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<thead>
<tr>
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<tbody>
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<td><strong>AD NUMBER</strong></td>
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<tr>
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<td><strong>FROM:</strong></td>
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<tr>
<td><strong>AUTHORITY</strong></td>
</tr>
<tr>
<td>AGO D/A ltr, 26 Aug 1975; AGO D/A ltr, 26 Aug 1975</td>
</tr>
</tbody>
</table>

THIS PAGE IS UNCLASSIFIED
SUBJECT: Lessons Learned, Headquarters, 16th Aviation

1. Subject report is forwarded for review and evaluation in accordance with paragraph 4C, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, within 90 days of receipt of covering letter.

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

BY ORDER OF THE SECRETARY OF THE ARMY:

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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  16th Aviation Group
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DEPARTMENT OF THE ARMY
HEADQUARTERS, 16TH AVIATION GROUP (COMBAT)
AFO San Francisco 96374

SUBJECT: Operational Report - Lessons Learned (16th Aviation Group (Combat))
Period Ending (31 January 1970) RCS CSFOR-65 (RI)

SEE DISTRIBUTION:

1. (C) SECTION I, OPERATIONS: SIGNIFICANT ACTIVITIES
   a. Command
      (1) Mission: The 16th Aviation Group (Combat) provides, supervises, and sustains Army aviation support of the American Division.
      (2) Responsibilities:
         (a) Command the major aviation elements of the Division.
         (b) Exercise special staff supervision over all Army aviation activities.
         (c) Supervise aircraft maintenance and supply.
         (d) Supervise flying safety program.
         (e) Participate in planning and execution of combat operations.
         (f) Provide Army Aviation Element to the UGCC.
      (3) Key Personnel:
         (a) 16th Avn Cp (Cbt) Headquarters.
            CO: COL Dilbert L. Townsend, 30 Jun 69 to present.
            XO: LTC Raymond V. Brown, 2 Dec 69 to 30 Dec 69.
            LTC Dean G. Boyle, 2 Dec 69 to 30 Dec 69.
            LTC (P) Jerry L. Towmac, 31 Dec 69 to present.

Inclosure

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SUBJECT: Operational Report - Lessons Learned (16th Aviation Group (Combat))
Period Ending (31 January 1970) RCS C5FCR-65 (R1)

MAJ Stanton C. Young, 9 Jan 70 to present.
S2I: LT Carl F. Lehmann, 15 Oct 69 to present.
S3I: LTC Kenneth L. Ketzler, 22 Sep 69 to 30 Dec 69.
    LTC Richard K. Dietzsch, 9 Jan 70 to present.
S4I: MAJ Charles W. Puckh, 1 Jun 69 to 23 Nov 69.
    MAJ Joseph Wolfenberger, 24 Nov 69 to present.

Group Surgeon: MAJ T. David Greer, 27 Dec 69 to 31 Dec 69.
    MAJ James J. Kent, 2 Jan 70 to present.

Safety Officer: MAJ Donald P. Delvaux, 19 May 69 to present.

A
d Div Avn Off: ITC John F. Fresnan, 7 Oct 69 to 2 Jan 70.
    ITC Dean C. Boyle, 9 Jan 70 to present.

(b) Unit Commanders:

143th Avn Bn (Obt): ITC (1) Jerry L. Yeague, 30 Jun 69 to 30 Dec 69.
    ITC Kenneth L. Ketzler, 30 Dec to present.

173rd Avn Bn (Obt): ITC Richard K. Dietzsch, 18 Jul 69 to 2 Jan 70.
    ITC John F. Fresnan, 9 Jan 70 to present.

335th Trans Co: MAJ Ronald E. Baker, 13 Sep 69 to present.

NMC, 16th Avn Gr (Obt): CIT Marvin E. Mitchiner Jr., 1 Sep to present.


b. Personnel, Administration, Morale and Discipline:

(1) Status of authorized and assigned strength as of the last day of the report.

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SUBJECT: Operational Report - Lessons Learned (16th Aviation Group (Combat))
Period Ending (31 January 1970) RCS CSFOR-65 (R2)

(a) Consolidated Strength.

<table>
<thead>
<tr>
<th></th>
<th>AUTHORIZED</th>
<th>ASSIGNED</th>
<th>OFF/P/SHORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>223</td>
<td>214</td>
<td>-9</td>
</tr>
<tr>
<td>WO</td>
<td>345</td>
<td>300</td>
<td>-45</td>
</tr>
<tr>
<td>EN</td>
<td>2417</td>
<td>2282</td>
<td>-135</td>
</tr>
</tbody>
</table>

(b) Consolidated Strength by rated and non-rated officers.

<table>
<thead>
<tr>
<th></th>
<th>RATED//TOTAL</th>
<th>NON-RATED//TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>201 / 183</td>
<td>22 / 31</td>
</tr>
<tr>
<td>WO</td>
<td>336 / 288</td>
<td>9 / 12</td>
</tr>
</tbody>
</table>

(2) Subordinate Unit Strength.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>OFF</th>
<th>WO</th>
<th>EN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHC 16th Avn Gp (Cbt)</td>
<td>26</td>
<td>1</td>
<td>68</td>
<td>95</td>
</tr>
<tr>
<td>14th Avn Bn (Cbt)</td>
<td>111</td>
<td>208</td>
<td>178</td>
<td>1595</td>
</tr>
<tr>
<td>123d Avn Bn (Cbt)</td>
<td>77</td>
<td>132</td>
<td>117</td>
<td>1048</td>
</tr>
<tr>
<td>335th Trans Co</td>
<td>7</td>
<td>236</td>
<td>206</td>
<td>267</td>
</tr>
</tbody>
</table>

(3) Civilian Strength.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>DAC</th>
<th>VFW</th>
<th>3rd NAT</th>
<th>CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>16th Avn Gp (Cbt)</td>
<td>2 / 2</td>
<td>102</td>
<td>0</td>
<td>94 / 85</td>
</tr>
</tbody>
</table>

(a) Discipline.

<table>
<thead>
<tr>
<th>MONTH</th>
<th>1O GD ACT 15</th>
<th>F-G ART 15</th>
<th>SP C-N</th>
<th>TEN C-N</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOV</td>
<td>27</td>
<td>30</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>DEC</td>
<td>27</td>
<td>25</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>JAN</td>
<td>16</td>
<td>18</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

(5) Administration.

(a) Routine administrative procedures were carried on with no difficulties. The message center was open on a full time basis which proved extremely advantageous in smoothing out a former distribution problem.
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SUBJECT: Operational Report - Lessons Learned (16th Aviation Group (Combat))
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(b) A special project of updating all the company TOEs within the 16th Avn Gp (Cbt) was completed. Coordination was made with the American Division G3, and the Adjutant General, Machine Branch, and Personnel Management sections to ensure all MTOS changes were made and properly entered on machine cards. This will ensure that personnel management section is receiving the correct authorizations and that these authorizations will be in consonance with those listed at the company, battalion and Group.

(c) MTOE 55-457E for the 335th Transportation Company has yet to be implemented. Upon receipt of implementation instructions, the MTOE will be put into effect.

(d) The number of Lear Siegler Incorporated personnel authorized remained at 60 during the reporting period. This is a reduction of 18 from the 78 authorized during last reporting period. The reduced number of personnel has not affected the unit due to a reduction in the Maintenance work load.

(6) Morale.

(a) The morale of the unit continues to remain high. A sense of professional pride and accomplishment prevails throughout the unit. This is a direct result of the spirit instilled in the men by their supervisors and their knowledge that they are producing work of an exemplary standard.

(b) With the Group Area Improvement Program progressing steadily, many new additions have been made which have enhanced troop morale.

c. Intelligence and Counterintelligence.

(1) There were three possible security compromises concerning SOL items during the reporting period. One of the possible compromises was due to enemy action.

(2) During the reporting period 130 aircraft of the 16th Avn Gp (Cbt) were hit by enemy ground fire. An analysis of these hits by altitude is reflected below.

<table>
<thead>
<tr>
<th>ALT (FEET)</th>
<th>O/C</th>
<th>T/O</th>
<th>LNDG</th>
<th>ENROUTE</th>
<th>TCT ATTACK</th>
<th>TOTAL BY ALT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100</td>
<td>3</td>
<td>17</td>
<td>27</td>
<td>13</td>
<td>9</td>
<td>69</td>
</tr>
<tr>
<td>100-200</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>200-300</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>300-400</td>
<td>1</td>
<td>2</td>
<td></td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>400-500</td>
<td>2</td>
<td></td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>500-600</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>600-700</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>700-800</td>
<td>1</td>
<td></td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>800-900</td>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>900-1000</td>
<td>1</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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SUBJECT: Operational Report - Lessons Learned (16th Aviation Group (Combat))
Period Ending (31 January 1970) RCS GSPE-65 (RI)

<table>
<thead>
<tr>
<th>ALT (FEET)</th>
<th>O/G</th>
<th>T/O</th>
<th>W/NO</th>
<th>ENGOUT</th>
<th>TOT ATTACK</th>
<th>TOTAL BY ALT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000-1100</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1100-1200</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1200-1300</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1300-1400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400-1500</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>1500-1600</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1600-1700</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1700-1800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800-1900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900-2000</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Over 2000</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>27</td>
<td>130</td>
</tr>
</tbody>
</table>

(3) Summary of antiaircraft activities by type fire.

<table>
<thead>
<tr>
<th>Shot at</th>
<th>Hit</th>
<th>Downed/REx</th>
<th>Downed/Lost</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>227</td>
<td>90</td>
<td>13</td>
<td>3</td>
<td>259</td>
</tr>
<tr>
<td>29</td>
<td>7</td>
<td>5</td>
<td>10</td>
<td>107</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>333</td>
<td>41</td>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>

(4) Throughout the reporting period the northeast monsoon and low cloud cover handicapped operations.

d. Plans, Operations, and Training

(1) Plans:

(a) The 16th Avn Gp (Cbt) continues to provide Army aviation support to the Division.

(b) The 123d Avn Bn (Cbt) in essence has become an air cavalry squadron. The battalion will remain in general support of the Division, and in direct support of the brigades on a mission basis. B Company, will normally support the 11th Infantry Brigade; D Troop, 1st Squadron, 1st Cavalry the 198th Infantry Brigade; and F Troop, 6th Cavalry the 196th Infantry Brigade.

(c) Development of the Night Hawk (NH) system. The NH system consists of an XM7 subsystem (Ninigun) mounted on a firing stand, and a Xenon light parallel mounted with a Night Observation Device (NOD). The system is employed by acquiring a target, which is illuminated by the infra red mode on the Xenon light by viewing the target in the NOD. The target is then illuminated with the white light while the gunner engages the target with the XM7. The following is a sequence of actions taken in the development of the system.

1. On 1 November 1969, a 16th Avn Gp (Cbt) representative

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attended a symposium on the NH system at II Field Force Headquarters at Long Binh.

On 5 November 1969, the 16th Avn Grp (Cbt) Commanding Officer was briefed on the NH system. As a result of this briefing the 16th Aviation Battalion was tasked with the mission of determining the feasibility of employing the NH system in the I Corps Division T.O.

On 22 November 1969, the Division Commander, was briefed on the NH system and approved the development of one NH system.

F Troop, 8th Cavalry of the 123d Aviation Battalion was tasked to operate the NH system.

During December 1969 and January 1970, units were deployed in the I Corps Division to produce the NH system. The time to completion of the first system is 4 February 1970.

(d) B Company, 123d Aviation (Cbt), has made significant revisions in its techniques of employment. The Company has begun utilizing the AH-27 mini-gun kit on the OH-6 aircraft. This allows a team to be employed with one AH-1G and one minigun equipped LOH for fire support. Also included in the team are a low-flying minigun LOH and a flexible number of OH-1H aircraft with Infantry. The advantages of this organization are numerous. The flexibility of this team allows the unit to increase its aircraft availability since valuable blade time on the AH-1G is saved which reduces maintenance time. Tactically, the minigun equipped LOH in effect, is an additional type aircraft in the unit's pool. The AH-27 equipped LOH allows instantaneous firepower to be directed at the enemy from a vantage point much closer to the enemy than the larger AH-1G. The low minigun LOH is better covered. The AH-1G remains the primary mode of firepower for the unit.

(e) On 25 January 1970, the 16th Avn Grp (Cbt) received min. AH-59 systems. The tentative plan is to evaluate the employment of the AH-59 system from the OH-1H aircraft. The added firepower of a .50 caliber weapon at a high altitude may be another asset to the unit's growing flexibility.

(f) The 71st AHC, 174th AHC, and 170th AHC continue to support the 99th Inf Div, 11th Inf Div, and 198th Inf Div respectively.

(g) The 122nd and 178th Assault Support Helicopter Companies remain in general support of the Division.

(h) The 16th Avn Grp (Cbt) stands ready to support the Division on any of several contingency plans with up to 12 UH-1H lift ships, six UH-1C gunships and four OH-27 helicopters. The required reaction time varies from one to twelve hours depending upon the type reaction force required.
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Period Ending (31 January 1970) RCS CSFR-65 (RI)

(2) Operations

(a) Operational Statistics for the quarter are attached as
Inclosure 2.

(b) Numerical Operations supported.

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>SUPPORTED UNIT</th>
<th>DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nantucket</td>
<td>198th Inf Bde</td>
<td>23 Jul 69, continuing</td>
</tr>
<tr>
<td>Fredrick Hill</td>
<td>196th Inf Bde</td>
<td>18 Mar 69, continuing</td>
</tr>
<tr>
<td>Geneva Park</td>
<td>198th Inf Bde</td>
<td>18 Mar 69, continuing</td>
</tr>
<tr>
<td>Iron Mountain</td>
<td>11th Inf Bde</td>
<td>18 Mar 69, continuing</td>
</tr>
</tbody>
</table>

(c) Aircraft status at end of reporting period - Inclosure 3.

(d) No damage was done to any of the units of the 16th Avn Gp (Cbt) during the single rocket attack on 25 January 1970.

(e) Examples of significant actions during the reporting period are as follows:

1. 1 December, F Troop, 8th Cavalry, was scrambled to extract a Division LRADP team that was surrounded and in heavy contact in the vicinity of BTO41965. Just as the team arrived on station, the NVA force, estimated at 50 in number, attempted to rush the LRADP's position. The gunships engaged with VT rockets killing 12 and dispersing the rest. The LRADPs were then successfully extracted.

2. 13 December, a VR team from D Troop, 1/1 Cav spotted a military aged mule with pack and weapon. The individual was engaged and killed; when the LOH attempted to extract the weapon and pack, the aircraft received heavy fire. The VR team returned to home station, a heavy VR team was committed and infantry was called for reinforcement. The Infantrymen were inserted and immediately started a sweep resulting in eight kills and three POWs while the LOH and AH-1Gs screened around them, killing another thirty enemy soldiers. The G/N aircraft called for and received an airstrike on bunkers and also coordinated the use of C Troop, 1/1 Cavalry to sweep in from the north. The C Troop Commander was picked up by a LOH, shown the best avenues of attack, and with this help, the troops swept into the objective from the north killing fourteen more, and capturing twelve POWs. The entire operation reflected close teamwork between three different units acting as a team against the enemy resulting in fifty-two VC kills, a kilo, KL, and fifteen POWs with thirty fighting positions destroyed.

3. 14 December, while on a screening mission for 2/1st Infantry and F/17 Armored Cavalry in the northern portion of the AO, an F/A-18 F/17 Cav IOW spotted six VC with weapons evading from the cavalry. The F/A/18 immediately killed one, and when the remaining VC engaged the IOW, the runship...
engaged and killed the remaining enemy with rockets and minigun. The same pattern continued for the rest of the day with the ground cavalry flushing the targets and F/8 engaging them. Seventeen NVA KIA were accounted for in this manner.

4 13 January, B Company, 123d Avn Fn (Cbt), performed a blocking and visual reconnaissance mission for a 1/20 Inf element that had been airlifted into the area and was sweeping toward the F Company team. The Infantry was inserted to detain suspects leaving the area ahead of the 1/20, Inf sweep. A total of ten NVA were detained; one CPT, two TEs, and seven NCOs. Intelligence data from these prisoners was among the most valuable received by the 11th Inf Rde during the reporting quarter.

5 17 January, The B Company Infantrymen were inserted into an area just west of Hill 411 after the gunship team had engaged three NVA resulting in three NVA KIA. The Infantrymen immediately engaged two more NVA, resulting in an additional two NVA KIA. The Infantry then pursued an element of NVA, covered by the team LOH. The LOH observed and engaged another NVA, resulting in one NVA KIA that evaded capture. The Infantry captured packs and papers, and swept through an area that contained an old .51 caliber position, a small workshop, and several booby traps. The same day, after the Infantrymen had been extracted, the gunship team answered a call from the Special Forces for gunship support on a contact mission in an area just southwest of Chu Lai. The gunships engaged an unknown size enemy force, resulting in 10 NVA KIA, and one extremely large secondary explosion that sent debris 500 feet into the air and resulted in an additional 18 VC KIA.

(f) Support for emergency medevac and contact missions is provided by both battalions on a continuing basis during the hours of darkness. In addition, flares are utilized to augment the perimeter lights for Chu Lai Defense Command and as a deterrent to the launching of enemy rockets into Chu Lai from the northern and southern rocket pockets.

(g) The 16th Avn Gp (Cbt) has continued to supply an LOH aircraft for tactical reconnaissance and two UH-1H aircraft to support the III MAF. Aviation support is also provided to the senior province advisors of Chu Pag and Chuin.

(3) Training

(a) Rigid training schedules continue to be a problem for units in a combat environment; the majority of the classroom training consists of mandatory subject matter and special classes determined necessary for accomplishment of the unit's mission. Initial flight orientation and training is conducted by the units. Aircraft are made available as needed for flight training. Units continue the practice of assigning of instructor pilots or senior aircraft commanders with newly assigned aviators in order to maintain crew proficiency at the desired level.
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(b) Infantry personnel continue to receive refresher training in demolitions, rappelling and squad and platoon tactics. They also participate in a regular program of marksmanship development.

(c) OJT is conducted under the supervision of platoon leaders and platoon sergeants to train personnel in critical skills where school trained personnel are not available.

(d) On the job training, material readiness, and formal training (as specified in training directives) continues to be stressed by 16th Avn Gp (Cbt). In-country schools are being used to full advantage, especially in the field of aircraft maintenance.

(e) Aviation flight training is being conducted by the 16th Group Standardization Section. The current programs of instrument instructor pilot training and aviator artillery adjustment training include ground and flight instruction. The aviation companies perform unit training with a minimum of two hours of instrument flight training per aviator per month.

e. Logistics and Maintenance

(1) Class I. The 123d Avn Bn (Cbt) assumed control of the division artillery mess in November 1969, since more 16th Avn Gp (Cbt) personnel consist there than any other unit.

(2) Class II & IV. The past problem, concerning the issuance of flight gear, should be eliminated with the opening of a Central Issue Facility for these items by the 23d S&T Battalion in February 1970. The facility will be operated on a direct exchange basis. The consolidation of these items will alleviate the past problem in equal distribution and should provide for a smoother operation.

(3) Class V. The proper type and amount of ammunition has been available throughout the reporting period in most cases. Exceptions have been the lack of an adequate supply of 40mm rounds and hand illumination flares. It is expected that this problem will be alleviated in the future.

(4) The aircraft technical supply profile of the 335th Transportation Company continued to improve during the reporting period. The number of ASL lines has stabilized somewhat at 7200 lines. The demand satisfaction realized by the unit has been slowly on the increase to where it now stands at 65%. Added emphasis is currently being placed on improving the supply profile of the unit by continuing internal audit procedures, utilizing the Autodid system to transmit requisitions, increasing the customer assistance effort.

(5) A large number of reports of survey have been initiated resulting in increased command emphasis on property accountability.

(6) Phase Development.

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(a) Approval of all new construction has been drastically curtailed due to recent cutbacks on funds for construction projects. Increased emphasis is being placed on R and U activities in lieu of new construction. The major gain was the construction of an aircraft maintenance hanger at the 174th ANC at Duc Pho.

(b) Backlogs in the accomplishment of all types of engine support have continued to increase.

(c) Chronic power and water supply problems have prevailed in the 123d Avn Bn (Cbt) during this quarter.

(d) Construction is to be completed on the 123d Avn Bn (Cbt) operations bunker by 10 February 1970.

(7) Maintenance

(a) Aircraft

1. The significant event in the aircraft maintenance field was the accomplishment of the first 1800 hour periodic inspection, 100% technical inspection, and overhaul of a UH-1C based on the new retrograde criteria. There were approximately 1150 manhours expended in four weeks time in accomplishing this inspection and overhaul.

2. Aircraft Availability Rates (%) for the quarter by month and type of aircraft.

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH-6A</td>
<td>78</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>AH-1G</td>
<td>84</td>
<td>81</td>
<td>74</td>
</tr>
<tr>
<td>UH-1C</td>
<td>82</td>
<td>82</td>
<td>84</td>
</tr>
<tr>
<td>UH-1D</td>
<td>53</td>
<td>44</td>
<td>66</td>
</tr>
<tr>
<td>UH-1H</td>
<td>84</td>
<td>84</td>
<td>84</td>
</tr>
<tr>
<td>CH-47B</td>
<td>79</td>
<td>82</td>
<td>79</td>
</tr>
<tr>
<td>U-6A</td>
<td>84</td>
<td>90</td>
<td>77</td>
</tr>
</tbody>
</table>

2. E Company, 723d Maint Bn has established an assistance program to aid the supported units. The assistance team helps the units improve their maintenance and supply procedures with visits once every two weeks.

4. The aircraft maintenance and technical supply assistance team from the 335th Trans Co visited the division artillery and individual
brigade aviation sections during the reporting period. The purpose of the visit was to assist the individual units in detecting weak areas in their aircraft maintenance and technical supply procedures. Areas stressed included maintenance operations, production control, quality control, and technical supply. The inspection detected several areas in each unit which needed additional emphasis. The assistant inspection has proven to be a valuable tool in the drive to improve the maintenance and aircraft availability within the division.

A large number of incidents and accidents involving the OH-6A occurred during this reporting period due to the rigging of throttle linkages. In an attempt to determine the cause for the increased accident rate, assistance was requested from the 34th General Support Group. A one-time detailed inspection of all OH-6A aircraft was conducted by Hughes and Allison technical representatives with the assigned crew chief, maintenance personnel, and visitors being present. At the completion of the inspection, a two-hour seminar was conducted. Four major and four minor problem areas were discovered and immediate corrective action was taken. This should result in a reduced accident rate for the OH-6A.

(b) Wheeled Vehicles. A problem has arisen in obtaining a replacement long boom wrecker in the 132nd ASHC for use in aircraft maintenance.

f. Civil Affairs and Civic Action: The 16th Avn Gp (Cbt) continues to support the Tabitha Orphanage in An Ton. The 16th Avn Gp (Cbt) contributes money each month and during this quarter the 123d Avn Bn (Cbt) installed screen doors and windows in the dining area and kitchen of the orphanage. The 14th Avn Bn (Cbt) has procured materials to construct latrine facilities, but high water conditions have temporarily halted construction.

g. Inspector General: The Annual Amrical Division AGI was received by Co, B Co, D/1-1 Cav, and F/8 Cav. 123d Avn Bn (Cbt) on 6 - 7 January 1970. The overall ratings were satisfactory.

h. Information - No current.

(i) Other:

(1) Communications:

(a) HF Radio Teletype: 174th HPC, Duc Pho, established secure teletype contact with En Hq, Chu Iai, by use of an AN/BCO-42.

(b) Critical Items: Avionics test equipment is not authorized throughout the Group for the newer series aircraft radars.

(c) A UHF and secure FM radio capability was established in the Group TOC.

(d) With the advent of the monsoon season, a significant problem...
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in communications was noted. The climate in Vietnam during the monsoon is particularly hard on WD-1 wire. The insulation deteriorates rapidly and the rain short circuits the wire. The wet weather also has bad effects on SIAE (Standard Lightweight Avionics Equipment). Dampness is a major contributor to down time of avionics equipment.

(2) During the report period, the 16th Avn Gp (Cbt) TOC was inspected for security by a USARV MI team. The USARV team made several recommendations with regard to bunker construction, location of communications equipment, and limiting access to the communications portion of the bunker.

(3) Aviation Safety: The number of accidents and computed rate per 100,000 hours of flying time by month is as follows:

<table>
<thead>
<tr>
<th>MONTH</th>
<th>ACCIDENTS</th>
<th>RATE</th>
<th>CUM RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov</td>
<td>3</td>
<td>23.2</td>
<td>17.1</td>
</tr>
<tr>
<td>Dec</td>
<td>2</td>
<td>15.4</td>
<td>16.9</td>
</tr>
<tr>
<td>Jan</td>
<td>2</td>
<td>13.1</td>
<td>16.5</td>
</tr>
</tbody>
</table>

(4) Aviation Medicine Diseases.

(a) The group had one case of infectious hepatitis during the last three months; however, hepatitis has not been a problem.

(b) Malaria. The group had three cases of malaria during the last three months. This is an increase of one over the last reporting period. Malaria is not a health problem in the 16th Avn Gp (Cbt).

(c) Skin Disease. During the last three months, skin rashes have decreased considerably due to the cooler temperature. However, skin rashes will probably again become somewhat of a problem as the temperature rises during the next reporting period.

(d) Venereal Disease. This is not a significant health problem in 16th Avn Gp (Cbt).

(3) SECTION II, LESSONS LEARNED: COMMANDERS OBSERVATIONS, EVALUATIONS AND RECOMMENDATIONS.

a. Personnel:

(1) Observation: The 14th Avn Bn (Cbt) is understrength in helicopter maintenance personnel.

(2) Evaluation: The shortage of helicopter mechanics and associated MOSs requires a continuing OJT program for non-related MOS personnel in order to accomplish the mission and thereby reduce the quality of aircraft maintenance.
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(3) Recommendation: That emphasis be placed on procuring qualified aircraft maintenance personnel.

b. Intelligence:

(1) Observation: Information of value to future operations and missions of the air cavalry type units from interrogation and/or analysis of documents is slow or is not passed on to units performing reconnaissance missions.

(2) Evaluation: Information gained from prisoner interrogation and/or document analysis is of vital concern to units performing reconnaissance missions in the area from which the source originated. It would provide these units information concerning the enemy situation, strengths, methods, equipment and generally an idea of what to look for.

(3) Recommendation: That reconnaissance units/air cavalry units be placed on intelligence distribution of the Brigade for whom they support. Valuable information would then be gained and used regarding future employment in the area from which the information was gained.

c. Operations:

(1) Kit Carson Scout Program

(a) Observation: The acquisition of a Kit Carson Scout from the Americal Division Training Center has greatly improved the intelligence gathering capabilities of the air cavalry type units.

(b) Evaluation: In the short period of time that these scouts have been in the units, the amount of significant intelligence information that they have gathered by virtue of his bi-linguality and experience has been impressive.

(c) Recommendation: That the program be continued.

(2) Combat Assaults:

(a) Observation: Company size assaults appear to be most effective for the Americal AO.

(b) Evaluation: Assaults controlled and executed by the assault helicopter company have the advantage of tactical integrity for the unit and allow for maximum coordination and planning. By using only the aircraft normally committed in support of the brigade on a daily basis for the execution of the assaults, this leaves the other two brigades free to utilize their allocated aircraft as they desire.

(c) Recommendation: That Division continue to consider using only these aircraft committed in support of the brigade on a daily basis.

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(3) Conex doors:

(a) Observations: Conex doors open in flight.

(b) Evaluation: While being externally carried by CH-47 aircraft, several conex container doors came open in flight resulting in the loss of equipment and supplies.

(c) Recommendations: These units that use conex containers make certain that the doors are secured by a welded hasp or welded chains that can be locked.

(4) Utilization of MK 45 Flares:

(a) Observations: A minimum dispensing height of 800 feet above the ground is required for the MK 45 Flare.

(b) Evaluation: The minimum fuze setting on the flares is 500 feet which means that theoretically the flare will fall 500 feet before the parachute starts to deploy. By actual testing in this area, it was found that 800 feet minimum altitude is required to fully deploy the parachute and ignite the flare. The illuminating descent distance of the MK 45 is 1575 feet. Any flare dropped from an aircraft below 2375 feet above the ground will continue to burn on the ground until the illuminating material is exhausted. The optimum altitude for dropping the flare is approximately 2500 feet above ground level.

(c) Recommendations: To derive any benefit of aerial illumination during emergencies, the minimum dispensing altitude should be 1000 feet above ground level.

d. Organization: No comment.

e. Training: No comment.

f. Logistics: No comment.

g. Communications:

(1) Corrosion of RC-292 antennae:

(a) Observation: Excessive corroding of all metal surfaces over extended periods of time.

(b) Evaluation: The large amount of corrosive vapors along the coast of the Republic of Vietnam causes all metal surfaces of RC-292 antennae to corrode rapidly. Replacement parts are difficult to procure, especially antenna element AB-22.
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   Period Ending (31 January 1970) RCS OSFOR-65 (RI)

   (c) Recommendation: A plastic or silicon spray be developed for metal surfaces that can be used at organizational level.

h. Material: Aircraft Corrosion Problem.

   (1) Observations: Units are having a large corrosion problem. Some aircraft sent to DS maintenance are required to be kept several days longer than anticipated due to the necessity of changing corroded parts.

   (2) Evaluation: Salt spray corrosion is causing aircraft to remain in maintenance longer thereby denying their use to the units. Some units have set up Corrosion Prevention Teams. The teams check every aircraft while in maintenance and take corrective measures on those found to have corrosion.

   (3) Recommendation: That every aircraft be washed with fresh water as often as possible. All known corroded parts should either be replaced or inspected more frequently. All parts that do show signs of corrosion should be lubricated or painted with zinc chromate.

i. Others:

   (1) Aircraft Maintenance:

      (a) Observations:

         1. UN-1C aircraft undergoing inspections at the 1800 hour level will be inspected I/A/W TM 55-1520-220 PMP. This inspection will be supplemented by the criteria set forth under recommendations of this ORIL.

         2. The inspection of UN-1H aircraft at the 2200 hour level will be inspected I/A/W TM 55-1520-220 PMP. However, time before overhaul (TBO) component changes are due at this hour level. This inspection will also include the criteria set forth in the recommendations of this ORIL.

      (b) Evaluation:

         1. UN-1C aircraft having extensive sheetmetal repair have required approximately 1100 DSU man-hours during this inspection period.

         2. UN-1H aircraft at 2200 hours have very few critical components. Therefore, extensive TBO changes are uncommon. Sheet-metal has not proven to be a problem with the UN-1H model. Approximately 900 man-hours of organizational maintenance is required on this model aircraft without TBO component changes.

      (c) Recommendations: The following criteria is set forth for clarification of USARV MSG, IRN 330-2056, dtd 260109 November 1969, Subj: Changes in Cyclic Overhaul Retrograde Criteria (V). This criteria will be a supplement
to the PMP inspection as set forth in the appropriate technical manual:

1. Remove tail-boom and inspect tail-boom attaching points for elongations. Tail-boom attaching bolts will be magnafluxed or changed.

2. Remove 42 degree and 90 degree gear box and inspect attaching points for elongation of bolt-holes and abnormal voids.

3. Remove skids and cross tubes and inspect attaching points for cracks and indications of hard landings.

4. Inspect all formers, stringers, and bulkheads in tail-boom and cabin for cracks and loose rivets.

5. Inspect engine deck for separation.

6. Inspect aft cabin walls for separation in bonding.

7. Remove transmission and inspect mounting brackets for cracks.

8. Inspect vertical-tin for loose rivets and cracks.


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SUBJECT: Operational Report Lessons Learned (16th Combat Aviation Group) (U)

DA, Headquarters, Americal Division, APO 96374  F  MAR 70

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

1. (U) Forwarded herewith are two copies of the subject report from the 16th Combat Aviation Group for the period 1 Nov 69 - 31 Jan 70.

2. (U) This Headquarters concurs with the observations and recommendations contained in the basic communication.

FOR THE COMMANDER:

R. M. Wolski  CPT, AGC
Joe Joyce  CPT, AGC
Asst AG
1. This headquarters has reviewed the Operational Report—Lessons Learned for the quarterly period ending 31 January 1970 from Headquarters, 16th Aviation Group (Combat) and concurs with the comments of endorsing headquarters.

2. Comments follow:

a. Reference item concerning "Wheel Vehicles", page 11, paragraph 4(3)(b); nonconcur. Referenced item, H246 long boom wrecker, is not on requisition. The 16th Aviation Group advised USARV on 17 March 1970 that the 17th Assault Helicopter Company (ASHC) laterally transferred a wrecker to the 132d ASHC on 4 March 1970. No further action required.

b. Reference item concerning "Critical Items", page 11, paragraph 11(1); concur. The 16th Aviation Group requires a test set (TS-1558) for the C-1611 aircraft intercom set, and a test set (TS-2575) for the AN/ARC-131 radio. The Test Set-1558, not a new series radio test set, is authorized at ES level and is available at the 723rd Maintenance Battalion, Air Logistic Division. No test set is required to maintain the AN/ARC-131 radio. No action by USARPAC or DA is recommended.

c. Reference item concerning "Understrength in Helicopter Maintenance Personnel", page 12, paragraph 12(1); concur. The shortage of helicopter mechanics and associated MOS within the Air Logistic Division, to which the 16th Aviation Group belongs, reflects the overall situation within USARV.

d. Reference item concerning "Corrosion of EC-292 Antenna", page 14, paragraph 8(1); nonconcur. The Antenna, EC-292, is designed to be used in all climates. The antenna, as issued, has all exposed surfaces protected by a corrosion inhibiting coating. To maintain the antenna components in a serviceable condition, a conscientious program of preventive maintenance is required. The periods between maintenance should be dictated by the climatic conditions prevailing.
AVHCO-DST (15 Feb 70) 2d Ind
SUBJECT: Operational Report - Lessons Learned (16th Aviation Group (Combat)) Period Ending (31 January 1970) RCS CSFOR-65) (R2)

e. Reference item concerning "Aircraft Corrosion Protection", page 11, paragraph 2b; concur. Procedures for aircraft corrosion control are outlined in TM 55-805-3 and applicable -20 series aircraft technical manuals. No action by USARPAC or DA is recommended.

f. Reference item concerning "Aircraft maintenance", page 15, paragraph 21(1); concur. The increase in frequency or scope of required inspections is a discretionary matter on the part of commanders and maintenance officers. The items listed in the recommendation are presently included in the UH-1 periodic inspection checklist (TM 55-1,20 220-20 PMF). No action by USARPAC or DA is recommended.

FOR THE COMMANDER:

I. D. MURRAY
CPI.

Cy thru:
HQ, Americal Div
HQ, 16th Avn Gp
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ORGANIZATIONAL CHART
16TH AVIATION GROUP (COMBAT)

AMERICAN DIVISION

16TH AVN GP (CBT)

HHC
14TH AVN BN (CBT)
123D AVN BN (CBT)
235TH TWS CO

STATION LIST
16TH AVIATION GROUP (COMBAT)

UNIT

HHC, 16th Avn Gp (Cbt)
HHC, 123d Avn Bn (Cbt)
Co A, 123d Avn Bn (Cbt)
Co B, 123d Avn Bn (Cbt)
F Troop, 5th Cav
D Troop, 1st Cav
415th Sig Det
570th Trans Co
Co E, 723d Maint Bn
HHC, 14th Avn Bn (Cbt)
534th Med Det
14th Security Flt
71st AH
174th AH
756th Med Det
175th AH
132d ASHC
178th ASHC
535th Trans Co

STATION

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Incl 1 Organization Chart and Station List, CHL of 16th Avn Gp (Cbt) Period End:
(31 January 1970) RCS CSFOR-65 (RI)
Operational Report - Lessons Learned, HQ, 16th Aviation Group

Experiences of unit engaged in counterinsurgency operations, 1 Nov 69 to 31 Jan 70.

CIVILIAN INDIVIDUALS

HQ, OACSFOR, DA, Washington, D.C. 20310