This headquarters has submitted an EIR on the equipment. In addition, subordinate units have been directed to allow all aircraft radios a two (2) minute warm-up period, prior to effecting transmissions.

(2) Duplication of Civil Action Efforts:

(a) OBSERVATION: That units assigned to different battalions are participating in civic action projects in near proximity to one another.

(b) EVALUATION: U.S. units are adopting civic action projects without knowledge of other units adopting the same projects. This poses a problem, in that units are duplicating support to orphanages and the end result is excessive support for one institution and neglect for others. A lack of proper coordination could prevent this error.

(c) RECOMMENDATION: That units participating in civic action projects effect proper coordination with the local District Senior Advisor, certifying
that a project under consideration will not be duplication of effort.

(a) COMMAND ACTION: Directives from this headquarters have been published to ascertain that a need does exist before a unit assumes a civic action project. Further checks are made during staff assistance visits to insure that units are effecting proper coordination.

(3) Procurement and Handling of Potable Water

(a) OBSERVATION: The procurement and handling of potable water for the operation of the consolidated mess and for providing adequate water to maintain a high standard of sanitation and personal hygiene.

(b) EVALUATION: Headquarters and Headquarters Company is authorized one (1) 400 gallon water trailer, which is not on hand. Pacific Architects and Engineers have been awarded a contract to supply an adequate amount of water to the elements of this unit located at Camp Martin Cox, but are unable to meet the requirement due to lack of equipment.

(c) RECOMMENDATION: That Headquarters and Headquarters Company TO&E be modified to include two (2) tank trucks so that the unit can be self supporting in the event of a unit movement or deployment.

(d) COMMAND ACTION: The unit has hand-receipted two (2) POL tankers from a sister unit and converted them to potable water tankers. A unit TO&E modification is being submitted.

(4) Minimum Safe Clearances

(a) OBSERVATION: The Nha Be Naval facility was constructed with less than minimum safe clearances for operation of UH-1 aircraft.

(b) EVALUATION: Aircraft parked in POL on the transient pads and in the revetments have at the maximum, one half a rotor disc clearance from other aircraft.

(c) RECOMMENDATION: That instead of having three (3) POL points located close together, eliminate one (1) point and have two (2) refuel points with adequate clearance. Reduce the number of transient pads and revetments to allow sufficient clearance between aircraft.
CONFIDENTIAL

AVBACG-EC

15 August 1970

SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFOR-65 (R2)(U)

(d) COMMAND ACTION: The existing dangers and above recommendations have been brought to the attention of the naval personnel at Mhn Be Naval Facility. Aviators of this unit have been instructed to use every other revetment for working, and exercise extreme caution during refueling operations.

(e) Observation of KAL 55B:

(a) OBSERVATION: This command is utilizing the KAL 55B Aviators KIC wheel. The wheel itself is an immeasurable asset for aviation supported operations. However, there are too many sundry codes in use and not enough wheels are available for issue on a one per aircraft basis.

(b) EVALUATION: The KAL 55B aviators wheel is a definite asset in working with units which do not have secure voice capabilities. However, each Regiment, Brigade or Group size unit publishes its own code and aviators are sometimes saddled with carrying 3 or 4 codes to accomplish adequate coordination. Also these wheels are in very short supply and full utilization cannot be realized.

(c) RECOMMENDATION: Recommend that only four (4) codes be authorized for the KAL 55B, Vietnam-wide, on a one per Military Region Basis. This will reduce the number of codes the aviator has to carry and allow him to encrypt coordinates, frequencies, etc for any supported unit in a Military Region.

(d) COMMAND ACTION: This command has referred this problem to higher headquarters.

Clement A. Wyllie

LTC, TC

Commanding

5 Incl

(1) Organization
(2) Aircraft Status
(3) Operational Statistics
(4) Ammunition Expenditures
(5) Reenlistment Statistics

for Period

DISTRIBUTION

6 Commanding Officer, 12th Aviation Group (Obl), ATTN: AVBAC-G-EC, APO 96266
2 SINCUSARPAO, ATTN: GPO-P, APO 96558
3 Commanding General, USAF, ATTN: AVBAC-DST, APO 96375
2 Commanding General, 1st Aviation Brigade, ATTN: AVBACG-O, APO 96384
2 USARPAO, ATTN: GPO-P, APO 96558
CONFIDENTIAL

AVMCA-SC (13 Aug 70) 1st Ind
SUBJECT: Operational Report-Lessons Learned, 222d Aviation Battalion
(Combat) for the Period Ending 31 July 1970 RCS CSFOR-45 (R2) (U)

DA, HEADQUARTERS, 12TH AVIATION GROUP (COMBAT), APO 92666 2 Sep 70
THRU: Commanding General, II Field Force Vietnam, APO 92666
    Commanding General, 1st Aviation Brigade, ATTN: AVMCA-C, APO 92324
    Commanding General, US Army Vietnam, ATTN: AVMOC-(DST), APO 92375
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,
   222d Aviation Battalion (Combat).

2. (C) The following additional comments are provided:

   a. Reference: page 10, para 2a(1), para 11, para 2a(2), and para 12,
      para 2c(3), all battalion headquarters within 12th Aviation Group (Combat)
      are organized under the same TOE. USARV is requiring all 12th Group units
      to submit detailed MTOE's with recommended changes during the present re-
      porting period. Without accompanying tradeoff positions and/or substantial
      justification, additional TOE slots will be disapproved. The unit will be
      requested to submit requested recommended personnel and equipment changes
      which will be considered for submission with MTOE.

   b. Reference: page 11, para 2c(2), "Duplication of Civic Action
      Efforts". Coordination has been effected between the 222d Avn Bn (Cbt)
      and the 210th Avn Bn (Cbt) to eliminate the duplicated effort.

   c. Reference: page 10, para 2b, Intelligence. The AM/VSC-2 is
      tactical communications equipment whether mounted or dismounted and as
      such is not required to meet red/black criteria as described in DA
      Cir 300-175-1. The power filter required for the AM/VSC-2 is not available
      in country for issue. A red/black survey and assistance in lowering the
      tempest hazards has been requested from the 3d Platoon, 101st Radio Research
      Company.

   d. Reference: page 13, para 2e(5), "Utilization of Kal 55B". 12th
      Avn Gp (Cbt) has requested universal KAC wheels which will be common to all
      units. Arrival of these items is expected in early September.

   (Signature)
   COLONEL, INFANTRY
   Commanding
AVFBC-RE (15 Aug 70) 2nd Ind

SUBJECT: Operational Report - Lessons Learned of 222nd Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFOR-65 (R2) (U)

DA, 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: AVHEC-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 the 222d Aviation Battalion (Combat) and concurs with the comments of the indorsing headquarters.

2. (C) Comments follow: Reference item concerning "Utilization of KAL 55B", page 13, paragraph 2c(5). The recommendation is reasonable, but not administratively practical. Experience indicates that frequency of compromise versus time necessary to afford replacement issue to so many holders negates the obvious convenience of limiting editions to four. Further, single edition for such a large number of holders would reduce security by multiplying daily encryptions beyond rated capacity of system.

FOR THE COMMANDER:

W. C. BARTEL
CPT, AGC
Asst AG
AVBACC-0 (15 Aug 70) 24 Ind

SUBJECT: Operational Report - Lessons Learned, 222d Aviation Battalion (Combat), for Period Ending 31 July 1970, RCS CSFOR-65 (R2) (U)

DA, HEADQUARTERS, 1ST AVIATION BRIGADE, APO 96374 16 SEP 1970

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

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

2. The following additional comment is considered pertinent: Paragraph 2c(4), page 12, refers to the lack of minimum safe clearances for UH-1 helicopters at the Nha Be Naval facility, RVN, PCL refueling points. Concur. This headquarters has requested that USAVY Aviation Safety investigate the facts and circumstances surrounding helicopter operations at this facility.

FOR THE COMMANDER:

[Signature]

WARREN A. PETERSON
CPT, AGC
ASST AG
AVHDU-DD (15 Aug 70) 4th Ind
SUBJECT: Operational Report-Lessons Learned, 222d Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSFDH-65 (RZ)(U)
Headquarters, United States Army Vietnam, APO San Francisco 96375 4 DEC 1970
TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-DT, APO 96558

1. This Headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1970 from Headquarters, 222d Aviation Battalion (Combat) and comments of indorsing headquarters.

2. Comments follow:

   a. Reference item concerning "Avionics Trained Personnel," page 9, paragraph 2a(1). Unit should submit MTOE/TOE change in accordance with AR 310-31 or AR 310-49. Unit has been so advised.

   b. Reference item concerning "S-5 Staff," page 10, paragraph 2a(2). The recommendation that an S-5 staff be authorized at a battalion level does not appear to have adequate justification to warrant approval. Should the unit decide to submit a MTOE change, it must include complete justification in accordance with AR 310-49 and provide suitable trade-off spaces as strength increases cannot be supported by USARV. Unit has been so advised.

   c. Reference item concerning "Intelligence," page 10, paragraph 2b, 1st Indorsement, paragraph 2c: nonconcurs. The principles of DA Circular 300-175-1 are applicable to dismounted communications assemblages even though all RED/BLACK standards outlined therein cannot be fully met. Since no other document is published to provide RED/BLACK criteria for tactical assemblages, the principles set forth in DA Circular 300-175-1, together with sound judgment of technically qualified inspectors, are the only means of minimizing the TEMPEST hazards. Unit has been so advised.

   d. Reference item concerning "Failure of FM Set AN/ARC-54," page 11, paragraph 2c(1). The AN/ARC-54 is now standard B. The problem can be corrected through education of flight crews to allow sets to warm-up before transmitting. The two minute warm-up period directed in Command Action is considered adequate. Unit has been so advised.

   e. Reference item concerning "Procurement and Handling of Potable Water," page 12, paragraph 2c(3). The recommendation appears appropriate. Unit should take action in accordance with AR 310-31. Unit has been so advised.
f. Reference item concerning "Minimum Safe Clearances," page 12, paragraph 2c(4). USARV Aviation has contacted the Facility Safety Officer at Nha Be. The spacing between POL refuel points will be extended to the minimum safe distance required and PSP surfaces will be painted with non-skid paint. This Headquarters will be advised when the above actions have been completed. Unit has been so advised.

g. Reference item concerning "Utilization of KAL 55B," page 13, paragraph 2c(5). This Headquarters is taking action to reduce the number of different KAC-800 series codes in use by Army units. On 21 September 1970, a message was dispatched to major subordinate commands addressing the problem of excessive KAC-800 series code systems. Responses from units are favorable and a significant reduction of systems is anticipated. This will not affect the systems held by separate brigades, divisions, and field forces. Unit has been so advised.

FOR THE COMMANDER:

[Signature]

Cy furn:
1st Avn Bde
222d Avn Bn
SUBJECT: Operational Report of HQ, 222d Aviation Battalion (Cbt) for Period Ending 31 July 1970, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558 JAN 1971

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:

L.M. OZAKI
CPT. AGC
Asst AG
CONFIDENTIAL

AVBACA-EC

15 August 1970

SUBJECT: Operational Report - Lessons Learned, 222 Aviation Battalion (Combat) for Period Ending 31 July 1970 RCS CSPOH-65 (R2)(U)

ORGANIZATION

222D AVIATION BATTALION (COMBAT)
   Headquarters Company, 222d Aviation Battalion (Combat)
   87th Quartermaster Detachment
   315th Aviation Detachment (Divisional)
   772d Medical Detachment (OA)
   117th Aviation Company (Asslt Hel)
   195th Aviation Company (Asslt Hel)
   93d Medical Detachment (OA)
   240th Aviation Company (Asslt Hel)
   273rd Assault Support Helicopter Company (ASHC) (Hvy)

Incl 1

CONFIDENTIAL
INCL 2 to 222D AVIATION BATTALION (COMBAT) ORLI dtd 15 AUG 1970

<table>
<thead>
<tr>
<th></th>
<th>UH-1C</th>
<th>UH-1D/H</th>
<th>CH-54A</th>
<th>OH-58A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Auth</td>
<td>Asgd</td>
<td>Auth</td>
<td>Asgd</td>
</tr>
<tr>
<td>HHC, 222d Avn Bn (Cbt)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>117th Avn Co (Aslt Hel)</td>
<td>8</td>
<td>4</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>195th Avn Co (Aslt Hel)</td>
<td>8</td>
<td>6</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>240th Avn Co (Aslt Hel)</td>
<td>8</td>
<td>5</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>273rd Avn Co (Hvy Hel)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
INCL 3 to 222d Aviation Battalion (Combat) ORLL dtd 15 Aug 1970

<table>
<thead>
<tr>
<th>Subordinate Units</th>
<th>Sorties Flown</th>
<th>Troops Lifted</th>
<th>Cargo Tons Lifted</th>
<th>Enemy KBA</th>
<th>Structures DAM/DEST</th>
<th>Sammans DAM/DEST</th>
<th>Acft Lost</th>
<th>Acft DAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHC</td>
<td>559</td>
<td>567</td>
<td></td>
<td>9</td>
<td>27/32</td>
<td>1/38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>117th Avn Co</td>
<td>21382</td>
<td>24934</td>
<td>164</td>
<td>1</td>
<td>32/23</td>
<td>0/0</td>
<td>2*2**</td>
<td>10*8**</td>
</tr>
<tr>
<td>195th Avn Co</td>
<td>22820</td>
<td>27511</td>
<td>125</td>
<td>58</td>
<td>19/62</td>
<td>7/30</td>
<td>1*1**</td>
<td>12*1**</td>
</tr>
<tr>
<td>240th Avn Co</td>
<td>30525</td>
<td>48813</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>273rd Avn Co</td>
<td>3138</td>
<td>0</td>
<td>9184</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**UH-1H
**UH-1C
***CH-54A
INCL 4 to 222D AVIATION BATTALION (COMBAT) ORLJ dtd 15 Aug 1970

AMMUNITION EXPENDITURES FOR PERIOD 1 MAY to 31 JULY 1970

<table>
<thead>
<tr>
<th>Unit</th>
<th>7.62</th>
<th>5.56</th>
<th>40mm</th>
<th>2.75 RKT</th>
<th>50Cal</th>
</tr>
</thead>
<tbody>
<tr>
<td>117th</td>
<td>225,000 rds</td>
<td>0</td>
<td>0</td>
<td>1,200 rds</td>
<td>10,200 rds</td>
</tr>
<tr>
<td>195th</td>
<td>106,500 rds</td>
<td>5,880 rds</td>
<td>84 rds</td>
<td>1,696 rds</td>
<td></td>
</tr>
<tr>
<td>240th</td>
<td>697,000 rds</td>
<td>5,656 rds</td>
<td>0</td>
<td>6,291 rds</td>
<td>600 rds</td>
</tr>
<tr>
<td>273rd</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
INCL 5 to 222D AVIATION BATTALION (COMBAT) ORIL dtd 15 Aug 1970

1 May—31 July 1970

<table>
<thead>
<tr>
<th>Unit</th>
<th>RA &amp; AUS Elig</th>
<th>RA &amp; AUS Reen</th>
<th>%</th>
<th>RA-Career Elig</th>
<th>RA-Career Reen</th>
<th>%</th>
<th>W/E Reen</th>
<th>Total Reen</th>
</tr>
</thead>
<tbody>
<tr>
<td>117th</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>100</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>195th</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>100</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>240th</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>273rd</td>
<td>12</td>
<td>1</td>
<td>8.3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>HHC</td>
<td>10</td>
<td>1</td>
<td>10.0</td>
<td>1</td>
<td>1</td>
<td>100</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>222D AVN BN</td>
<td>49</td>
<td>2</td>
<td>4.9</td>
<td>3</td>
<td>3</td>
<td>100</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
Operational Report - Lessons Learned, HQ, 222d Aviation Battalion

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

CO, 222d Aviation Battalion

15 August 1970

703265

N/A

N/A

DA, OACSFOR, Washington, D.C. 20310