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DEPARTMENT OF THE ARMY
HEADQUARTERS 269TH COMBAT AVIATION BATTALION
APO 96353
"DISCIPLINED PROFESSIONALS"

OPERATIONAL REPORT
LESSONS LEARNED

[redacted]

Jan 31, 1968

DEPARTMENT OF THE ARMY
HEADQUARTERS 269TH COMBAT AVIATION BATTALION
APO 96353
"DISCIPLINED PROFESSIONALS"

AVGC-F 1 February 1968

SUBJECT: Operational Report - Lessons Learned for Quarterly Period Ending 31 January 1968

TO: SEE DISTRIBUTION

INTRODUCTION

The helicopter in Vietnam has proven itself beyond any doubt as the vehicle primarily responsible for the success of our ground forces in the combat theater. It is no myth that rotorcraft serve every conceivable purpose, satisfy nearly every need, and, in fact, almost totally support our units in their tactical environment. Of utmost importance, however, Army aircraft afford the ground commander the luxury of a constantly offensive posture. A commander may maintain the initiative to a degree limited only by his own imagination.

Imagination, unfortunately, can be used only after the basic doctrines and principles of air mobility are thoroughly understood. The lessons to be learned in airmobile concepts can only be taught here in the combat theater. Approved solutions to heliborne tactics are still being discovered, still being exploited. The hard, fast, rules still emanate from the fire received in an enemy occupied landing zone.

We in the 269th, dedicated to the success of airmobility, continue in our efforts to further develop heliborne tactics. In documenting our "lessons learned", we hope not only to improve our own techniques, but also to indoctrinate those ground commanders whose professional competence is so essential to the total success of the airmobile effort.

It is with immense pride and satisfaction that I again invite your attention to the Operational Report - Lessons Learned, of the 269th Combat Aviation Battalion. It is my sincere hope that our "lessons learned" will be of mutual benefit to air and ground forces alike, and that these lessons will materially assist the further development and assure the continued success of Army Aviation in the Republic of Vietnam.

James H. Merriman

JAMES H. MERRIMAN
LTC, ARTY
Commanding

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SECTION I—SIGNIFICANT UNIT ACTIVITIES

A. (C) Significant Events

1. The 269th Combat Aviation Battalion, marking its first year in the Republic of Vietnam, continues in its intense airmobile effort against the VC/NVA forces in the III Corps Tactical Zone. During the quarter of this report, the 269th has conducted large scale Battalion size assaults in Operations BARKING SANDS, DIAMONDHEAD, and KOLE KOLE, in support of the 25th Infantry Division. More recently the Battalion launched the initial assault forces for Operation ATLANTA, a 25th Division effort to secure the IRON TRIANGLE, and Operation YELLOWSTONE, a joint 25th Division and ARVN exercise of immense magnitude, designed to search and destroy VC/NVA forces in War Zone "C" and northern TAY NINH Province. The assault helicopter companies daily flew combat assault missions at subordinate unit level in support of the various battalions of the 25th Division. The Battalion's CH-47 medium cargo helicopters conducted extensive logistical support missions throughout the III Corps area.

2. Since the termination of the last quarterly report, two changes have been made in unit locations. The 269th Combat Aviation Battalion Headquarters remains at CU CHI, as does the 116th Assault Helicopter Company. The 187th Assault Helicopter is at TAY NINH, while the 188th Assault Helicopter Company is at DAU TIENG. The 242d Assault Support Helicopter Company, previously at BIEN HOA pending completion of CH-47 facilities at CU CHI, has since moved to this location. The 21st Reconnaissance Airplane Company, formerly assigned as the only fixed wing unit in the attalion, and located at TAY NINH, has been reassigned to the 17th Combat Aviation Group.

3. The geographical location of the assault helicopter companies continues to permit a nearly permanent mission assignment of each company to a specific Brigade of the 25th Infantry Division. The Battalion continues to assign the 116th Assault Helicopter Company missions supporting the 2d Brigade, the 187th missions supporting 1st Brigade, and the 188th missions supporting the 3d Brigade. The rapport established between successive assault helicopter company commanders and successive supported infantry battalion commanders continues to build and sustain a unique confidence which has proven substantially responsible for maintaining operational stability during critical combat situations.

4. The 116th, 187th, and 188th Assault Helicopter Companies remained the primary airmobile support for the 25th Infantry Division. This is not the full extent of the Battalion's airmobile support, however, as the assault helicopter companies have repeatedly conducted operations in conjunction with the 1st and 9th Infantry Divisions, ARVN forces, and personnel from the Civilian Irregular Defense Groups. During the latter days of December and the month of January, the 188th Assault Helicopter Company became heavily involved in support activities

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SIGNIFICANT EVENTS

for US Special Forces elements in War Zone "C".

5. The 242d Assault Support Helicopter Company, now operating out of CU CHI, continues to make impressive gains in Chinook tactical operations. Daily committed for a minimum of six aircraft, the 242d is flying 72% more hours per day than the programmed time for CH-47 units in the III Corps area.

6. The 21st Reconnaissance Airplane Company, previously assigned to duty at TAY NINH, has since deployed to conduct missions in the I CTZ. While assigned as a unit of this Battalion, the 21st Reconnaissance Airplane Company flew visual reconnaissance missions in support of virtually every command in western III Corps. The techniques in reconnaissance and general employment of the O-1 aircraft developed by this unit greatly increased the VR capability of friendly forces located within the Corps boundaries.

7. During the quarter of concern, 1 November to 31 January, the 269th Combat Aviation Battalion again demonstrated that it is participating in some of the most aggressive airmobile action in the combat theater today. Continued action at all levels of command is indicative that the unit's commitment to the offensive action within III Corps can most accurately be described as intense. The Battalion's pursuit of excellence in every facet of airmobility can readily be witnessed in the quality and professionalism evidenced in the conduct of each airmobile assault.

8. From 1 November through 31 January, the 269th Combat Aviation Battalion flew 127,091 sorties, logging a total of 48,852 accumulated flying hours. 246,464 passengers were carried and 13,087 tons of cargo were moved in support of ground forces. 168 Viet Cong were killed during the period by Army Aircraft of this Battalion. The 269th evacuated a total of 281 medical casualties.

9. During the period the Battalion itself suffered 4 KIA and 39 WIA. 231 aircraft received combat damage form hits by enemy ground fire. Most of the hostile fire taken was so taken during a total of 177 days of combat assault missions in support of ground forces.

10. The figures shown are continual evidence that the 269th Combat Aviation Battalion supports some of the most aggressive action in the war today. A further statistical account follows for your interest and perusal:

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SIGNIFICANT EVENTS

269TH COMBAT AVIATION BATTALION STATISTICAL SUMMARY

1-30 November 1967	116TH	187TH	188TH	21ST	242D
SORTIES	6491	8482	6614	2149	4211
FLIGHT HOURS TOTAL	2754	2613	2336	3113	1157
FLIGHT HOURS D (H) MODEL	2292	2026	2267	0	1175
FLIGHT HOURS B (C) MODEL	462	587	469	0	0
PASSENGERS CARRIED	12482	13964	12695	0	15426
CARGO TONS	123.0	107.4	178.0	0	7362.0
VC KIA	8	9	1	0	0
VC KBA	0	0	0	0	0
STRUCTURES DESTROYED	0	7	12	0	0
SAMPANS DESTROYED	0	6	2	0	0
AIRCRAFT COMBAT DAMAGE	9	4	12	2	2
AIRCRAFT LOSS	9	4	12	2	2
US KIA	1	1	1	0	0
US WIA	6	1	0	0	0
MED EVAC	12	15	11	0	1
COMBAT ASSAULTS	18	21	21	0	0

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SIGNIFICANT EVENTS

269TH COMBAT AVIATION BATTALION STATISTICAL SUMMARY

1-31 December 1967	116TH	117TH	188TH	21ST	242D
SORTIES	8188	6987	7528	2249	5519
FLIGHT HOURS TOTAL	2879	2824	2574	2736	1465
FLIGHT HOURS D (H) MODEL	2338	2074	2106	0	0
FLIGHT HOURS B (C) MODEL	541	750	468	0	0
PASSENGERS CARRIED	15875	13996	14060	0	15773
CARGO TONS	89	99	92	0	9705
VC KIAA	10	14	8	0	0
VC WIAA	0	0	0	0	0
STRUCTURES DESTROYED	1	5	3	0	0
SAMPANS DESTROYED	6	0	9	0	0
AIRCRAFT COMBAT DAMAGE	15	3	15	3	10
AIRCRAFT KILLS	24	3	32	3	24
US KIA	0	0	0	0	0
US WIA	2	0	1	2	2
KIA NVAC	33	8	32	0	7
COMBAT ASSAULTS	22	20	23	0	0

[redacted]

[redacted]

SIGNIFICANT EVENTS

269TH COMBAT AVIATION BATTALION STATISTICAL SUMMARY

1-31 January 1968	116TH	187TH	188TH	21ST	242D
SORTIES	7717	8320	5257	430	4949
FLIGHT HOURS TOTAL	2984	2636	2052	589	1456
FLIGHT HOURS D (H) MODEL	2579	1987	1647	0	0
FLIGHT HOURS B (C) MODEL	406	648	404	0	0
PASSENGERS CARRIED	15453	14458	7147	0	15127
CARGO TONS	44.7	56	268.5	0	9474
VC KBAA	92	19	7	0	0
VC WBLA	0	0	0	0	0
STRUCTURES DESTROYED	0	2	1	0	0
SAMPANS DESTROYED	0	0	2	0	0
AIRCRAFT COMBAT DAMAGE	18	23	15	0	3
AIRCRAFT HITS	32	38	42	0	4
US KIA	0	1	0	0	0
US WIA	7	12	6	0	0
MED EVAC	38	39	72	0	13
COMBAT ASSAULTS	27	22	3	0	0

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~~CONFIDENTIAL~~

SIGNIFICANT EVENTS

11. The 269th Combat Aviation Battalion's principal operations during the quarter have been described quite briefly. A more detailed and precise account follows.

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B. (U) COMMAND.

1. The primary mission of the 269th Combat Aviation Battalion Headquarters is to provide command, control, staff planning, and administrative supervision for its assigned aviation units. Subordinate assault helocopter companies have as their primary mission the airlifting of combat troops in airmobile operations, while the Battalion's assault support helicopter company provides a logistical and tactical airlift capability for movement of troops and supplies. The extension of surveillance and target acquition capabilities of ground units was the mission of the 21st Reconnaissance Airplane Company, which recently deployed for assignment to the 17th Combat Aviation Group.

2. Organization.

a. The 269th Combat Aviation Battalion is composed of a Headquarters Company, three Assault Helicopter Companies, and one Assault Support Helicopter Company (see Inclosure 1). One Reconnaissance Airplane Company assigned to this command since July, was transferred early in January to the 17th Combat Aviation Group in the 1st CTZ.

3. Personalities.

a. Commander: During the entire period covered by this report the Battalion Commander has been Lieutenant Colonel JAMES [illegible] [illegible], 0[illegible]7566, Artillery.

b. Staff. At the close of the reporting period the principal staff officers were:

(1) Executive Officer: Lieutenant Colonel EDGAR F TODD, OF105845, Artillery.

(2) S-1: Major CHARLES [illegible] GRA[illegible], 091846, Transportation Corps.

(3) S-2: Major L[illegible]DON [illegible] HOL[illegible]N, 05309136, Signal Corps.

(4) S-3: Major [illegible] G S[illegible]S, 0[illegible]9607, Artillery.

(5) S-4: Major JOSEPH A SITES, 04004905, Corps of Engineers.

c. Unit Commanders. At the close of the reporting period the unit commanders of subordinate units were:

(1) Headquarters Company: Captain FRANK T PETERL[illegible], 052077355, Artillery.

(2) 116th Assault Helicopter Company: Major [illegible] R WOODRUFF, 073431, Artillery.

(3) 1[illegible]7th Assault Helicopter Company: Major JOS[illegible] C BUR[illegible]

COMMAND

082152, Transportation Corps.

(4) 188th Assault Helicopter Company: Major JACK O JOHNSON, 077484, Artillery.

(5) 242d Assault Support Helicopter Company: Major ANDREW N ALFORD, 0193976, Infantry.

C. (C) Personnel and Administration.

1. Maintenance of unit strength:

a. Battalion strength as of 31 January 1968: (See Inclosure 2).

b. Summary of projected gains and losses for the next 90 days: (See Inclosure 3).

2. Personnel reports: Personnel reports are submitted in accordance with 269th Combat Aviation Battalion Regulation 335-1.

3. Replacements: Replacements have been requistioned in accordance with USARV Regulation 614-185 for officer personnel (5 months prior to DEROS for non-aviators and 11 months prior to DEROS for aviators); and USARV Regulation 614-202 for enlisted personnel (8 months prior to DEROS for senior enlisted personnel and 6 months prior to DEROS for grades E-1 through E-6 personnel). Replacements are requistioned on the basis of authorized strength only.

4. Personnel management:

a. Reclassification: Administrative MOS reclassification during the quarter totalled 73.

b. Assignments: Personnel asigned during the quarter were as follows:

OFFICERS	WARRANT OFFICERS	ENLISTED
13	19	65

c. Promotions: Promotions during the quarter were as follows:

OFFICERS

LTC	MAJ	CPT	1LT	2LT	CWO
0	1	1	1	2	13

ENLISTED

E-9	E-8	E-7	E-6	E-5	E-4
0	1	2	18	149	145

d. Retirement/reversion to retired status: 2.

e. Rotation to CONUS during the quarter:

[redacted]

[redacted]

PERSONNEL AND ADMINISTRATION

OFFICERS	WARRANT OFFICERS	ENLISTED
27	45	154

f. Leaves during the quarter:

	OFFICERS	WARRANT OFFICERS	ENLISTED
Emergency	3	0	13
Compassionate	0	0	5
Special	3	1	33
Ordinary	3	1	20

5. R & R for the quarter:

a. Forecasted/requested: 467.

b. Received: 396.

6. Reenlistment program:

a. There were 15 reenlistments during the quarter.

b. The reenlistment program is published in the Battalion paper, "BLACK BARON RELEASE."

7. Casualties during the quarter:

a. a. Return to duty:

OFFICERS	WARRANT OFFICERS	ENLISTED
8	13	34

b. Evacuated from combat zone:

OFFICERS	WARRANT OFFICERS	ENLISTED
2	1	2

c. Killed in action:

OFFICERS	WARRANT OFFICERS	ENLISTED
2	1	2

[redacted]

[redacted]

[redacted]

8. Prisoners of war are turned over to the G-2, 25th Infantry Division for interrogating, safegrarding, processing and evacuation.

9. Civilian Personnel. Civilian personnel are hired from the abundant resources of the indigenous personnel. The local nationals are hired through two distinct categories, permanent hire and direct daily hire.

A. Permanent hires. Each unit, after submitting its current and projected civilian personnel requirements in accordance with USARV Regulation 690-7 through this headquarters to 12th Combat Aviation Group, is authorized to employ local nationals on a permanent basis. These people are employed in numerous positions to include kitchen police, carpenters, handymen, exterminators, and secretaries.

b. Permanent hires are employed as follows:

UNIT	NUMBER OF PERMANENT HIRES EMPLOYED
HHC, 269th Cbt Avn Bn	7
21st Recon Apl Co	9*
116th Aslt Hel Co	10
187th Aslt Hel Co	13
188th Aslt Hel Co	17
242d Aslt Spt Hel Co	9
	45

*This is the last reporting period for the 21st since they have been reassigned out of the 269th Combat Aviation Battalion.

c. Direct daily hires. Direct Daily hires are employed on a daily, as needed, basis. They are used primarily for unskilled labor such as filling sandbags, general police, etc. Currently mos units employ daily hires to aid in constructing aircraft revetments. Authorization to hire daily hires is obtained from 12th Combat Aviation Group Headquarters. Funds are allocated on a monthly basis to the Battalion. Each unit employed an average of 29 direct hires each working day during the 4th quarter, CY 1967. The wages paid vary from $VN 70 to $VN 85 per 8-hour work day. Local agreement requires 1 Vietnamese supervisor to be employed for each 20 Vietnamese laboerers employed. In addition, it is necessary to have 1 US Army individual to supervise each group employed.

10 Morale and personnel services.

[redacted]

[redacted]

PERSONNEL AND ADMINISTRATION

a. Character Guidance. The Character Guidance Program is supervised by the Battalion Chaplain. Classes are scheduled with the chaplain by the companies' training officer or NCO. The chaplain prepares a written briefing sheet monthly on each topic. This sheet is provided to the units for coverage of the officers and NCO's. This briefing is also read by enlisted personnel who cannot attend the classes because of their mission. In this manner all personnel within the command are able to participate in the Character Guidance Program.

b. Religious Services. Religious services of the three major faiths are available to all personnel within the command. Denominational services are also available to certain Protestant personnel.

(1) Services for Catholic personnel are provided by Chaplains from adjacent units. Catholics in HHC attend Confessions and Mass in the 2d Brigade Chapel at 0830 hours or 1030 hours on Sunday, or any of the several Masses held throughout the base camp. Those in the 187th Assault Helicopter Company and 21st Reconnaissance Airplane Company may attend at 1400 hours on Sundays in the Memorial Chapel at TAY NINH. Mass is held at 1000 hours and at 1600 hours in the Memorial Chapel at DAU TIENG and is available to men of the 188th Assault Helicopter Company. Catholic personnel of the 116th Assault Helicopter Company and 242d Assault Support Helicopter Company may attend Mass at 25th Division Memorial Chapel on Sundays at 1030 hours, or other Masses conducted at the several chapels at CU CHI.

(2) Jewish personnel within the command may attend services in the 25th Division Memorial Chapel at CU CHI on Fridays at 1900 hours and Saturdays at 0900 hours.

(3) The Battalion Chaplain conducts Protestant services for the units as follows:

(a) 242d Aslt Spt Hel Co: 0900 hours on Sundays in the company mess.

(b) HHC, 269th Cbt Avn Bn: 1100 hours on Sundays in the Battalion Conference Room.

(c) Services for personnel of the 187th Aslt Hel Co and 21st Recon Apl Co at TAY NINH and the 188th Aslt Hel Co at DAU TIENG are held on Sunday evenings at 1730 hours or 1930 hours. Each week the times alternate between TAY NINH and DAU TIENG for the purposes of availability to the largest number of troops in the two week period.

(d) Personnel of the 116th Aslt Hel Co attend services at the 25th Division Memorial Chapel at 0830 hours on Sundays, or they may attend with HHC.

[redacted]

(e) The scheduling was changed in order to allow for the additional service for the 242d Aslt Spt Hel Co and in an attempt to provide services at a time on Sundays for all personnel in the command.

(4) Special Services were conducted on Thanksgiving Day and Christmas.

(5) Protestant Denominational Services available are:

(a) Episcopal Holy Communion: 1130 hours on Sundays in the 25th Division Memorial Chapel at CU CHI.

(b) Lutheran Worship: 1300 hours on Sundays in 25th Division Memorial Chapel at CU CHI.

(c) Church of the Latter Day Saints: 0930 and 1030 hours on Sundays in the 116th Aslt Hel Co Officers Club. Latter Day Saints Services are also available in TAY NINH at 1800 hours on Sundays and at DAU TIENG at 1400 and 1430 hours on Sundays in the Memorial Chapel.

c. Postal service. During the past quarter we experienced the Christmas mailing rush. Our units served mail at least three times daily; the efforts of all postal personnel were commendable.

d. Special Services. An abundance of Special Services equipment is available to all the companies. Due to the 24 hours per day operations conducted by these units, a regularly programmed sports schedule is impossible. However, as much recreational time as possible is devoted to sports and crafts. In addition, movies are shown nightly to all companies.

11. Discipline, Law, and Order.

a. During the past quarter there were 6 special courts-martial.

b. There were no cases tried by general courts-martial.

c. There were no cases tried by summary courts-martial.

d. There have been 4 cases of confinement, 3 have been suspended, the fourth is presently in confinement and will be so for 6 months, 3 of which have already been served.

12. Headquarters management.

a. The Battalion operates a message center which is the nerve center of all distribution from and between our companies and higher headquarters. To assist the message center and to provide the

Battalion with much needed ability to transport personnel of the Battalion between their units, the Battalion maintains a daily courier, utilizing a UH-1 helicopter. This helicopter's normal schedule is 0800 to 1700 hours. Its route of flight includes two stops daily at 12th Combat Aviation Group and at both of the subordinate companies, one before noon and one after noon.

b. Administrative support. We have been experiencing some difficulties in obtaining regulations, blank forms and various office supplies. However, constant checking and rechecking of requisitons have alleviated most of the problems. Lack of office supplies continues to plague us.

c. Subordinate units are continuing to make ends meet reproduction wise. Often, however, when a machine is down for maintenance, it is necessary for the units to cut stencils and forward them to Battalion headquarters to be run off and returned. There remains a need for additional reproduction facilities.

13. Miscellaneous.

a. Safety program. The Battalion's safety program continues to be effective. We have had few motor vehicle accidents.

b. General education development. Facilities within the 25th Infantry Division for education development are continually improving. The outlying units remain less than adequate.

c. This past quarter was marked with a large number of distinguished visitors. They included such notables as Bob Hope and troupe, Raymond Burr, Governor Romney, and many Congressmen and Representatives.

d. Exchange facilities continue to improve. Naturally there are times when desired items are unavailable.

e. Clubs and messes. All organic units have their own messing facilities. Each of the companies have EM/NCO clubs as well as Officers Clubs, all of which are experiencing an excellent financial position.

14. Command Information. The Command Information program of the 269th Combat Aviation Battalion is extremely effective. Dissemination of Command Information material is accomplished largely through the Message Center facilities available. Material received from higher headquarters is extracted from the fact sheets and written in journalistic style for incorporation into the Battalion newspaper, BLACK BARON RELEASE. At unit level, the Command Information topics are given in several ways: through formation briefings, bulletin board postings, and through the unit and Battalion newspapers. Under the

tactical situation here in Vietnam, it has been difficult to conduct regular classes on Command Information. The most effective system is the one presently employed.

15. Awards and decorations. From the date 1 November 1967 to 16 November 1967, the Battalion Awards Office was in a condition of stagnation due to inadequate records left by previous clerks. Since 17 November 1967, the following changes have been made for administrative improvements:

a. The previous records have been isolated in a holding file to be used only for reference.

b. The first working file system was operational on 20 November to be completely independent of previous records that might not be accurate.

c. With Battalion Awards in poor condition, it is understandable that the individual units were also confused about many of the proper administrative methods in handling recommendations for awards.

(1) Letters explaining correct awards administrative procedures have been sent periodically whenever questions arose from unit level.

(2) To expedite improvement in this section, telephonic communication has been encouraged and properly taken advantage of.

(3) Two companies in the Battalion have sent representatives for interview and discussions to promote a closer working relationship between this Battalion awards section and the unit awards section.

(4) A system was adopted to expedite Posthumous Awards and has proved itself successful and valuable.

(5) To alleviate questions concerning USARV Certificate of Achievement, a 269th Cbt Avn Bn FORM, Ref. USARV Reg 672-1 APP. III, was established at this headquarters. This form should solve many of the original problems concerned with submitting recommendations for the Certificate of Achievement.

A Battalion Awards booklet, "Reference to Awards and Decorations Administration", is being compiled to be completed and circulated among the units on or about 5 February 1968. This will include questions most frequently asked with answers not only to these, but other important and misunderstood concepts in the administration of award recommendations.

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D. (U) INTELLIGENCE AND SECURITY

1. Production of intelligence.

a. The Battalion Intelligence Section maintains very close liaison with the Intelligence Staffs of the 25th Infantry Division to obtain timely and essential elements of information. The latest reported information is obtained from these staff sections just prior to Battalion briefings. The Battalion S-2 obtains all available enemy information during the coordination briefing with the supported Brigades or Battalions. The enemy situation is verbally passed on to all commanders during Battalion briefings. Collecting information from various echelons provides the Battalion with fairly accurate information on enemy locations and strengths.

b. Aviation personnel continue to provide instant information on enemy activity and movement by rendering spot reports to the Battalion Operations Center when sightings are made. This information is relayed to the Intelligence Staffs of the 25th Infantry Division for evaluation and action as is deemed necessary. Spot reports are passed to 12th Combat Aviation Group over the Black Jack Spot FM net.

c. Procurement of adequate photo coverage of selected landing zones continues to be a problem area. The photo coverage inventory in the 25th Infantry Division photo library only covers about one half of the DTAO. If Division cannot provide the desired coverage, a visit is made to the III Corps Intelligence Section in SAIGON. Normally the coverage can be obtained from this office; however, a minimum of 3 to 5 days is usually required. Very often the tactical situation does not allow this much advance notice. A small photo library containing partial coverage of the Battalion area of operation is maintained where used photographs are stored for reuse in future exercises.

d. The Battalion Intelligence Section discussed the problem of obtaining photo coverage with J3 Reconnaissance, 7th US Air Force Headquarters, which has the responsibility of flying aerial photo missions in this area. The Air Force does maintain complete coverage of this Battalion's AO. With the high priority assigned an aviation battalion, a complete photo mission of the desired area can be obtained in 24 hours. The coverage is dispatched by courier to the Battalion and desired coverage is removed and mounted by the Intelligence Section, 25th Infantry Division, or the Battalion Intelligence Section. The unused portion of the mission is placed in the library.

e. Weather data received by this Headquarters often arrives too late to be passed to and used by the companies. Weather data received through the Signal channel has been discontinued because of its validity upon receipt. The most accurate and most frequently used source of weather information continues to be the Air Force Detachment located at CU CHI. A weather aircraft is dispatched each morning that a Battalion exercise is scheduled to provide the Air Mission Commander

with immediate accurate weather information. These data are utilized by the commander in making his decision on weather delays.

2. Use of Intelligence and Information.

a. The Battalion has had many aircraft hit by ground fire in support of exercises being conducted by the 25th Infantry Division. To provide both the Battalion and the Division coordinates of the exact locations at which aircraft drew fire, the intelligence section maintains special hit maps covering key areas. Information plotted on the charts is:

(1) Aircraft location.

(2) Type of aircraft.

(3) Altitude.

(4) Air speed.

(5) Date/time group.

(6) Distance and direction of fire from aircraft.

(7) Aircraft heading.

(8) Type of fire received and number of hits.

The above information affords the Battalion S-3 the opportunity of readily identifying areas from which concentrated fire has been received. This also results in guidance being issued not to over-fly certain areas unless necessary. The special hit maps are periodically shown to the Division Staff for study and action.

b. The intelligence information obtained from Division, Brigades, Battalions, and other sources continues to be of moderate benefit. Very rarely is intelligence data available confirming the presence of enemy forces in a landing zone area.

c. Weekly or bi-weekly intelligence reports or bulletins are not published by this headquarters. Intelligence must be timely and accurate in order to assist the commander. To provide him with the latest possible information, however, the Battalion has had its intelligence distribution increased. Distribution is made to all subordinate units by this headquarters. If items of interest are received by the Battalion Intelligence Section, and sufficient copies for redistribution are not available, the information is reproduced and then distributed.

3. Counterintelligence.

a. Destruction of unclassified waste continued to present occasional problems. The base camp has initiated a trash pick-up service resulting in printed matter being taken to an incendiary dump. To preclude this occurrence a large screened area has been constructed and all waste from the Battalion Headquarters and Headquarters Company is destroyed by burning within this enclosure. This system is very effective with much time saved in that trash does not have to be separated.

b. Recently the Battalion has been given the authority to grant SECRET clearances providing a favorable Local Files Check and a National Agency Check have been completed. Stringent control must be exercised in granting clearances on a "need to know" basis and only after a thorough check of an individual's records has been made. In some instances the National Agency Check was completed nearly two years ago. The individual's 201 file should reflect any derogatory information recorded since the National Check was made.

c. To insure that the Battalion Intelligence Section has properly implemented counterintelligence requirements, CI visits are made periodically by the 25th Division MI Detachment.

4. Miscellaneous.

a. Prior to all Battalion Combat Assaults a coordination briefing is conducted by the supported unit. At this time an aerial reconnaissance is made of the selected landing zones. Intelligence reports normally indicate the presence of Viet Cong forces within the vicinity of the landing zones. During the aerial reconnaissance, conducted eighteen to twenty-four hours prior to the scheduled combat assault, the landing zones are orbitted for extensive periods to obtain necessary information to finalize the forthcoming plan. The enemy forces are certainly aware of the US tactics employed and, realizing a combat assault will be conducted in the area at some future date, probably withdraw their forces to prevent contact. Once helicopters begin circling a landing zone the element of surprise is lost. One possible solution to the problem would be to introduce large scale, detailed photographs into the photo system. Photos of the selected landing zones could be studied pior to any reconnaissance being made to determine the approach azimuth, obstacles, and other necessary information. If an aerial reconnaissance is still deemed necessary, this could be accomplished by making one flight over the landing zone area.

b. To accomplish the mission of providing the commander with the latest intelligence information in addition to the normal S-2 duties, the three authorized prsonnel in Aviation Units intelligence sections are not adequate to successfully accomplish this mission. Higher echelon Aviation Units are not sufficiently staffed to provide current and accurate order of Battle information, therefore each

Battalion must collect and record this information as made available by supported units. To enhance the intelligence collecting capability, it would be a definite advantage to have one intelligence trained officer or NCO assigned to provide intelligence liaison to work with the supported unit order of battle sections.

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E. (U) OPERATIONS AND TRAINING

1. Operations.

a. Operations plans and orders. The 269th Combat Aviation Battalion fully employs the standard five pragraph OPLAN/OPORD for all Battalion controlled operations. Standardization of annexes and of the distribution system has facilitated preparation, reproduction, and distribution of plans and orders in as short a time as 90 minutes. Specific annexes have been added in the form of sketches of pick-up and landing zones, items determined necessary to be inserted in the OPORD from lessons learned. The habitual use of complete written orders for multi-company operations greatly simplifies the integration of non-organic aviation elements into an operation and insures the closest coordination of the aviation plan with that of the ground commander.

b. Supervision and coordination of tactical operations. In addition to the normal command, control, and coordination facilities found in all battalions, the 269th employs a permanent Battalion Operations Center (BOC) and a Battalion Command and Control helicopter. The Command and Control helicopter, commonly referred to as "C & C ship," is a UH-1H rotorcraft modified by the addition of a commander's console, AN/ASC-10, providing one additional UHF and two additional FM transceivers. This system affords commanders the luxury of much greater control through a selection of added communications channels.

c. Planning and integrating.

(1) Fire support in all airmobile operations conducted by this Battalion is coordinated through the Ground Commander and his Artillery Liaison Officer in the planning phase of an airmobile operation. Most expeditious control of artillery support has been found to be maintained through direct contact between the supporting artillery FDC and the ground commander aloft in the C & C ship. It has been found, also, that to insure continuity in command, the use of an alternate C & C is imperative.

(2) Pathfinder operations have continued on a basis consistent with tactical requirements. Pathfinders continue to organize pick-up zones for airmobile operations and maintain constant liaison between ground elements in the PZ and the Command and Control personnel. Pathfinders have been found more able to insure a successful operation in the PZ when they have been inserted into ground elements' positions on D-1. This affords the Pathfinder personnel sufficient time to brief ground forces on the location of loads, number of loads, pick-up formations, etc. This also insures that an aviation representative is present should any change arise affecting the tactical plan within the 12-24 hour period preceding the scheduled assault.

d. Overall command security. The physical security plans of the 269th Combat Aviation Battalion and all subordinate units are

integrated with the base camp defense plans of the major units garrisoned at CU CHI, TAY NINH, and DAU TIENG. Within the company areas themselves bunker complexes are constantly improved as are revetments for aircraft.

3. Battalion Operations Center (BOC). The BOC operates on a continous 24 hours per day basis. One officer and one enlisted man is on duty at all times during this period. Both are povided with FM-AM-UHF radio communications. These tranceivers are linked to the Battalion's subordinate units, to the Army Aviation Element (AAE), to II Field Forces Vietnam Tactical Operations Center, and to the Assistant Division Aviation Officer (ADAO) at the 25th Infantry Division's Tactical Operations Center (TOC). Communications with the 25th Infantry Division is by sole-user telephone. Missions are received from AAE and assigned to the units by BOC. Daily operations are constantly monitored by the BOC, insuring that all necessary action to coordinate activities, react to emergencies, and submit required reports, is, in fact, taken.

4. Training.

a. Training program.

(1) Training of Battalion personnel is in keeping with the operational requirements continually arising in an aviation unit. During the three month time frame, the Battalion received 23 AAMTAP quotas for courses in the (8) B, C, D models of the UH-1 helicopter, 3 quotas for the CH-47 aircraft, and 12 quotas for instruction in aircraft engine maintenance, to include the T-53, T-53-L-13, and T-55 engines. Five (5) quotas were accepted by the 116th AHC for training in the new AH-1G aircraft maintenance. The rising problems of tech supply were minimized by the fulfilling of 4 quotas for tech supply courses.

b. An AH-1G pilot transition class was scheduled to begin the last part of January, with the 116th AHC being assigned the responsibility of furnishing the aviators to be transitioned, but the class allocations were cancelled by 12th Combat Aviation Group at the last minute and the quotas given to another battalion.

c. Eight (8) Jungle Environmental Survival Training class allocations were charged to the subordinate units of this Battalion and were attended as follows: 116th AHC-2, 187th AHC-1, 188th AHC-1, 242d ASHC-2, 21st RAC-2. The courses were conducted in the Phillipines.

d. Aviation Training and Standardization.

(1) Primary training to newly assigned aviators is given at subordinate unit level. In-country orientations are given by company level instructor pilots, as are the various stages of training required to insure an aviator's proficiency in the techniques peculiar to combat operations in Vietnam.

[redacted]

(2) Standardization is maintained throughout the Battalion through 90-day standardization checkrides. These rides are given by company and battalion instructor pilots who insure adherence to the Battalion flight policies. Battalion standardization pilots continually monitor the standardization program by an aggressive policy of frequent flying with subordinate units.

F. (C) Logistics

1. Supply

a. Classes of Supply.

(1) Units at CU CHI, TAY NINH, and DAU TIENG receive a majority of Class I supplies by motor convoy. This is true for all classes. This method has proven satisfactory for CU CHI and TAY NINH; DAU TIENG, however, is a problem area. DAU TIENG is in a comparatively isolated location in relation to highway transportation. The only route out of DAU TIENG is open only to armed convoys. The route is subject to hostile fire and acts of sabotage as well as frequent flooding and washouts during the rainy season. The use of this route involves excessive time and mileage because the route is via TAY NINH. All vehicles making the supply runs to CU CHI or SAIGON must take this circuitous route. In a like manner all supplies destined for DAU TIENG must follow this route, thus placing DAU TIENG on the very end of the supply line. As a result fresh produce and dairy products are very scarce. Convoys normally do not go through to DAU TIENG. Supplies must be trans-loaded at TAY NINH to 25th Division trucks. This accounts for another day of in-transit time, increasing the spoilage of produce. Lack of refrigerated transportation between TAY NINH and DAU TIENG is another factor contributing to spoilage of Class I supplies. This has caused a sizable allocation of unit resources to the task of obtaining and transporting suitable produce. DAU TIENG's remote location has further caused commitment of man-hours and vehicles to parts and supply runs far in excess of the other units of the Battalion.

(2) All units maintain supply accounts with 1st Log Command supply and service units for Class II and IV. Units at CU CHI have drawn Class IV supplies through the 25th Division supply office. Increased USARV control of bunker and fortification materials has forced 25th Division to cancel all non-divisional requisitions for materials. Units of the Battalion stationed at CU CHI have established, or are in the process of stablishing, Class IV accounts with the 267th Supply Battalion, LONG BINH. This has caused a delay in obtaining materials and has slowed progress in revetment and shelter construction.

(3) Class III and V support is obtained through 25th Division or 1st Log Command units at the respective base camps. MIL-L-7808 oil proved to be in short supply during the early weeks of the quarter. Supplies since that time have remained good. Companies within the Battalion possess the resources to establish temporary refuel/rearm points to support Battalion operations from field locations. Supplies at these points must, however, be furnished by the ground units supported by the assault companies.

(4) Storage space continues to be at a premium for all units of the Battalion. Allocation of materials for self-help pojects has been curtailed. Base camp construction projects have been also suspended pending further study of needs. A recently completed USARV

Ad Hoc Study Group Survey of Base Facilities at CU CHI allocated no facilities whatsoever to the 242d Aslt Spt Hel Co. No estimate of construction time or completion date was indicated in the USARV study. Consequently all units in the Battalion are forced to rely heavily, some units almost exclusively, on Conex containers in order to obtain required storage space. Conex containers provide the versatility and security required to store a variety of material needing covered storage. Conexes offer flexibility to units who must displace or send elements to other locations. The constantly changing supply and storage needs of large and sophisticated units such as airmobile companies are best filled by the use of Conex containers. The increased interest in Conex containers by higher headquarters and the recently received directive to reduce the number of these containers on hand will present all units in the Battalion with a serious shortage of storage space.

b. Only one item came under regulated distribution, aircrewman body armor. The Brigade-wide redistribution of body armor calls for a level in each company to provide armor for only the minimum daily requirement of aircrews. While this serves to provide every unit in the Brigade with an equitable amount of armor, it places a strain on the unit's facilities in accounting for and issuing the body armor to the crews on a mission basis. Should the units suffer the loss of any armor because of crashes or combat destruction of aircraft, there is no back-up equipment available. In the case of such losses, some crewmembers would be forced to go without body armor. An increased supply and allowance of body armor is an essential requirement at this time.

c. Two programs are currently in effect regarding the turn-in of surplus equipment. One affects excess equipment, and the other is concerned with TOE/MTOE equipment found to be of no use in actual unit operations. The turn-in of excess equipment is still in the initial phases. The units have been required to submit a complete list of all equipment in excess of TOE authorizations. This information has been forwarded to 1st Log Command and USARV. All units are awaiting specific instructions regarding the turn-in of this equipment. These instructions are pesently being formulated by 1st Log Command. Units have also submitted requests to turn-in TOE/MTOE authorized equipment which has proven to be unnecessary in RVN. Approval for the turn-in of these items has been granted in most instances. Turn-in is currently in progress. This has been very beneficial to units in the Battalion. Additional storage space has been created by the turn-in of some items. Requirements for accountability, maintenance, and repair have also been reduced. This has not been an extensive turn-in of equipment; nevertheless, it has eliminated needless items.

2. Transportation and Troop Movement.

a. The 242d Aslt Spt Hel Co moved to CU CHI in November 1967 from DONG HOA. The move was made by truck and was well planned and

[redacted]

[redacted]

LOGISTICS

coordinated. Other units in the Battalion were levied to supply 2 1/2 ton trucks to supplement the 242d's organic capability. Contract carriers were used extensively in the transfer in order to provide rapid completion of the move. The use of contract carrier vehicles proved to be very effective. They were provided in the proper numbers, at the required times, and none were diverted from the assigned mission. Dependable transportation resources made this a rapid and successful move. A significant factor in the control of this unit's move was the availability of rapid communications. Problems could be resolved in their early stages, thus eliminating difficulties before they became compounded. A total of five movement days were required to completely transfer the 242d from [redacted] to [redacted].

b. The movement of the 21st Recon Airplane Copany to I Corps area was undertaken in January. The nature of the move was far more complicated than the short move of the 242d. The entire transfer of the unit was scheduled to be accomplished by air movement to the new location. The date of the move was not disclosed at the outset; therefore, only planning estimates could be prepared. Some peices of equipment were too large for C-130 aircraft. It was decided that this equipment would be convoyed from [redacted] to [redacted], where it would be shipped by C-133 aircraft. When the movement order was issued, the unit was scheduled on Priority I to receive six sorties per day, beginning 8 January 1968. The beginning was postponed to 9 January 1968, but the six scheduled sorties failed to show up on that day. On the second day only four of the six sorties arrived at [redacted]. Meanwhile, oversize equipment was convoyed to [redacted] for shipment by LST rather than by aircraft. This equipment embarked by sea on 11 January 1968. Because the move fell behind schedule, 269th Bn S-4 requested 12th Group S-4 to seek an up-grading of the priority to Combat Essential (CE) or Tactical Emergency (TE). The request was forwarded to [redacted], who in turn, indicated that [redacted] would notify the 25th Division Transportation Officer of a change in priority. As of 12 January 1968, no word was received by DTO. The number of sorties had fallen even further behind. On 12 January 1968, only one sortie carried equipment out. A second load was almost completely pre-empted by a USO Troupe. Other scheduled sorties were diverted before they arrived at [redacted]. Another message was forwarded from the 269th Bn S-4 requesting an up-grading of priority in order to meet the 15 January 1968 closing date established for the 21st TAC in the [redacted]. Although no word was received of a change in priority, sorties on 13th and 14th Jan 68 ran ahead of the programmed amount, providing sufficient transportation to complete the removal from [redacted] early in the morning of 15 Jan 68. Communication proved to be an obstacle in this move. Land line circuits between [redacted] and [redacted] are always extremely busy the officer-in-charge of the loading operations could not always report cancellation of sorties on a timely basis. Requests for change in priority received no acknowledgement, creating a doubt as to wheher the request had been received. In order to guarantee that a unit closes at its new location according to schedule, a higher priority must be assigned to the move from the very beginning.

[redacted]

[redacted]

[redacted]

3. Maintenance and Repair (other than aircraft)

Support to units based at CU CHI has continued to show improvement. Increased availability of parts and more rapid filling of requisitions have contributed to the improved status of vehicles and equipment. Some items remain in short supply, causing certain pieces of equipment to remain deadlined for prolonged periods. Every attempt is made to maintain a valid requisition on such items by all units. Brake shoes, particulary 3/4 ton, seem to be non-existent. Electrolyte for vehicle batteries remains an item of critical shortage. Ordnance support rendered at TAY NINH provides a much lesser degree of service and parts availabilty to the 197th than enjoyed at CU CHI. Support to the 1 8th at DAU TIENG is further reduced by a contact team of the 54[redacted]th DSU at TAY NINH. It is not of sufficient size or capability to cope with maintenance and repair parts difficulties at DAU TIENG. A request was made for the 1[redacted]8th to receive support from the 725th Maintenance Battalion units in DAU TIENG. This request was denied by 25th Division because the Battalion's limited resources were already strained by divisional unit requirements.

4. Services.

a. All permanent and semi-permanent construction has been suspended at CU CHI, TAY NINH and DAU TIENG. The USARV Ad Hoc Group study was submitted for the construction of base camp facilities at Camp C[redacted] CHI. The Ad Hoc Survey was unrealistic in its estimate of facilities needed by aviation units. The 242d Aslt Spt Hel Co was not allocated any facilities by the group. It is believed that this was an oversight in preparing the recommendation. At the time of the survey, the 242d was temporarily stationed at NINH HOA pending completion of their aircraft parking and personnel billeting areas, in CU CHI. A reclama has been submitted seeking approval of Tech Supply, Hangar and Aircraft washing facilities for the company. The construction of the aircraft parking areas, taxiways, and revetments has begun to exhibit serious defects. Shoulders along the taxiway have fallen away, creating hazards along the edges and a high crown effect on the center of the taxiway. Drainage is very inadequate and will compound the deterioration of the shoulders. Revetments were constructed on poorly compacted soil. Settlement has caused many of the revetments to lean outward. Return of heavy rains could cause them to topple. A request to correct these revetments was submitted to the Assistant Division Engineer, 25th Infantry Division. A follow-up request was submitted through 12th Combat Aviation Group to 1st Aviation Brigade. An engineer representative from 1st Brigade is scheduled to examine the deficiencies in the near future. As of this writing no response has been received from the 25th Division.

b. A recent change in base camp defensive shelter policy requires all shelters to be built underground, minimizing above ground exposure. The change form existing facilities to that required by the Base Camp Coordinator will result in a serious waste of manpower and

[redacted]

[redacted]

materials in re-doing a job which is complete or nearly complete in all unit areas. No design has been proposed by the Base Camp Coordinator, and consequently, most units are hesitant to start a program without guidance, fearing that a plan will be distributed at a later date. While construction of underground shelters has been directed, non-divisional units have been cut off from Class IV support at the base camps. This has required establishment of accounts at other supply points, delay caused by requisition, and expenditure of valuable man-hours. Experience at all base camp facilities where units of this Battalion are located have proven that underground shelters create severe drainage problems in the wet season. Complete waterproofing is virtually impossible. Standing water in the shelters creates a health and sanitation hazard. Additional materials required to provide adequate shoring of inside walls demand an extensive commitment of bunkers and barrier constuction materials.

c. Adequate supplies of fresh fruits and vegetables in DAU [redacted] is the most pressing difficulty in food service. The problem was discussed earlier.

d. Dust suppression is one of the major problems confronting the Battalion at this time. The dry season is well along in its course and has created a serious safety of flight situation throughout the area of operations. The extreme shortage of penaprime and dust control distributing equipment compounds the problem. Facilities at each base camp are taxed to the maximum to maintain dust control for hospitals, roadways, and air field. The extensive needs for penaprime application by aviation units cannot be met at CU CHI, [redacted], or DAU [redacted]. There are simply too many areas that require servicing to allow distributing equipment to offer more than minimal coverage. A tremendous increas in distribution capability is required. Field locations present a tremendous hazard and a great need for dust control. The forward location of the bases make supplying materials and equipment extremely difficult. The acute shortage of penaprime distributors at this time prevents their deployment to forward locations. Safety is jeopardized in these instances, and turn-around time on troop and supply lifts is greatly increased when flights are forced to land one ship at a time. An air-transportable, high-volume penaprime distributor must be developed to cope with the problem in those forward locations.

[redacted]

G. (U) Signal.

1. Communication installation and operations.

a. FM Radio.

(1) The following radio nets are operated by the Battalion.

(a) Battalion command net: This net is established between the BOC (NCS) and all subordinate aviation companies. The net is operational 24 hours daily. Aircraft radios will net with the Battalion FM net and enter the net when key personnel are operating away from the Battalion area.

(b) Battalion Courier Net: This net is established between the Pathfinders, who control the courier, and the daily courier. The net is used for the sole purpose of controlling the courier aircraft.

(2) The Battalion operates in the following nets.

(a) 12th Combat Aviation Group FM net: This net is used to pass command and administrative traffic. Key personnel can enter the net, via aircraft radio, when operating away from the respective headquarters. The operating hours are controlled by 12th Group (NCS).

(b) II FFV-AAE Secure Operation Net: This net is established utilizing the KY-8, an encryptive machine, to allow classified traffic to be passed. This secure net has provided invaluable results. Many maintenance problems have developed with the equipment installed in this net. Very often the problems were corrected without determining the cause of the trouble. The RT 524 unit provides the best service when operating the 50 KC band width in lieu of the 100 KC band width as prescribed in the FM.

(c) 25th Infantry Division Command Net: This net is used to monitor the Division net to provide tactical information.

b. AM Radio Net: UHF Battalion Command Net: The Battalion Operations Center and any aircraft UHF radio can oprate in this net. The net is used primarily as the Battalion Command Net during Battalion Operations. To preclude the excessive noise generated by the VRC-24, an aircraft UHF radio (providing excellent results) has been installed in the BOC. The VRC-24 is maintained for back up and contingency plans the Battalion may become involved in.

c. HF Radio Net: An AN/TRC-146 HF/SSB ground radio set has been issued to the Battalion and operated as required in the Battalion Operations Center. This well-designed, versatile radio set is ideal for fixed station requirement. The radio has improved the communication capability of this headquarters considerably allowing aircraft equipped

with HF capability operating great distances from this headquarters, to maintain contact with the Battalion. Telephone patches can be made with this set, however, to date this service has not been provided.

d. RATT: The Battalion has two VSC-2 single side band radios. Personnel assigned the Battalion Communication section operate the radio and enters the 12th Combat Aviation Group administrative and logistics net as directed by 12th Group (MCS). Secure teletype message can be transmitted. The double antenna provides the best results for this radio. In country maintenance facilities for this VSC-2 is almost non-existent and long dead line periods can be expected if maintenance problems develop. Recently the MRC-119 radio has been issued to the 116th Assault Helicopter Company and the 187th Assault Helicopter Company. The 196th Assault Helicopter Company is scheduled to receive a MRC-119 in the immediate future. The Battalion now has the capability of installing a Battalion RATT net, however, the companies are authorized sufficient qualified personnel to operate the equipment.

e. One land line teletype circuit is installed between the communication centers at 12th Group and Battalion. The circuit operates at maximum efficiency experiencing minimum outage. The communication center is operational 24 hours daily. The Group communication center will, providing traffic flow is low, patch one Battalion communication with another, thus establishing a direct circuit. This system has proven to be very helpful.

f. Telephone Communication:

(1) A SB-86 has been installed as the Black Baron Switchboard, and provides telephone service to 34 local subscribers and 8 common user trunks to other tributary or long distance switchboards. Common user trunks circuits are:

LOCATION	NUMBER
CU CHI	3
25th Aviation Battalion	1
116th Assault Helicopter Company	1
187th Assault Helicopter Company	1
196th Assault Helicopter Company	1
242d Assault Support Helicopter Company	1

The sole user telephone circuits between the Battalion Operations Center and the operations center of higher headquarters and each assigned company has been terminated in a SB-22 in lieu of the instrument. The installation of this system eliminated five telephones in the Battalion Operations Center, there by providing telephones for installation elsewhere. A constant visual and audible signal exists on the switchboard

until the call is answered. The new systems provide greater efficiency and flexibility.

(2) The Battalion Commander, S-3 and S-4 have local telephones on the CW CEI switchboard. To gain maximum benefit from the three lines several extensions have been installed.

2. SOI's are published by the Signal Officer, 12th Combat Aviation Group. Changes are published as they occur and made available to the Group Signal Officer. However, the Infantry Division normally does not notify Group of changes. Many problems have been created by having incorrect frequencies of supported units listed in the SOI. A possible solution would be for each aviation battalion to report all frequencies changed by units operating in its area immediately to 12th Group. A time delay of two or three days will be experienced before the published changes could be issued and entered into all SOI's. One-hundred and four SOI's are issued to Battalion headquarters with 10 remaining here and twenty-five being issued to each assigned company.

3. The signal detachments attached to the companies continue to progress and improve the maintenance facilities, and are providing excellent service to the aviation companies. Many defects within the avionics supply systems have been corrected, thus making more readily available required maintenance items. The personnel strength of the detachments has improved, however, a shortage of qualified repairman still exist.

4. Communication security is practiced throughout the Battalion. During the reporting period ASA monitored the telephone communication for a three week period. Excellent results were reported by the monitoring team.

5. Cryto facilities are only available at the Battalion Headquarters Crypto equipment is available for issue to the companies, and will be used in a Battalion secure FM net. Such crypto accounts have been established in each company, with each appointed company crypto custodian reporting directly to the Battalion crpto custodian, in lieu of the local crypto distributing agency in this area. On line crypto facilities are not planned to the subordinate companies.

H. (U) Aviation Medicine

1. Treatment - Aid Station Operations. The 431st Medical detachment (OA) dispensary which became operational on 9 November 1966 continues to function well at CU CHI, RVN. The 154th Medical Detachment (OA) dispensary which became operational on 2 May 1967 continues to do well at DAU TIENG, RVN. Two new dispensaries became operational during the last quarter of 1967. The 541st Medical Detachment (OA) became operational on 14 December 1967. The 269th Combat Aviation Battalion Surgeon's Office and dispensary became operational on 10 December 1967. The 242d Assault Support Helicopter Company arrived in CU CHI, RVN, during this quarter and has its medical support from the 431st Medical Detachment (OA).

2. Preventive Medicine and Immunization. Immunizations have been brought very near the 100% level throughout the Battalion. This has been accomplished by establishing a "shot" line at the pay line each payday, and has proved to be very effective. The weekly program of malaria chemophylaxis of USARV has been complied with. A peak incidence of falciparum malaria in the infantry units stationed at Camp RAHN, DAU TIENG, RVN, occured during late November and December. The malaria was known to have been innoculated during these units' operations in the field. As a result, there was a directive by the 25th Infantry Division, which this Battalion supports, concerning malaria chemoprophylaxis which obligated the 178th Assault Helicopter Company, located at DAU TIENG, RVN, to initiate and terminate a 28 day priod of Dapsone chemoprophylaxis for malaria. Veneral disease remains at a moderate level. A news-letter educational program on VD and other preventive medicine subjects has been initiated by one of the Battalion flight surgeons. Aviator flying fatigue continues to be a significant problem. During the month of December 1967, two companies of the Battalion flew over 5000 aviator flying hours, one over 4500 hours, one over 2500 hours, one over 1500 hours, and the last 700 hours. It is the opinion of the present incumbent of the Battalion surgeon's office that the number of hours is not the significant factor in the control of fatigue. Aviator fatigue is a complex of mission type, flying hours, hours waiting, and a period of rest. The aviator fatigue problem could be alleviated somewhat by adding a goal-directed rest period with the control of the number of hours flown.

3. Flight Physical Qualification. Annual physicals continue to be waived throughout USARV. Initial Class I and III flight physicals are accomplished on individuals entering flight status for the first time. The accomplishment of these examinations is difficult because of the lack of centralized equipment in the supporting medical facilities, i.e., the audiometer examination must be accomplished at DONG TAM, RVN, the Chest X-ray and lavoratory examinations must accomplished at CU CHI, RVN, at the 12th Evacuation Hospital and Dispensary of the 25th Medical Battalion.

4. Medical Evacuation. Aeromedical evacuation continues to be the primary and almost exclusive mode of medical evacuation.

5. Training. Airplane aid kits and individual survival kits are displayed in the operations of most companies of the Battalion. A monthly newsletter concerning preventive medicine concepts written for the men of the Battalion by one of the flight surgeons is being increased in the near future with each flight surgeon of the Battalion going to each medical unit and giving instruction periods in medical subjects on a bi-monthly basis. All personnel are licensed ambulance drivers. An increase in the number of aviation medical officer personnel occurred during this period to a total of four for the Battalion. Each (OA) Medical Detachment (3) has a physician and there is now a full-time staff medical officer.

6. Medical supplies and equipment. All standard, expendable medical supplies are readily available through either the 25th DISCO or the 32d Medical Depot at LONG BINH. It is programmed to consolidate supply requests through the Battalion surgeon's office to cut down on needless travel to LONG BINH and facilitate distribution of the supplies throughout the Battalion.

7. Sanitation. Each unit's medical support is still required to be responsible for the disposal of human waste. Supervision of Vietnamese nationals who perform the labor is carried out by each medical detachment. All companies have been making improvements in their mess operations, latrines, urinals, drainage, and living quarters. Inspections are carried out monthly, informally, and recommendations made for continued improvement.

8. Public Health. Aviation personnel going on R & R or DEROS are checked to be free of communicable disease and issued chemoprophylactic malaria tablets. Animal pets are reduced. General procedures of public health are outlined by the Preventive Medicine Officer of the 25th Infantry Division.

I. (U) Operation YELLOWSTONE

The largest airmobile operation conducted by the 269th Combat Aviation Battalion occurred on 8 December 1967. Six weeks prior to that date, the 269th Combat Aviation Battalion was alerted to support the 25th Infantry Division in Operation YELLOWSTONE. The support of YELLOWSTONE constituted one of the largest commitments of an aviation battalion to an airmobile operation in the history of combat assaults. Six airmobile companies were utilized to insert two full brigades of US infantry. Conjunctive with the assaults was the conduct of an enormous logistical airlift employing 33 medium CH-47 helicopters and a platoon of heavy CH-54 sky-cranes. A total of 200 logistical sorties were flown from rear area base camps to forward field locations in a steady flow of aircraft maintaining a planned two minute separation. The combined use of UH-1 aircraft in assaults and cargo helicopters in re-supply activities succeeded in placing in the Operational Area a great number of ground forces and an immense logistical back up in a relatively few number of hours.

To properly account for the sizeable achievement, credit primarily must be given to the luxury of planning time. The six weeks allotted were sufficient to insure that every facet of coordination had been accomplished and every contingency had been fully explored.

Certain problems were inherent in the planning phases of the assault. To rapidly implace the desired number of troops and tonnage of equipment into the LZ, forward staging areas were a necessity. Based on the logistical requirements of the participating aircraft and a large space requirement for cargo and troop massing areas, SOUI DI and DAU TIENG were selected for troop lifts, and TAN [illegible] for cargo.

The nearly 150 aircraft employed in the conduct of the operation presented a refueling requirement at each of the forward staging areas. Fuel points were established at SOUI DI and additional points were furnished to support the assault. To expedite the refueling processes, however, it was necessary to direct the type aircraft which would be permitted to operate at each POL area. Since all logistical resupply was to be flown from TAN [illegible], CH-47 and CH-54 aircraft would be serviced there. Lift ships of the six participating airmobile companies would refuel at the twenty points of DAU TIENG. Since only temporary fuel points had been installed at SOUI DI, refueling there was limited to gunships, smoke ships, and command and control aircraft. This proved a most satisfactory arrangement and, as such, presented no problem whatsoever during the conduct of the operation.

A very unique task confronted the Battalion Operations Section, however, was the scheduling of CH-47 and CH-54 resupply sorties. Over 200 sorties were required to be placed into an LZ according to an itinerary of 100 in the morning and 100 in the afternoon. Utilizing 33 CH-47 and 2 CH-54, a schedule was developed insuring maximum utilization of aircraft. Having little experience in large scale Chinook Operations from which to draw on, CH-47 sorties were scheduled two

minutes apart for the entire day at predetermined air speeds.

Another area heretofore somewhat unique to 269th operations was the controlling of the immense tonnage of cargo moved from the PZ at TAY NINH to the LZ at DAKTO. Extensive use of Pathfinder and Pathfinder techniques assisted immeasureably in successfully inserting the logistical trains needed for the continued conduct of YELLOWSTONE.

Overall, the operation proved a substantial achievement for the 269th. The ease with which the operation was conducted was a tribute to the planning and professionalism of the Black Baron Combat Aviation Battalion. The "lessons learned" as a result of this operation are interspersed in Section II as "Debriefing notes - Operation 42-67".

SECTION II--LESSONS LEARNED

INTRODUCTION

The LESSONS LEARNED, the section of this report which constitutes the major portion of this document, have been obtained primarily from debriefings held immediately following each operation conducted by the 269th Combat Aviation Battalion. Present at these debriefings were the Battalion Commander, the Battalion Executive Officer, the Battalion S3, and all other members of the Battalion primary and special staffs who participated in the conduct of the operations.

Many LESSONS LEARNED were also submitted by subordinate elements of this Battalion. Reference to the unit submitting the comment has been made prior to each item's listings. Other references, you will find, identify the debriefing of a specific operation. By identifying the source it is hoped that the reader will be more able to discern information which is applicable to Battalion operations from information which would be more pertinent to a Company or a smaller unit's efforts. Certainly, however, most entries are inter-related, and all well worthy of note.

4. (U) ARTILLERY

1. Source: Debriefing - Operation 41-67, in support of 3d Brigade, 25th Infantry Division.

Item: Artillery programming

Discussion: In planning the artillery support for this three company assault, infantry commanders made no reference to fire support to be fired from another artillery control zone into the AO. During the conduct of the assault, trajectories of incoming artillery interfered with the planned flight routes of the lift aircraft. Modifications to flight routes necessarily resulted.

Observation: During coordination conferences special emphasis should be placed on discussions with artillery representatives. The location of all planned artillery FSB should at this time be requested by the aviation element representatives.

2. Source: Debriefing - Operation 46-67, in support of 3d Brigade, 25th Infantry Division.

Item: Artillery Coordination

Discussion: During the conduct of this operation, one of the gunships supporting the airmobile assault was nearly hit by friendly artillery. Upon investigation, it was learned that the artillery was supporting a long range reconnaissance patrol operating in the vicinity of the airmobile assault. The effects of this uncoordinated artillery support could have been disastrous in the loss of an aircraft and crew.

Observation: It is essential that a responsible artillery representative be present at the coordination briefing. The artillery representative could then insure that the artillery tactical operations center would only clear those fire missions which would not interfere with the airmobile operation. He must also insure that all fire requests in the immediate area are directed to the proper source. This would preclude individuals, who are not abreast of the current situation, from granting clearance for fire missions.

B. (U) AVIATION SAFETY

1. Source: Lesson Learned - Safety Officer, 269th Combat Aviation Battalion Headquarters.

Item: Battalion units have experienced 10 engine failures since 1 December 1967 - 18 January 1968. 3 major accidents and 2 incidents resulted from these failures.

Discussion: In all of the major accidents within this period the aircraft were at an altitude of 700 feet or below and were over heavily vegetated terrain. It was observed that in most cases gunships travel to and from the operational area at an altitude below 1000' and often over rugged terrain when a better flight route is available.

Observation: Although gunship operations are normally flown at a low altitude and over all types of terrain, it is not necessary for them to travel at these altitudes, over bad terrain, when flying to and from refueling and rearming points. Therefore all companies have been directed to have gunships fly at an MEA (minimum enroute altitude) of 2000 feet over selected routes that would permit safe autorotation if an emergency condition is encountered.

2. Source: Lessons Learned - Safety Officer, 269th Combat Aviation Battalion Headquarters.

Item: This battalion has experienced 10 engine failures since 1 December 1968. All of these engines have been submitted for analysis and no results have been returned.

Discussion: All failed items are expeditiously submitted for analysis to the DS unit. The importance of a quick analysis of the failed part cannot be over emphasized. This is necessary to prevent a similiar mishap from occurring. Turbine engines are retrograded to ARADMAC for examination. Yet in all cases, shortly after departure from the DS unit, the engine can no longer be traced and no results on the analysis are being received.

Observation: An improved control system is urgently needed to expedite the shipment of engines to CONUS and to verify their whereabouts at all times. Only when this is accomplished will the cause of these failures be known and corrective action initiated to prevent further failure.

3. Source: Lessons Learned - Safety Officer, 269th Combat Aviation Battalion Headquarters.

Item: The dust control problem at airfields, POL sites, rearming points, and forward field locations is becoming increasingly difficult. This situation presents a visual hazard to pilots operating from these areas and has led to several mishaps, some involving the loss of lives.

Discussion: There have been numerous times where flights of helicopters and single resupply helicopters (CH-47s) have experienced great difficulty in maintaining separation from other helicopters in the flight or from other

vehicles or obstacles on the ground because of dust in the area of operation. Penaprime has been the most common solution to this problem and very favorable results are obtained when it is used. However the shortage of pmaprime dispensers and sometimes the liquid solution itself does not permit an adequate coverage of the areas requiring it in the time frame necessary.

Obserbation: A concentrated effort must be made by G-4 personnel to provide an adequate supply of the liquid and on the part of the engineers and PA&E for placing the dispensers on the proper locations when needed. It would also appear that better utilization of the equipment could be obtained if it were all in the hands of tho engineers. The PA&E personnel work an 8 hour day and the equipment should be utilized for 12-14 hours a day to provide adequate coverage. There also appears to be a shortage of dispensing equipment for this purpose. This is an urgent problem and until it is solved the lives of more personnel and expensive equipment may be lost.

C. (U) AVIONICS

1. Source: Lessons Learned - 188th Assault Helicopter Company - Avionics Detachment.

Item: APH-6 Ballistic Helmet

Discussion: This item continues to be a problem with most units. The helmet's main faults are its uncomfortable fit and poor quality control. When an APH-6 component fails, as it often does, repair parts are practically non-existent. Most avionics shops have come up with their own fixes to keep the ballistic helmets out of the repair shop and in the hands of the user.

Observation: a. Visors: This item is in short supply and the older APH-6 series visors do not fit properly. Instead of replacing a scratched visor, a bit of "Cleaning and Polishing Compound Plastic Type 1" (FSN 7930-634-5340) can be used to polish out most surface scratches. This is the same compound that is used to clean the plexiglass windows on our aircraft.

b. Cord and Plug: Another impossible part to obtain is the APH-6 cord assembly. It does not stand much hard use before the wires break inside the insulation. The lifespan of the cord can be lengthened by using a cable clamp (FSN 5340-286-9427) to secure the cable to the rear of the helmet. If the cord must be replaced an APH-5 cable assembly (FSN 5995-617-0885) can be used. This cable is shorter but will work and has proven itself longer lasting than the APH-6 cord assembly.

c. Comfort: If comfort is the problem, DA-MMO-10-6415-202-30/4 should help. This modification increases ear room, softens the earphone springs and installs softer chin and neck pads.

d. Microphone: Another interesting point is that the microphone assembly can be replaced with the older APH-5 microphone (FSN 5965-620-4955). The substitutions enable repair of the new helmet in the event the original parts are unobtainable.

e. Lost Parts: Many trips to the repair shop could be eliminated if the user would keep all external screws snug and keep the helmet in a protective bag.

2. Source: Lessons Learned - 188th Assault Helicopter Company - Avionics Detachment.

Item: ARC-51EX

Discussion: Alignment difficulties have occurred with AN/ARC-51 power amplifier modules. It has been found that many of these modules have sector plates in which the set screw works loose.

Observation: When this happens the sector plates rotate slightly, thus lowering

the transmitter's output power. Aircraft vibration aggravates this problem. The fix: a bristol wrench from the TK-105 tool box.

3. Source: Lessons Learned - 188th Assault Helicopter Company - Avionics Detachment.

Item: AN/TRN-25 Non-Directional Beacon.

Discussion: This unit has been using the AN/TRN-25 Beacon on a continuous 24 hour basis. Several problems have been encountered, the most significant of which is the need to replace blower motor brushes every two weeks. Soon to be available will be a brushless motor to replace the old design. The second problem is location of the actual unit. Despite its weatherproof construction, it has been found that reliability suffers unless the transmitter unit is located in a cool dust free location.

Observation: Good results have been obtained by placing our beacon in a bunker adjacent to the antenna site. Scheduled maintenance is a must for this beacon; this should include a bi-weekly change of all blower motor brushes, frequent cleaning of filters and adjustment of antenna guy wires.

4. Source: Lessons Learned - 116th Assault Helicopter Company - Avionics Detachment.

Item: Acceptance of aircraft.

Discussion: It has been the misfortune of this detachment to receive several aircraft with radios, mounts, control heads and other items missing and wiring in such condition that it is necessary to send the aircraft to support maintenance for rewiring.

Observation: Coordination between unit receiving aircraft and supporting Signal Detachment to insure a complete inventory and avionics check is made of aircraft prior to accepting same.

5. Source: Lessons Learned - 116th Assault Helicopter Company - Avionics Detachment.

Item: Need for 2 additional 35K20 personnel

Discussion: It has been observed that the overall effectiveness of shop maintenance personnel is reduced in that they are required to perform the duties of a 35K20 on the flight line when they can and should be working on equipment on the bench.

Observation: (unsolved) TO&E changes for the Signal Detachment (RL) authorizing 2 35K20 personnel or TO&E changes for the Assault Helicopter Companies authorizing 2 additional 35K20 personnel as the AVN ELEC EQ RPMN's duties are 24 hours a day here in RVN and with the current shortage of personnel (avionics), the detachment's work load increases even more.

D. (U) BIRD DOG OPERATIONS

1. Source: Lessons Learned - 21st Reconnaissance Airplane Company

Item: Use of HE rockets by O-1 aircraft

Discussion: A large percentage of the sightings made by "Black Ace" pilots involves one or two Viet Cong walking on a trail or a like number of sampans on a river in very remote areas. It is difficult for us to immediately and accurately engage this type of target. Heavy artillery, with the range capability necessary to hit these targets, is designed primarily for area coverage and usually has a minimum reaction time of ten (10) minutes or more. Destruction missions are ineffective and expensive. There are no light fire teams on call or even available on most VR missions in the War Zone "C" area. USAF air strikes, if requested, are normally delayed more than 24 hours. Normally the FAC's will not respond to small targets. Large targets often disappear before one of the above means can engage them. The USAF FAC's in the III Corps area have enjoyed considerable success in destroying small targets and disrupting enemy sytems. Frequently, O-1 aircraft have kept a large VC unit pinned down with HE rockets until airstrikes or artillery could react. A pull up altitude of 1,000 feet, as prescribed in our SOP, allows the targets to be engaged effectively and still keep the aircraft out of the effective range of small arms fire. In fact, it is found from observations of other O-1 units, that the enemy is less likely to fire upon an O-1 which is known to have a retalitory capability.

Observation: Carrying HE rockets on the O-1 would allow them to fix moving targets until artillery or other fires could be coordinated and in some cases effect destruction. This would allow us to engage targets we are presently unable to engage with timely or effective means. This could be accomplished without unnecessarily endangering our aircraft to small arms fire.

2. Source: Lessons Learned - 21st Reconnaissance Airplane Company

Item: Use of O-1 aircraft for mortar watch

Discussion: Black Ace pilots have realized limited success with over 3,000 hours flown on night mortar watch missions. The practice of requiring the mortar watch aircraft to be airborne 8 to 10 hours each night consumes a large portion of the available aircraft hours that could be used more effectively as daylight visual reconnaissance. The 3,000 hours flown have produced negligable significant sightings. VR which could be accomplished in conjunction with the mortar watch requirement is curtailed by the present policy at CU CHI and QUAN LOI of restricting the mortar watch aircraft to the confines of a small area throughout the night. This is necessary so that programmed H & I fires will not be restricted by check fires for the aircraft. The mortar watch aircraft have not proved to be an effective deterrent as evidenced by no significant decrease in the number of mortar attacks on camps supported by this system. The effectiveness of the mortar watch aircraft during actual mortar attacks is limited due to three (3) problem areas: (1) Lack of skilled observers - only the best AO's are able to spot the enemy mortars firing and plot their position in the darkness.

Most units choose to use their newly trained, TO&E, AO's for daylight VR. Most of the mortar watch observers are ground FO's and, in many cases, untrained enlisted men. (2) During an attack the AO is not allowed to control the counter mortar fire. Pre-planned counter fire is fired immediately and, when the observer arrives over the suspected area, he is unable to distinguish between friendly rounds impacting in the area and enemy mortar tube flashes. (3) In the majority of the cases, the observer is told to depart the area so that pre-planned counter mortar fire will not endanger the aircraft. In many such cases, the counter mortar aircraft had no useful function whatsoever.

Observation: Due to the large number of hours consumed and the limited success shown by the mortar watch program, mortar watch aircraft should be scheduled only when mortar or rocket attacks are imminent. At other times, there should be a pilot, aircraft, and observer on five (5) minute standby. When the aircraft is required to fly all night, there should be a coordinated check fire system so that visual reconnaissance can be accomplished in all quadrants of likely enemy activity. Only the most experienced AO's should be scheduled for mortar watch missions, and in the event of mortar attack, the AO should be given complete control of the counter mortar program. All guns should be fired only at his command.

E. (U) COMMAND AND CONTROL

1. Source: Lessons Learned - 269th Combat Aviation Battalion Headquarters

Item: Responsibilities within the C & C party

Discussion: Responsibilities within the C & C aircraft necessarily must be delineated. During the course of controlling an assault, numerous questions arise and numerous decisions must be made. To enter lengthy discussions takes time which neither the ATTF Commander nor the Air Mission Commander can afford.

Observation: A delineation of responsibilities within the command and control aircraft has been found a definite requirement to conduct an assault efficiently. All procedure problems are handled by the S-3 in the left seat of the aircraft. For example, discussions concerning the dropping of the mark, control of gunships, etc., should be handled by the S-3. Policy decisions, on the other hand, are the responsibility of the Air Mission Commander, since decisions of a more serious nature, certainly, should rest with higher authority. In addition, since the control of lift aircraft during an assault is basically a procedural function, all aircraft control should be in the hands of the S-3. This leaves the physical flying of the aircraft and direct consultation with the ATTF Commander in the hands of the Air Mission Commander. This assignment of duties within the aircraft has proven itself both successful and extremely effective.

2. Source: Lessons Learned - 188th Assault Helicopter Company

Item: Utilization of a C & C aircraft during tactical emergencies at night

Discussion: At 0400 on 2 January 1968, the 188th Assault Helicopter Company was scrambled on an emergency resupply mission. The aircraft departed in flights of five, one flight from DAU TIENG, the other from TAY NINH, where half the company was working on an operation.

The two flights arrived over KATUM, the pick-up point, a few minutes apart. They were unable to land immediately, however, due to the large amount of traffic in the area. After orbiting for about 15 minutes, they were finally able to land, with four ships, at one of the two pick-up areas to be utilized. The flight identified the PZ with the help of flashing vehicle headlights and flares dropped by one of the company's aircraft.

The situation at the LZ (Fire Support Base BURT), while not quite as hectic, traffic-wise, also presented problems. On final approach the aircraft were confronted by an unannounced airstrike just outside the fire support base's perimeter (the base was still under attack). It was later learned that the jets putting in the strike were making their passes from WEST to EAST, while our approach was from SOUTH to NORTH.

Observation: Confusion and delay at the PZ resulted when three helicopter companies arrived in the area at approximately the same time. All were working on different frequencies and contacting different units on the ground. A C & C

ship, briefed on the ground situation, and in control could have eliminated most of the confusion and greatly reduced the risk of mid-air collisions in this type operation. It is recommended that a Command and Control ship be utilized for all night operations, of an emergency nature, requiring one or more helicopter companies.

3. Source: Debriefing - Operation 42-67, in support of 3d Brigade, 25th Infantry Division.

Item: Ground C & C party

Discussion: The ground force C & C party consisted only of the Battalion Commander and an RTO during the conduct of this operation. Consequently, questions submitted to the Infantry Commander by the Air Mission Commander, which required immediate answers, went unanswered until the Infantry Commander established communications with the responsible elements. This time lag in such a complex and fluctuating tactical situation is unacceptable. Such questions as, "Do we have full suppression?", or, "Is the artillery preparation complete?", require immediate response.

Observation: Experience gained through the conduct of numerous airmobile assaults indicates that the optimum number of representatives comprising the ground C & C party consists of four personnel. Included in the party should be the Battalion Commander, the Battalion S-3, the Artillery Liaison Officer and an RTO. It has been proven that these four individuals are required to control an airmobile operation effectively and efficiently.

F. (U) CHINOOKS

1. Source: Lessons Learned - 242d Assault Support Helicopter Company

Item: Refueling of CH-47 Chinook and CH-54 Skycrane

Discussion: During large scale operations when numbers of CH-47 Chinooks and CH-54 Skycranes are being utilized, particular attention must be given to the refueling facilities. This includes accommodations, supply and quality of fuel.

As a rule of thumb the number of refueling points needed will normally be one-third the total number of aircraft involved in the lift.

The total amount of fuel required for the lift will be based on the consumption rate. The CH-47 Chinook requires 4000 pounds of fuel every two hours.

Fuel samples must be taken prior to the operation to insure the fuel is useable.

Observation: During the Artillery lift phase of operation YELLOWSTONE, engine starting problems arose in the two CH-54 Cranes. It was suspected by the aviators and crew members that the fuel was contaminated. Samples had been sent to LONG BINH but the results were not available. On the spot samples were made and contamination was determined not to be the cause, however precious time was lost. This points out the necessity for determining the quality of fuel early in the planning stage.

2. Source: Lessons Learned - 242d Assault Support Helicopter Company

Item: Damage to ramp extension caused by internally loaded vehicles

Discussion: Ramp extensions on the CH-47 Chinook are folding platforms located on the rear of the ramp and designed to allow vehicles and cargo to be driven or rolled into or out of the helicopter. On several occasions while internally loading three-quarter ton trucks the extensions have been broken or otherwise damaged. Records in this unit indicate 16 incidents since becoming operational on 15 September 1967. This damage was caused by overloaded vehicles combined with unsatisfactory terrain where stumps, ditches, holes and such are very common. When considering these factors, the angle the vehicle enters, the horizontal slant of the helicopter caused by the terrain, compounded by the overloaded condition, damage to the aircraft is very likely. In view of the above, the time lost loading and unloading, and the certainly that an engine failure would necessitate an immediate forced landing, it is recommended that loaded three-quarter ton trucks be rigged for external slinging whenever possible.

3. Source: Lessons Learned - 242d Assault Support Helicopter Company

Item: Aviator advisories by terminal guidance personnel

Discussion: It has become apparent in recent operations that ground advisory and terminal guidance personnel are not volunteering tactical information to aviators when radio contact is made. In almost every case the aviator must extract in the form of questions the information needed to avoid suspected enemy positions or friendly artillery fire. On several recent occasions the aviators were advised to approach from a certain direction after they were totally committed on an approach at low altitude under maximum gross weight conditions. To attempt an abort and subsequently go around in this low and slow configuration would only add to the aircraft's exposure time and possibly create other problems. It is recommended that terminal guidance personnel volunteer their advisories at the earliest possible time so as to give the aviators every possible benefit prior to committing themselves on an approach.

4. Source: Lessons Learned - 242d Assault Support Helicopter Company

Item: Foreign object damage

Discussion: Because of many foreign objects being blown in PZs and LZs by CH-47 rotor wash, there have been numerous instances of FOD in the CH-47 engine. In one instance, this has caused an engine failure. Flying foreign objects are also hazardous to ground personnel. The conditions are more prevalent in the dry season.

Observation: The supported unit commander should be alerted by AC's of the danger involved from flying foreign objects prior to landing in the PZs or LZs. If the hazardous conditions exist attempts should be made to have the ground personnel police the PZ or LZ.

5. Source: Lessons Learned - 242d Assault Support Helicopter Company

Item: Internal loading 3/4 ton vehicle

Discussion: Recently a CH-47 had an engine failure on take-off with a heavily loaded 3/4 ton vehicle. Considerable damage was caused to the aircraft and several personnel were injured. The CH-47 can not continue to maintain altitude with maximum gross loads during single engine operation, particularly during hot weather.

Observation: All 3/4 ton vehicles be rigged for external loading.

6. Source: Lessons Learned - 242d Assault Support Helicopter Company

Item: Operation in dust

Discussion: While operating in dusty areas, dust is a hazard to aircraft engines and also to crews. The possibility of losing ground reference, particularly with sling loads, exists when approaches can not be made to the ground. Night operations in dusty areas increase the hazards particularly if landing lights are used.

Observation: Because it is impossible to avoid dusty areas at all times, supported unit commanders should be continually advised by aviation unit commanders and aircraft commanders of material available to decrease dust in landing areas and of the hazards involved when operating under these conditions.

G. (U) FLIGHT SURGEON

1. Source: Lessons Learned - Battalion Surgeon

Item: There is within the battalion a continuous problem of skin infections which, for the most part, are due to fungus or combined fungal-yeast infections.

Discussion: These infections occur widely and persist even though adequate medical treatment is given.

Observation: As reported in the last ORLL, this problem is extremely responsive to the adequate cleaning of personal clothing.

Observation: It is still recommended that better means of cleaning clothing other than that of contract laundry service should be used. This cleaning process would be a better process if clothes were machine washed and dried rather than the hand washed and sun dried as is being done by the indigenous laundries.

2. Source: Lessons Learned - Battalion Surgeon

Item: Assigment of the flight surgeon as a function of the Battalion S-4.

Discussion: Because of the specialized interests of the Battalion S-4, it was felt in the past that the importance of the functions of the flight surgeon was considered in the lowest priority. Since the flight surgeon has been reassigned with primary reporting responsibility to the executive officer and the commander as a special staff officer, it is found that the commander is more fully aware of the importance of aviation medicine in his battalion.

Observation: Continued use of the aviation medical officer as a special staff officer with primary reporting responsibilities through the executive officer of the battalion is recommended.

3. Source: Lessons Learned - Battalion Surgeon

Item: Aviation requires a special type of medical support. This support requires personalized contact between the aviator and his physician. This support should be organic to the aviation battalion.

Discussion: At CU CHI triplication of medical support facilities exists for aviation units. This is considered to be imprudent. While it is felt that consolidation with non-aviation medical support units would be inappropriate, it is felt that consolidation between the three aviation medical support facilities at CU CHI should be carried out to produce a comprehensive, adequately staffed, and supplied facility. The hindering factor at present is the lack of a housing facility located near the flight line in which all three sections could be placed.

Observation: At CU CHI, the 25th Aviation Battalion medical officer and the 269th Combat Aviation Battalion medical officers should combine medical resources in establishing a consolidated flight dispensary which will render comprehensive aviation medical support on an area basis for CU CHI, TAY NINH, and DAU TIENG, RVN. The aviation medical officers assigned to the 187th and 188th Assault Helicopter Companies should remain with their companies to provide direct medical support.

4. Source: Lessons Learned - 145th Medical Aviation Detachment

Item: How to keep immunizations current month to month

Discussion: Immunization records are checked many times during the year, i.e., R & R, leaves, and before DEROS to CONUS. If these are deficient, an individual is interned, immunized and forced to wait the incubation period of the vaccine. This causes many inconveniences to both the Army and the soldier.

Observation: We have brought our immunization records in the 188th Assault Helicopter Company up to 98-99% completeness with the following simple procedure:

At monthly paylines a table is set up by a medical specialist to check the man's shot record card against a suspense file and before he will be paid he must have his shot record brought current. He is given his required vaccine immediately.

H. (U) GUNSHIP

1. Source: Debriefing, Operation 44-67, in support of the 3d Bde, 25th Infantry Division

Item: Gunship Reports

Discussion: On the marking run of this operation, the marking gunship making a low pass over the LZ, observed some tall straight rods protruding from the ground. These were reported to the C & C aircraft, and all aircraft in the flight were warned to pick their touchdown spots, being particularly wary of such rods as possible mine detonating devices.

Observation: The marking gunship is an invaluable asset from which to receive reports on conditions of LZ. In its first low pass to mark the touchdown point for the slicks, the gunship lead should scrupulously inspect the conditions of the LZ, immediately reporting unusual sightings to the Air Mission Commander.

I. (U) LANDING ZONES

1. Source: Lesson Learned - 116th Assault Helicopter Company

Item: Selection of LZs in jungle terrain

Discussion: The selection of LZs for combat assaults in jungle terrain is extremely limited. LZs that will accommodate one or more assault helicopter companies are rare and their locations are well known and well defended by the Viet Cong. LZs that will take a five ship formation are found more frequently and are usually lightly defended or not defended at all by the Viet Cong.

Observation: By selecting five ship LZs in jungle terrain the Air Mission Commander can capitalize on the element of surprise. By splitting the flight into two five ship flights with one minute separation the same number of infantrymen can be inserted into an LZ in almost the same amount of time as using a ten ship LZ. This has proven to be an effective way of minimizing hot LZs and taking maximum advantage of surprise and yet not reducing the total number of troops inserted.

2. Source: Lessons Learned - 116th Assault Helicopter Company

Item: Coordinating LZ times with artillery slips

Discussion: On numerous occasions during recent company operations last minute artillery delays have forced sudden changes in the LZ touchdown times. The reason for the delays are most often caused by:

1. Firing batteries being late in getting last rounds on the way.

2. The Command and Control ship not being able to get a "tubes clear" after the last rounds are on the way. In many cases a singular last round must be fired to clear the tubes.

3. The ground commander's dissatisfaction with the artillery prep and his resultant decision to extend the employment of the artillery.

Using the standard 2-3 minute RP, the flight usually sets up its approach from the RP. Since the flight is usually vectored to arrive at the RP concurrent with the last rounds on the ground, delay #1 and #2 above often result in the flight having to make an unplanned 360 degree turn at or inbound from the RP. When this happens, the effectiveness of the RP as a time control is greatly reduced as well as the final flight path compromised. If it is a short slip in time the flight is forced to alter its approach speed at a very critical time to accomodate the delay. Even in case #3, when a slip in the artillery occurs prior to the flight reaching the RP, the flight is forced to orbit the RP which can compromise the flight path into the LZ.

Observation: Since the artillery time of flight in any AO rarely, if ever,

exceeds 2 minutes, an ACP about 2 minutes from the RP set off at an angle to the final flight path has proven highly effective. It is used as a final time control and holding point. The flight path from the ACP to the RP can be altered to take up any minor time changes which become imminent towards the end of the prep. If a more extensive time change becomes necessary, a holding pattern can be entered with much less of a chance of compromising the final flight path. Most improtant, when the flight does arrive at the RP, it can begin an uninterrupted approach to the LZ.

3. Source: Debriefing, Operation 44-67, in support of the 3d Bde, 25th Infantry Division

Item: Mines in LZ

Discussion: Repeated insetions of ground forces into the LZ of War Zone "C" have indicated that a continual threat of the use of command detonated mines by the enemy exists in that area. To combat the employment of these mines, it has become policy whenever possible to employ the Air Force ordnance called "Daisy Cutters". This weapon, when delivered into an LZ, shears sticks and shrubbery upon which mines may be implaced. If this system is not available, efforts are expended to at least get an air strike and artillery preparation into the LZ. The results of nearly every ordnance system delivered, however, is craters in the LZ.

Observation: Whenever possible, in landing formations to LZ which have been prepped by artillery and air strikes, it is wise to land the flight in the vicinity of the higher concentration of crater holes. Should the LZ have been mined, the policy would afford the lift aircraft maximum protection by touching them down in an area in which any mines which might have existed, probably have been detonated, being within the dispersion radius of the bombs or artillery.

4. Source: Debriefing, Operation 1-68, in support of the 3d Bde, 25th Infantry Division

Item: Smoke marks

Discussion: In the marking of the LZ, two yellow smoke grenades were used. The light and wind conditions at the time (0700) were such that dust from an earlier insertion, coupled with a dissipating smoke screen, and refracting rays from a rising sun, completely hid the marking grenades. Had another color been used with the yellow, the touchdown point would have been easier to identify.

Observation: Since the effects of light and wind often hamper the identification of yellow smoke grenades, when two grenades are dropped to mark an LZ, the gun platoon leader will insure that the grenades dropped are of two different colors.

5. Source: Lessons Learned - 269th Combat Aviation Battalion Headquarters

Item: Frequency of successive lifts into an LZ

Discussion: It has been found that the minimum time required between successive lifts into an LZ by lift companies is two minutes. Any time frequency less than two minutes creates the problem of having troops maneuvering in the LZ as the next lift flight is on final approach. This constitutes a hazard to landing lift ships in that they are forced to attempt avoiding personnel while maintaining formation discipline.

Observation: Appropriate entries should be entered into the Battalion SOP to reflect a policy assuring the two minute separation.

6. Source: Debriefing, Operation 42-67, in support of the 1st and 3d Bde, 25th Infantry Division

Item: Fires in LZ

Discussion: The mark which was dropped on the initial insertion to identify the second LZ of YELLOWSTONE ignited the ground, causing a large fire. Rocket motors fired during the preparation prior to the insertion also started fires in the SOUTHWESTERN corner of the landing zone. With the onset of the dry season, this occurrence will become more and more frequent and continually a hazard. The obvious problem, of course, exists if the ground forces, once inserted, require an emergency extraction shortly thereafter. Should the fire have substantially increased, extraction might become extremely difficult, if not impossible.

Observation: Little can be done to prevent fires resulting from rocket motor burn out. Smoke grenades, however, can be offset from the desired location of the mark, and instructions given to the flight leader identifying the touchdown point as being so many meters from the smoke.

7. Source: Debriefing, Operation 2-68 in support of the 1st Bde, 25th Infantry Division

Item: Circling of LZ on reconnaissance flights

Discussion: In conducting the reconnaissance flight in the planning phase of this operation, several orbits were made over the LZ in attempts to find mutually identifiable reference points. The orbits continued as a discussion took place over the merits or demerits of a particular type approach.

Observation: A good possibility exists that continuous orbiting by one aircraft over an obviously open area capable of serving as a landing zone could be a substantial indication to any enemy forces on the ground that the area is a probable LZ. A possible solution would be orbiting at a greater distance from the LZ or making passes along a straight flight path.

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Observation: A good possibility exists that continuous orbiting by one aircraft over an obviously open area capable of serving as a landing zone could be a substantial indication to any enemy forces on the ground that the area is a probable LZ. A possible solution would be orbiting at a greater distance from the LZ or making passes along a straight flight path.

However, whenever possible, continuous orbits of an LZ for extended periods should be limited so as to preclude a possible tactical error in identifying a selected LZ.

J. (U) MAINTENANCE

1. Source: Lessons Learned - 116th Assault Helicopter Company - Maintenance Detachment

Item: UH-1 main rotor transmission damper mount brackets

Discussion: During initial inspection, (PE), many instances of cracked right and left hand damper mount brackets have been detected. All instances of cracked brackets have been with factory installed or replacement brackets of 2024T-3 material. Replacement brackets fabricated from 2024T-6 material have not failed.

It is felt that a large number of hard landings are not entered on the maintenance forms. This in turn causes points receiving undue strain during these landings not to be detected, and minor damage or incipient failure to go undetected until the next PE.

Observation: Replacement brackets fabricated and installed at the 392d TC Detachment are installed 3/16 close tolerance bolts, allowing any further replacements which may be required to be installed without removing the transmission, saving approximately 30 man hours per repair. Entries on maintenance form 2408-13 would alert maintenance personnel to possible damage or weakening in this area, allowing timely corrective action and improving aircraft availability.

2. Source: Lessons Learned - 188th Assault Helicopter Company - Maintenance Detachment

Item: Foreign Object Damage

Discussion: This unit is the only unit within the 269th Combat Aviation Battalion equipped with the UH-1 aircraft which utilize the T53-L-13 engine (FSN 2840-911-7685). While this engine provides more power than the L-11, which it replaces, it also causes more problems from Foreign Object Damage (FOD). This is caused, in part, by a greater airflow through the engine (approximately 30%) and thinner blades on the compressor. These blades are very susceptable to being damaged by even the smallest items being ingested into the engine, i.e., paper, rags, tips of cotter pins, etc. No problems were encountered with these engines during the rainy season. However, during the dry season we have experienced as high as nineteen cases of FOD in one month.

Observation: In order to overcome this problem this unit has instituted a vigorous program to make all the crewchiefs, mechanics, and pilots conscious of the problem and of ways to avoid it.

The following actions have been initiated to reduce FOD:

1. Daily inspection of sand and dust separator for security of latches. (If rivets are loose, they are immediatley replaced.)

2. Filters are cleaned and inspected at least once a day.

3. The shroud is inspected at least once each day for loose dzus fasteners.

4. Techical Inspectors are giving special emphasis to this area on each inspection.

Since the institution of this program, FOD has been reduced by about 75%. It is felt that if a 1/4 inch mesh screen were placed around the intake of the sand dust separator the problem could be further reduced considerably. This recommendation was given to the AVCOM representative on his last visit to the unit and they are waiting for an answer: EIR's are now being substituted on all cases of FOD.

3. Source: Lessons Learned - 187th Assault Helicopter Company - Maintenance Detachment

Item: Scheduled departure times were not being met because of last minute minor maintenance malfunctions.

Discussion: It is essential that all scheduled aircraft depart for a mission at the prescribed time. Delays resulting from minor maintenance malfunctions can, in fact, completely delay a whole mission. Most maintenance malfunctions encountered in the last minutes prior to takoff time were normally not of a serious nature and could be repaired within a few minutes. These problems were usually things such as low voltage batteries, small oil leaks, and electrical malfunctions. In addition, the requirement for a Technical Inspector to re-check specific tolerances upon request on worn bearings and assemblies caused delays. It had been unit policy in the past to have a specific "line crew" on standby in the maintenance area. However, the size of the aircraft parking area was so great that it was sometimes impossible for the Technical Inspector and his line crew to make a determination of a repair in time to insure that the aircraft would meet the takeoff schedule. To alleviate the problem and to provide a more responsive effort, an AN/VRC 46, FM radio was mounted on the Maintenance Detachment 1/4 ton truck and the line crew was positioned at a central location within the aircraft parking area with the 1/4 ton. Necessary tools and at least one battery were placed in the vehicle. Under this set-up, the lag between the time maintenance was notified and then responded was cut by almost fifty per cent. Delays experienced under this system have been negligible unless a maintenance problem developed which was serious in nature.

Observation: Aviation unit maintenance personnel in Vietnam must be fully cognizant of their responsibilities toward the operational mission of the unit. In this case, the assignment of a 1/4 ton truck equipped with a radio and qualified maintenance personnel on immediate standby can eliminate at least half of the minor maintenance malfunctions which occur

at the last minute. This will promote a smoother and more efficient beginning for each operational mission.

4. Source: Lessons Learned - 187th Assault Helicopter Company - Maintenance Detachment

Item: An excessive number of transmission input quill assemblies (FSN 1615-831-0303) were being changed

Discussion: During the month of December, approximately eight transmission input quills were changed because of excessive oil leaks. Not only was the transmission affected but the leaking oil was blown back into the engine inlet causing a build up of dirt and sand. The engine then developed a loss in available power. A sudden increase in replacements of this quill assembly required additional maintenance man-hours and at the same time availability of aircraft dropped. No suitable solution could be found to stop the leaks. The first assumption was that sand and dust were causing the seal to leak. However, this did not remedy the problem. While changing the engine on a UH-1D, it was suspected that the engine could be misaligned with the transmission. Upon completion of the alignment, the engine was determined to be 1/4" off. A program was then initiated to check the other aircraft and two other ones with the input quill leaking were found to be out of alignment.

Observation: Recommend that an engine-transmission alignment be required after each new engine installation.

5. Source: Lessons Learned - 187th Assault Helicopter Company - Maintenance Detachment

Item: UH-1C, 540 main rotor hub blade grips were binding causing excessive vibration

Discussion: UH-1C aircraft were non-available for flight because the main rotor hubs were binding excessively caused by premature failure of the teflon bearing located between the blade grip and the hub extension assembly. Currently, this bearing is inspected at 600 hour intervals. However, these hubs began requiring change after approximately 200-300 hours. Until a new seal is produced, to protect this bearing from dust and sand, the inspection interval must be reduced.

Observation: Inspection interval of the 540 main rotor hub should be every 200 hours. Replacement parts should be ordered well in advance in order to make necessary repairs.

6. Source: Lessons Learned - 187th Assault Helicopter Company - Maintenance Detachment

Item: Excessive binding in tail rotor pedals.

Discussion: On occasion some pilots had been complaining about intermittent binds in the tail rotor pedals. Normally this occurred on termination of the approach. Since the bind was intermittent, it was difficult to pin point the exact cause. Trouble shooting the tail rotor system did not always detect the cause. As a result, this type of bind was classified as the "mysterious" tail rotor bind. Further investigation finally determined that the tail rotor hub assemblies were the cause. The tail rotor grip bearings were found to have wear patterns. As the pilot pushed the pedal, the wear pattern was disrupted and caused a bind in the yoke assembly. Replacement of the tail rotor hub solved the problem. Since a direct exchange program is in effect for tail rotor hub assemblies, it is possible that some un-serviceable hubs are infiltrating back into the hands of the units.

Observation: That a closer check should be made by General Support units to stop the possible re-issue of unserviceable tail rotor hubs. Also that "mysterious" tail rotor binds can be solved if the tail rotor hub is checked for binds in the blade grip bearings.

7. Source: Lessons Learned - Maintenance Officer, 269th Combat Aviation Battalion Headquarters

Item: Lateral vibration, UH-1D helicopter

Discussion: Following a routine main rotor blade replacement, a UH-1D was found to have a lateral vibration that could not be corrected. After several hours of inspecting, tracking, and test flying, it was noted that the recessed washer, P/N 204-011-152-1, on the blade retention pin had been installed inverted which did not allow the raised portion of the washer to seat properly around the blade retention pin. This allowed the blade to lead and lag independently.

Recommendation: Insert caution note in appropriate TM -20 manual.

8. Source: Lessons Learned - Maintenance Officer, 269th Combat Aviation Battalion Headquarters

Item: N_1 and torque variations, T53 engines

Discussion: During normal operation, it was noted that the maximum power available varied by 3-4 psi torque and a corresponding change in N_1. Torque and N_1 fluctuations normally indicate a fuel control malfunction. Problem was resolved when the pilot's throttle was found not to have a cushion at the full open position. A check of the linkage revealed that the fuel control did not reach the stop when operating the pilot's throttle, but did reach the stop when operating the copilot's throttle, thus accounting for the power variations.

Recommendation: Insure that both pilot and copilot throttles are checked for full travel limits.

K. (U) MISCELLANEOUS

1. Source: Lessons Learned - 187th Assault Helicopter Company

Item: Use of contingency plans for downed aircraft recovery

Discussion: Whenever it becomes necessary to recover downed aircraft during the course of a tactical operation, a certain amount of confusion exists in the command and control aircraft. Some of the contributing factors are limited frequency available in the C & C aircraft and the necessity to learn the immediate area of the downed aircraft to continue with the operation. To facilitate a rapid recovery the maintenance aircraft is delegated this responsibility.

Observation: During the conduct of company operations the maintenance personnel will stay abreast of the tactical situation and coordinate directly with Pipesmoke personnel should it become necessary to recover downed aircraft. By utilizing the Pipesmoke UHF, the command UHF frequency remains free of unnecessary conversation. This procedure also insures an adequate briefing of recovery personnel, i.e., delivery point, release time, etc.

2. Source: Lessons Learned - 116th Assault Helicopter Company

Item: Use of assault and jump teams on airmobile operations

Discussion: During recent airmobile operations around village complexes the ground commander has requested that the ten lift ships be broken into two 5 ship flights. The first five ships are designated as the assault team, with the second lift of five being designated the jump team. The assault lift will come to the RP and proceed inbound to the LZ while the jump lift will orbit the RP. As the situation develops, or a mass exodus occurs from a side of the village, the jump team is lifted in to seal the escape routes.

Observation: The use of assault and jump teams has proven to be highly effective in reacting to the tactical situation developed in eagle flight operations around village complexes.

3. Source: Debriefing, Operation 44-67, in support of the 1st Bde, 25th Infantry Division

Item: Wind consideration

Discussion: During the monsoon season the prevailing winds in III Corps are from the SOUTHWEST and seldom greater than 6 knots. During the dry season, however, winds are generally from the NORTHEAST, and at 2000 feet, usually in excess of 10 knots.

Observation: Since enroute altitudes for Battalion airmobile operations

are, by policy, 2000 feet, the effect of this prevailing wind condition should be considered in planning any flight legs in excess of 10 minutes.

4. Source: Debriefing, Operation 43-67, in support of the 3d Bde, 25th Infantry Division

Item: Downed aircraft

Discussion: Specific SOP regarding downed aircraft procedures are defined in each operations order published by this headquarters. During this operation one chalk in a flight of ten aircraft had an engine failure lifting from an insecure LZ. His wingman immediately followed the downed aircraft in. The wingman had no infantry personnel on board with which to assist in securing the aircraft which was now on the ground. In fact, the second ship did little more than hover in an insecure area unnecessarily exposing the two aircraft to damage by enemy fire, accomplishing, in fact, nothing.

Observation: Established procedures dictate the action to be taken by aircraft in the event of an emergency. Specific crews and ground troops are placed on standby in pick-up zones to serve as security forces. Gunships on station can insure the initial security of a downed aircraft. As soon as the ground forces are inserted, the problem is further alleviated. Certainly the only thing a wingman can hope to do in following another ship down is lose two ships instead of one. This would certainly have been evidenced had the area been hot.

5. Source: Debriefing, Operation 43-67, in support of the 3d Bde, 25th Infantry Division

Item: Airfield Control

Discussion: In large scale operations staging from airfields with towers, a recurrent problem exists in the control of these airfields. Pathfinders habitually control the arrivals and departures of aircraft in the pick-up zones and when the pick-up zones are airfields with operating towers, difficulties frequently ensue. Invariably just as a lift flight of 20 ships is cleared in to the PZ by Pathfinder personnel, the tower clears a C-130 into the traffic pattern.

Observation: It has been found to be quite a satisfactory solution to coordinate with tower authorities at the planned pick-up zone and have the tower operators transfer airfield control to the Pathfinder elements. It has been found most efficient to have this transfer executed no later than five minutes prior to the scheduled arrival of an inbound lift flight. This insures that unity of control exists in the pick-up zone area and precludes the hazards and confusion which results in fixed wing and other aircraft landing at the same time and in the same area.

6. Source: Debriefing, Operation 43-67, in support of the 3d Bde, 25th Infantry Division

Item: Non-availability of slings and rigging equipment for ARVN

Discussion: In planning for today's CH-47 lift of ARVN heavy equipment, it was discovered that ARVN forces are not authorized rigging equipment for external loads.

Observation: In planning ARVN equipment lifts, it must be resolved from where the ARVN will obtain the rigging, and how much prior time is required to rig the loads. In this operation, had the Chinook unit not been fortunately made aware of this situation in advance, considerable problems and delays would have resulted.

7. Source: Debriefing, Operation 47-67, in support of the 1st Bde, 25th Infantry Division

Item: Commitment of Spare Aircraft

Discussion: During this operation, the spare aircraft from each flight was assigned resupply missions. Although these commitments were to terminate prior to the lifts, we found that during the airmobile assault, the spare was still being utilized. In effect, neither flight had a spare aircraft readily available during a portion of the operation.

Observation: The case in question is another reminder that constant guidance to supported ground elements is necessary to insure the success of airmobile operations. Had there been an urgent need for a spare aircraft in this operation, a critical situation may have resulted through improper use of airmobile assets. In the future, any extraneous commitments for aircraft will be deducted from the lift aircraft in order to insure that a spare aircraft is available.

8. Source: Debriefing, Operation 42-67, in support of the 1st and 3d Bde, 25th Infantry Division

Item: Safety hazard of rubberized matting

Discussion: SCUI DA airstrip, physically built of dirt fill and rock, and covered by rubberized heavy duty matting, presented a particular problem during YELLOWSTONE. An armed cavalry gunship, attempting take off, dragged its skids over the rubber, piercing it and tearing it as it moved. Aircraft hovering over the area further disturbed the matting until it rippled from the rotorwash and rose into the ground cushion of hovering aircraft. In one instance it nearly blew into a tail rotor, creating a potentially serious and hazardous situation. Aircraft were warned of the danger prior to their landing and few further problems ensued.

Observation: The condition of temporary runways habitually used as staging areas for airmobile operations should be periodically checked. As in the case of SOUI DA, a year of weather stress created by a dry season and monsoons had caused severe deterioration in the runway material. The infrequency of its use as an active area caused little concern for its condition until it finally became an aviation hazard.

9. Source: Debriefing, Operation 42-67, in support of the 1st and 3d Bde, 25th Infantry Division

Item: Use of smoke in early morning hours

Discussion: During the conduct of the initial insertion of Operation YELLOWSTONE, two smoke ships were used to screen the SOUTH side of an EAST to WEST LZ. The wind was from the NORTH at no more than 2 knots. One smoke ship made a pass, followed immediately by the other. Initially the smoke hung in place, but with a sudden 180 degree wind shift, the thick two layers drifted back slowly over the LZ partially obscuring it for subsequent lifts. This occurred in an early morning calm of 0630 hours.

Observation: The use of smoke should be scrupulously considered in full realization of possible temperature inversions and wind shifts in the 0530-0700 range hours. Winds at this time are often calm and subject to large directional changes.

L. (U) PATHFINDER

1. Source: Debriefing, Operation 1-68, in support of the 3d Bde, 25th Infantry Division

Item: Pathfinder representation

Discussion: Normally coordination instructions or LNO instructions are given the day prior to the scheduled conference itself. Instructions were received at approximately 0900 of the day of the conference. The scheduled conference was to be conducted at 1300 hours. All key personnel were available except the Pathfinder representatives. The Pathfinder CO and NCOIC were not present in the area.

Observation: In view of the continual possibility of an operation being called at any time, it is most adviseable to retain one Pathfinder representative, experienced, and capable of coordinating with infantry personnel, in the battalion headquarters vicinity at all times. This will assure that the primary agency responsible for PZ control is, in fact, always available.

2. Source: Debriefing, Operation 42-67, in support of the 1st and 3d Bde, 25th Infantry Division

Item: Individual mission aircraft in POL areas

Discussion: Pathfinder personnel were employed in the POL area at DAU TIENG to control arrivals and departures of lift aircraft and single ship traffic. Specific times were selected for the refueling of lift aircraft during the conduct of the assault. On the initial entry of two flights into DAU TIENG, an aircraft on a single ship mission was in the process of refueling. Before contact was established, (the ship was not on the Pathfinder control frequency), crucial moments had already been consumed. It must be understood that in the refueling of two lift companies of ten ships each at 20 refueling points, the delay of one or two aircraft by other ships refueling but not participating in the operation results in the delay of the entire two companies.

Observation: Henceforth in POL areas controlled by Pathfinder personnel during the conduct of an airmobile operation, no aircraft on a single ship mission will be permitted to refuel for a time period lapsing from five minutes prior the scheduled arrival of the lift aircraft to the time the flight departs the POL area.

3. Source: Lessons Learned - 269th Combat Aviation Battalion Headquarters

Item: Fire hazards

Discussion: When smoke is utilized, care must be taken to avoid starting brush fires or masking the land points. Smoke should be used

sparingly and only in response to an aviator's request for help in locating or identifying his site.

Observation: Smoke grenades should be placed into a metal ammunition container welded to the top of a 4' long metal rod, planted adjacent to a landing or load point. When possible, mark landing sites by use of a signal man wearing a day-glo vest.

M. (U) PUBLIC INFORMATION OFFICER

1. Source: Lessons Learned - 269th Combat Aviation Battalion Headquarters

Item: Command information

Discussion: The Command Information Program of the 269th Combat Aviation Battalion has been extremely effective. Dissemination of Command Information Material is accomplished largely through the Message Center facilities available. Material received from higher headquarters is broken down proportionaltely into unit distribution. Pertinent material from higher headquarters is extracted from the fact sheets and written in a journalistic style for incorporation into the Battalion newspaper, BLACK BARON RELEASE. At unit level, the Command Information topics are given in several ways: through formation briefings, bulletin board postings, and through the unit and Battalion newspapers.

Observation: Under the tactical situation here in Vietnam, it has been difficult to conduct regular classes on Command Information. The most effective system is the one presently employed.

2. Source: Lessons Learned - 269th Combat Aviation Battalion Headquarters

Item: Public information

Discussion: The Public Information Program is oriented towards giving maximum coverage to the Battalion and the individual soldier. Daily aviation summaries are submitted by units assigned. The summaries are combined and phoned into USARV IO. The USARV IO in turn publishes a daily news report that is distributed to several large newspaper syndicates.

a. The summary often incorporates stories on individual feats as well as unit accomplishments. The results thus far have proven effective with considerable coverage being given to the BLACK BARONS.

b. There are several papers published throughout the chain of command. Stories of a feature type and/or immediate news release stories are written to include names of units and individuals, and are forwarded to three separate sources for consideration. All three sources have authority to have stories "Cleared for Release". At least one story is sent out to all three sources per day. In addition, a local battalion newspaper is published on a bi-monthly basis. The paper includes local items of interest, current news releases, Command Information, and a Chaplain's section for the purpose of Character Guidance.

Observation: Because the Information Field is extremely competitive, timely and accurate new releases must be made a standard practice. It has been noted that publication of Aviation-oriented articles can not

be made at the expense of Infantry Divisions. A lack of photographic capabilities has been a major problem in getting the Aviation story told. Larger infantry units have a greater capability, and have been subsequently able to get better publicity, oft times overshadowing the aviation role.

N. (U) PICK-UP ZONE

1. Source: Debriefing, Operation 47-67, in support of the 1st Bde, 25th Infantry Division

Item: Landing formations in pick-up zones

Discussion: During the briefing for this operation, the assault helicopter companies participating in the lift were instructed to land in the pick-up zone on a heading of 045° in a heavy left formation. Mention was made, however, that there were some obstacles to be avoided during final approach and that discretion should be utilized. Consequently the flights inbound to the pick-up zone landed on a 065° heading in a heavy left formation. This resulted in the supported troops having to move approximately 100 meters to load their respective aircraft. Valuable time was utilized unnecessarily and had the troops been under fire, casualties would have resulted.

Observation: This situation could have been alleviated had the aircraft landed at the pick-up zone in a staggered trail formation, rather than a heavy left. It has been found that it is extremely difficult to efficiently load troops, unless highly trained in the loading of aircraft, when utilizing the heavy left and heavy right formations. Consequently this battalion will use, whenever possible, the staggered trail formation in the pick-up zone. In addition, the predetermined landing heading has been dictated by both the AMIF Commander and the Air Mission Commander. This heading should not be deviated from without the specific consent of the C & C ship.

2. Source: Debriefing, Operation 2-68, in support of the 1st Bde, 25th Infantry Division

Item: Alternate PZ

Discussion: The PZ scheduled to be used for the lifting of troops for this assault was approved on a temporary basis. Since the PZ was extremely dusty, it was agreed that either it would be soaked down so that it could be used without endangering the lift aircraft landing there, or another PZ would be used. The proximity of this PZ to a runway, left it assumed that, if the PZ were not properly prepared, the runway would be used. Since the runway had on many previous occasions been mortared when high concentrations of troops and aircraft were present, this, in reality, would not have been a good alternate.

Observation: Of primary importance if a decision can not be made on the selection of a PZ, is the selection of an alternate. The fact that a PZ was selected pending specific dust control measures being taken, could have resulted in considerable confusion had the dust preventive requirements not been met. The infantry would not have known where to go immediately had recourse to an alternate have to have been taken. The planning and movement time would probably have

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resulted in an unnecessary and extended delay, possibily terminating the operation. If an alternate PZ is even considered in the planning, its location must specificially be determined and agreed upon, and it must be capable of meeting all the requirements of a primary PZ.

O. (U) PLANNING

1. Source: Debriefing, Operation 45-67 in support of the 3d Bde, 25th Infantry Division

Item: Employment of L-11 and L-13 equipped aircraft

Discussion: The UH-1H, equipped with the L-13 engine has substantially more power than the UH-1D. In employing two companies jointly in one operation, the power differential is most obvious in climb-outs with loaded aircraft. The L-13, of course, greatly outperforms the L-11.

Observation: In operations having separation of lift companies as a critical factor, i.e., quick turn-around times from PZ to LZ wherein separation of lift companies is a necessary requirement, it is expeditious to have the company which has L-11 engines lead the operation. When the L-13 equipped ships lead the assault, the L-11 aircraft spend the entire operation attempting to catch up. This effects formation discipline, accuracy of position reports, and the general efficiency of the second lift company, since its every maneuver is executed hurriedly.

2. Source: Debriefing, Operation 46-67, in support of the 3d Bde, 25th Infantry Division

Item: Experienced personnel on reconnaissance

Discussion: Prior to the conduct of this operation, a late change in the ground tactical situation necessitated a hurried reconnaissance. Because experienced personnel were present on the reconnaissance, a detailed briefing and reconnaissance were waived in order to adhere to a specified reaction time.

Observation: The fact that only experienced personnel be taken on the reconnaissance cannot be overemphasized. With this experience present, the flexibility of the airmobile operation remains a primary asset.

3. Source: Debriefing, Operation 44-67, in support of the 1st and 3d Bde, 25th Infantry Division

Item: Landing direction

Discussion: In order to conform to the ground tactical situation, both flights landed downwind in the landing zone. In the event the winds had been severe, this would have necessitated an immediate change in the landing direction, thus changing the ground tactical situation. In the ensuing changes, confusion may well have resulted and limited the initial effectiveness of the combat assault.

Observation: It is felt that the ground commander must take into consideration the prevailing winds in South Vietnam and incorporate them into the ground tactical situation. Since the wind is usually from the

NORTHEAST in the dry season, the ground commander could plan his troops' deployment in the pick-up and landing zones to conform to these flight routes and thus insure a safer and more effective operation.

4. Source: Debriefing, Operation 1-68, in support of the 3d Bde, 25th Infantry Division

Item: Flight Separation

Discussion: In the employment of two or more helicopter companies on one operation, it is consistently evident that some companies shoot approaches to LZ faster than others. During this operation, the lead company, the slower of the two, caused the second company to nearly initiate a "go-around". The separation between units specified in the OPORD was 45 seconds.

Observation: 45 seconds is not sufficient time to preclude a possible "run over" of the lead company by the second. This is especially true if the two units have a pronounced airspeed differential on final approach to an LZ. To insure that correct spacing is maintained, no less than one minute should be scheduled as a separation time between flights in combat assaults conducted by the battalion.

5. Source: Debriefing, Operation 42-67, in support of the 1st and 3d Bde, 25th Infantry Division

Item: Control of POL flow

Discussion: Flow rates on refueling pump systems often have a variable speed, i.e., idle and a full flow. In a major operation where refueling time for lift aircraft is critical, it is of paramount importance to insure that the correct flow rate is set into the pumping system. In today's operation, the refueling of one unit took an excessively long time. The primary reason for the delay was the POL pump's emitting fuel at the slower idle setting.

Observation: The slight delay in the scenario could have been prevented had an S-4 representative been present at the refueling point to insure the correct flow rate during the high intensity refueling periods.

6. Source: Debriefing, Operation 42-67, in support of the 1st and 3d Bde, 25th Infantry Division

Item: Responsibility for POL

Discussion: II Field Forces placed the requirement of supplying fuel for the aviation elements participating in YELLOWSTONE upon the 1st Logistical Command. The two locations requiring alterations to their then existing fuel capabilities were DAU [illegible]NG and SOUI DA. The required

pumps were installed at DAU TIENG, but no preparations were made at SOUI DA. Assistance from the 1st Logistical Command could not be received, and resulted in the personally supervised installations of fuel points by the 269th Battalion's S-4 section. Had it not been for the concerted effort of this staff section, refueling processes on D-day would have been severely handicapped.

Observation: It repeatedly appears that in airmobile operations, regardless of which ground unit or agency is given the responsibility to support aviation elements, enough scrupulous monitoring of responsibilities can not be had to insure that such responsibilities are fulfilled. Too often reliance on other than aviation units results in delays or errors in the preparatory phases and conduct of operations. In the case in point, had the lack of POL supplies not been rectified by D-day, the success of Operation [redacted] could have been severely effected.

7. Source: Debriefing, Operation 42-67 in support of the 1st and 3d Bde, 25th Infantry Division

Item: OH-23 parked in LZ

Discussion: After the initial insertion of ground forces into the LZ at [redacted], an OH-23 pilot, not aware that successive insertions were planned into the area, parked and shut his aircraft down in the geographic center of the landing zone. Successive lifts were handicapped in their final approach by the positioning of this aircraft, and the situation posed a safety hazard until the aircraft was finally removed.

Observation: On large scale operations of this nature, all aviation elements organic to or supporting the major unit should have representatives attend the final operation briefing. Representatives may then return to their units and brief pilots scheduled to fly missions in the operational area during the time frame of the assault, thereby precluding occurrences such as this one.

8. Source: Lessons Learned - 269th Combat Aviation Battalion Headquarters

Item: Operations in the vicinity of the Cambodian border

Discussion: The Cambodian border, marking the WESTERN limits of the III CTZ, is, in the War Zone "C" area, heavily covered by jungle or thick wooded areas. Certain clear areas do exist into which combat assaults are occasionally made. Planning assaults into these clear areas, bounded by heavy jungle which extends into Cambodia, is worth positive scrutiny. The Viet Cong supply routes are generally interspersed through these wooded areas and offer not only concealment, but also a good tactical advantage for firing at assaulting lift ships on final approach to the LZ.

Observation: Approaches should be planned to insure as little exposure on final approach and paralleling tree lines as possible. This would preclude the enemy from establishing fields of fire and having a tactical advantage over an inbound flight.

9. Source: Debriefing, Operation 2-66, in support of the 1st Bde, 25th Infantry Division

Item: Operations in War Zone "C"

Discussion: Operations in War Zone "C" have indicated that the enemy forces possess a considerable anti-aircraft capability in the form of 50 caliber automatic weapons. In today's operations, ceiling limitations restricted the flight to an enroute altitude of either 700 feet below the cloud layer, or at 1500 feet on top. Necessity finally required that the flight be brought in at 700 feet indicated. This is too close a range to enemy positions housing 50 caliber weapons.

Observation: Initially it must be understood that with the limited instrument proficiency of aviators in lift companies in Vietnam, it would be inviting disaster to require a let down in formation flight through any overcast condition. Secondly, with the 50 caliber potential of the VCA forces in [redacted] rovince, it is most advisable to maintain at least 1000 feet absolute over the terrain. This altitude can be varied dependent of the number of lift aircraft, i.e., an enroute altitude of 800' would be acceptable for a flight of 10, whereas an absolute of 1000' is an added insurance to a flight of 20. Of course, the tactical situation would certainly dictate exceptions this ruling. If a tactical emergency exists such as an extraction of forces in heavy contact, there is no question that even low level techniques could be used.

P. (U) SUPPRESSION

1. Source: Lessons Learned - 1[illegible]7th Assault Helicopter Company

Item: Supression prior to smoke aircraft making its smoke run

Discussion: During combat assaults the smoke aircraft will often draw fire while making the smoke run prior to the lift aircraft reaching the LZ. Since the area where it's expected that the slicks might draw fire is the area being smoked, the probability of Smokey drawing fire is increased. An effective way of reducing the vulnerability of the smoke aircraft has been by having one or more gun ships concentrate their final prep along the flight path that the smoke aircraft will fly.

Observation: A gun ship prep just prior to the smoke run has been found to effectively reduce the vulnerability of the smoke aircraft.

2. Source: Debriefing, Operation 1-6[illegible], in support of the 3d Bde, 25th Infantry Division

Item: Suppression and the smoke ship

Discussion: Two points are worth considering in smoke ship operations in support of combat assaults. During today's assault the smoke ship broke to the left remaining low level and screening the periphery of an adjacent tree line. The lift aircraft were authorized suppression and, firing through the smoke and at a greater range, nearly hit the smoke aircraft.

Observation: In all operations employing the smoke ship, aircraft commanders will orient the gunners/crew chiefs on the planned flight path of the smoke aircraft. Gunners and crew chiefs must be reminded to stay abreast of the location of the smoke ship and insure they aim away from it. In addition, the C & C aircraft itself is in a good position to observe the tracer direction of the fire from the lift ships. If it appears an obvious hazard, vectors can be given the smoke ship to preclude its getting hit.

P. (U) SUPPRESSION

1. Source: Lessons Learned - 187th Assault Helicopter Company

Item: Supression prior to smoke aircraft making its smoke run

Discussion: During combat assaults the smoke aircraft will often draw fire while making the smoke run prior to the lift aircraft reaching the LZ. Since the area where it's expected that the slicks might draw fire is the area being smoked, the probability of Smoky drawing fire is increased. An effective way of reducing the vulnerability of the smoke aircraft has been by having one or more gun ships concentrate their final prep along the flight path that the smoke aircraft will fly.

Observation: A gun ship prep just prior to the smoke run has been found to effectively reduce the vulnerability of the smoke aircraft.

2. Source: Debriefing, Operation 1-67, in support of the 3d Bde, 25th Infantry Division

Item: Suppression and the smoke ship

Discussion: Two points are worth considering in smoke ship operations in support of combat assaults. During today's assault the smoke ship broke to the left remaining low level and scorching the periphery of an adjacent tree line. The lift aircraft were authorized suppression and, firing through the smoke and at a greater range, nearly hit the smoke aircraft.

Observation: In all operations employing the smoke ship, aircraft commanders will orient the gunners/crew chiefs on the planned flight path of the smoke aircraft. Gunners and crew chiefs must be reminded to stay abreast of the location of the smoke ship and insure they aim away from it. In addition, the C & C aircraft itself is in a good position to observe the tracer direction of the fire from the lift ships. If it appears an obvious hazard, vectors can be given the smoke ship to preclude its getting hit.

Q. (U) S-4

1. Source: Lessons Learned - 269th Combat Aviation Battalion S-4

Item: Operation of Re-fuel/Re-arm points for airmobile operations. The three primary areas that have not been properly considered in the present system for establishing and operating Re-fuel and Re-arm points for airmobile operations are:

a. The primary users of the systems are not organic or attached to the divisions or separate Brigades conducting an operation, and the supporting aviation units for an operation can be changed from day to day (although present policy generally attempts to have the same aviation unit habitually support the same ground unit).

b. The responsibility for re-supply of fuel and ammunition lies with the supported unit (Division or Brigade).

c. The pumping equipment authorized the aviation units is not designed for continous operation and is not compatable with large capacity storage containers such as the 10,000 collapsible bladders. The use of small capacity pumps and 500 gallon bladders considerably increases the personnel requirements for operation of a re-fuel system. In addition, the increased use of CH-47 helicopters has greatly changed the capacity and delivery requirements for re-fueling systems.

Discussion: The present system of operation for airmobile operations in RVN has revealed several points worthy of discussion in the concept of operation of re-fueling and re-arming points for heliborne operations. Under the present system, the responsibility for operation of re-fuel/re-arm points has been placed upon the major units within their areas of responsibility. These units are to provide this support from their organic resources augmented by personnel and equipment from supporting aviation units as required. In most cases, each division has been authorized an 8 man KD detachment to assist in meeting their requirements. However, a KD team is organized and equipped primarily for bulk storage and issue and does not have on TO&E the equipment required to re-fuel aircraft or handle ammunition. During the past two years, the method of operation in RVN has changed from a concept where much of the re-fueling during operations was accomplished by fuel trucks which required aircraft to shut down or by use of 2 or 4 point mini-port systems. Both of these methods were time consuming, and the average re-fueling time was 30 minutes or more for one airmobile company. In order to reduce turn around time and increase efficiency of operations, the present concept demands refueling points capable of rapid re-fueling and re-arming of an airmobile company without shut down of the helicopters. To meet this requirement, a 12 point system with a flow rate of 20 gallon per minute per nozzle is required. Due to safety considerations and the fact that many operations are conducted in areas where vehicle traffic is not practical, the mini-port system has proven to be the best system for operation. Present POL equipment has not kept

pace with the changes in operating procedures. KD teams are equipped with bulk dispensing and storage equipment and aviation units are equipped with light weight pumping equipment designed for use with 500 gallon collapsible bladders. Neither the KD team or the aviation units are authorized equipment for ammunition handling. Neither system meets the present needs. What is needed is a re-fueling system which has a capacity sufficient to support a 12 point re-fueling system and the adapters and hoses necessary to set up the individual refueling points. These adapters are not presently a part of either system and are not readily available in the supply system. In addition, the system should include MHE for handling ammunition and heavy POL equipment. A system should contain as a minimum the following items with all fittings being KAM-LOCK Quick Disconnect:

a. Two (2) 350 GPM pumps
b. Two (2) 350 GPM Filter separators
c. Six (6) 10,000 gallon collapsible bladders
d. Four hundred feet (400') of 4" suction hose
e. Eighteen (18) 4" x 4" x 4" T gate valves
f. Eight hundred feet (800') of 4" discharge hose
g. Eight (8) 4" to 1 1/2" reducers
h. Eight hundred feet (800') of 1 1/2 discharge hose
i. Fourteen (14) 1 1/2 inch re-fueling nozzles with quick disconnect fitting
j. 6000 pound rough terrain forklift (for both re-fuel and re-arm point use)

k. Two (2) 4" double male adapters
l. Two (2) 4" double female adapters
m. Six (6) Y or T fittings 1 1/2" x 1 1/2" x 1 1/2"
n. Twelve (12) 1 1/2" double male adapters
o. Twelve (12) 1 1/2" double female adapters
p. Twelve (12) 5 pound fire extinguishers CO_2 or dry chemical
q. Two (2) airfield emergency light set containing 12 battery operated lights each. (One for re-fuel and one for re-arm)

r. Necessary vehicles, gas cans and associated equipment required to support operation of the re-fuel point and a four point re-arm point.

Observation: a. The separation of re-fuel and re-arm responsibility is no longer practical. The re-arm point must be located in the immediate vicinity of the re-fueling point, and re-arming for lift ships must be available in the re-fuel area. To facilitate the operation and insure proper coordination, refueling and re-arming should be a combined operation with personnel in the team cross trained to perform both operations. An eight (8) man team consisting of an NCO and seven (7) EM could perform this function. During large operations, these teams would be augmented from supporting aviation units.

b. The present system of operation places the responsibility for operation of facilities upon the division or major unit having an area of interest. However, at present these units do not have the personnel or equipment necessary to fulfill this requirement. Aviation units are presently authorized portable pumps and 500 gallon bladders. The intention of this system is for aviation units to provide equipment and personnel to assist in setting up and operating re-fuel and re-arm points within a division area. The 100 GPM pumps authorized are satisfactory for setting up a temporary re-fueling point and are required when vehicle traffic cannot reach the re-fueling site for bulk delivery of fuel. In these cases the use of 500 gallon bladders is the only practical method of operation. However, the personnel requirements for operation of re-fuel point using 500 gallon bladders and 100 GPM pumps and the capability of this type system to support multi-company operations or CH-47 operations make this system undersireable for extended operation. In addition, if an aviation battalion is given the requirement for providing personnel and equipment, the assets must be drawn from subordinate units, as the battalion headquarters company has no personnel or equipment for performing this type of mission. In addition, there is no assurance that the majority of the battalion assets may not be committed outside of the area served by such a re-fueling site. Since the major unit being supported has the responsibility for resupply and operation of re-fueling and re-arming points, the personnel and equipment required should be assigned or attached to that major unit. At present, the major unit has no authority to retain an aviation battalion's equipment and personnel, should the aviation battalion be committed to another operation. The aviation battalions should have a limited capability of establishing a re-fueling/re-arming facility in an area of operations, however, the basic requirement should righfully remain with the major unit responsible for the area of operations. To meet this requirement, each Division should be authorized one team (equipped with the personnel and equipment listed above) for each operational Brigade, and each separate Brigade should also be authorized a team. Aviation units should retain a limited capability of establishing temporary re-fuel/re-arm points. To meet this requirement, 6 100 GPM pumps and 6 500 gallon bladders are adequate. In addition, the aviation units should expect to provide personnel to assist in operation of re-arm/re-fuel sites during the period of time they are committed to a large scale operation or occupy a base camp. The rapidly increasing use of helicopters for troop lift and resupply demands that the support system for these operations be updated to meet the increased requirements. The value received from helicopter utilization demands that the non-productive time be reduced to a minimum.

2. Source: Lessons Learned - 269th Combat Aviation Battalion S-4

Item POL control

Discussion: Prior to the start of Operation YELLOWSTONE, it was found necessary to make a daily check on logistical progress for this operation

in order to insure that all logistical areas would be functional on D-day. Daily checks of all logistical areas were started on D-7. Major areas which required continuous checking were:

a. Engineer support in preparing POL sites with dust supressent.

b. Procurement of special supplies such as smoke oil and smoke grenades.

c. Procurement of special connections for a field POL system.

d. Insuring that adequate POL pumps were available. A pressure of 50 GPM per point is needed to insure a speedy turn around time of aircraft when refueling.

e. On site inspections of selected field refuel and rearm areas.

Observation: All of the above areas proved to be problem areas to one degree or another, due to lack of follow up on the part of responsible personnel or lack of understanding by logistic support personnel as to the degree of project completeness necessary in logistical areas to insure a smooth running airmobile operation. YELLOWSTONE also showed clearly that it is mandatory that field POL and re-arms points be installed and become completely operational by NLT D-2 (depending on location) to allow adequate reaction time to take care of last minute problems that might arise.

3. Source: Lessons Learned - 269th Combat Aviation Battalion S-4

Item: During the initial phase of Operation YELLOWSTONE two CH-54 Cranes experienced engine starting problems due to suspected fuel contamination at TAY NINH.

Discussion: Presently the JP-4 storage system at TAY NINH is operated by the 567th S&S Company, a unit belonging to the 1st Log Command. Present policy calls for the JP-4 storage tanks to be tested for contamination once every thirty (30) days. This policy is also SOP at other fixed base operations within III Corps. Samples taken are then sent to the 64th QM at LONG BINH for analysis. This procedure takes from 24 to 72 hours.

Observation: In order to assure that fuel is not contaminated when needed for a major operation, the S-4 will insure that a fuel sample is taken 24 days prior to the start of the operation. This will allow time for analysis of fuel to discover whether or not it is contaminated. This will in many cases necessitate an aircraft being made available to fly the sample to the 64th QM at LONG BINH for analysis.

4. Source: Lessons Learned - 269th Combat Aviation Battalion S-4

Item: The allocation of air transpot resources in moving the 21st Reconnaissance Airplane Company did not insure adequate sorties to meet the closing date at the forward location.

Discussion: Priority 1 was assigned to the air-mission charged with the task of transporting equipment of the 21st RAC to the new location. The lift was to comme ce on 8 Jan 68, with a closing date of 15 Jan. The first sorties were slipped to 9 Jan almost at once. On 9 Jan, these sorties were diverted to another mission. A request to increase the priority of the lift was sent forward to II Field Forces. Sorties on 10 to 11 Jan continued to run far behind allocation, usually because of diversions to other missions. On 12 Jan one sortie was pre-empted at TAY NINH by USO Troupe. A second request to increase priority in order to meet closing date requirements was sent forward. No acknowledgement was received, but sorties on 13 and 14 Jan ran ahead of allocation, completing the movement early on the morning of 15 Jan 68. The lack of dependable transportation or guaranteed availabiltiy created considerable problems at TAY NINH in feeding and housing personnel who were not moved out on schedule. At the other end of the move, the advance party was put in an extremely difficult situation, having to wait far past the anticipated and planned time for essential equipment.

Observation: A minimum priority of Combat Essential (CE) be assigned to all displacements in order to insure more reliable transportation for planning and logistical purposes.

SECTION II
PART II

Commander's Closing Comment

ITEM: Operational Report - Lessons Learned

DISCUSSION: The trials confronting an aviation battalion in its development in a combat environment are many and in nature, quite varied. Each day problems develop within units, the resolutions to which often seem insignificant or perhaps trite. Little more is thought of methodology found to be successful than an occassional agreement in wondering what required so long a time to find so simple a solution. In truth, the problems facing one unit are generally the problems harrassing, delaying, and hampering in some way the operational functions of another. Certainly, the solutions found to problems can not be spontaneously relayed to units throughout the combat zone. Efforts which can be taken, however, are in the form of the documentation of such lessons learned for dissemination throughout the CTZ among units with similar missions.

OBSERVATION: The importance of exchanging successful operational concepts can not be over-stressed. The success of our mission in the combat theater is dependent on the success of the total effort of our composite units. The more which is done to assist other units in the execution of their missions, that much more is done to achieve our military aims in Viet Nam. With aviation so vital a link in the successful attainment of our ultimate goals, the mutual exchange of successful tactical experiences by combat aviation battalions is not only of crucial importance, but also of dire necessity to bring the conflict to which we are so deeply committed to as rapid a military solution as possible.

JAMES H. MERRYMAN
LTC, ARTY
Commanding

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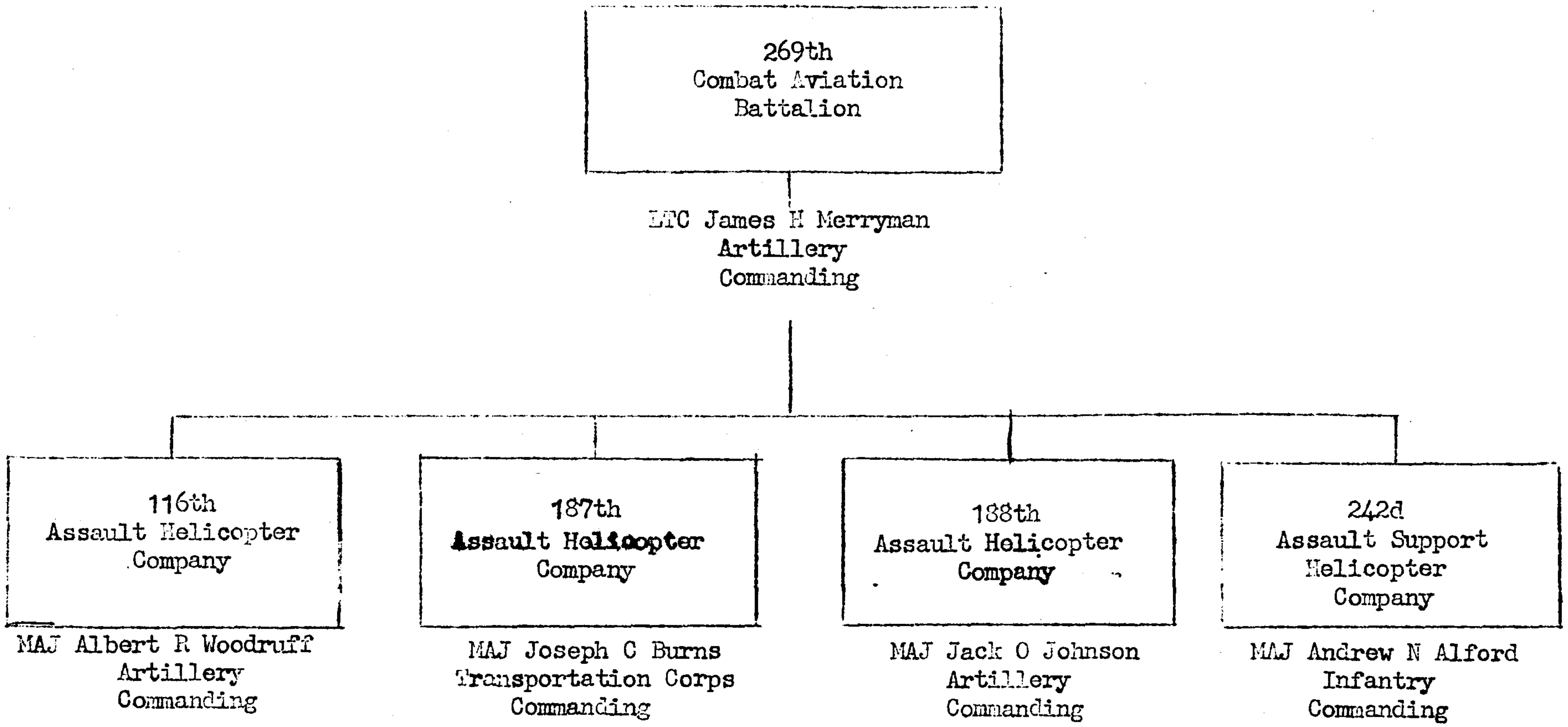
INCLOAURES:
1-The 269th Combat Aviation Battalion
2-Strength Status
3-Gains and Losses for Next 90 Days
4-Glossary of Terms

Inclosure 1



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Inclosure 2

HEADQUARTERS
269TH COMBAT AVIATION BATTALION

STRENGTH STATUS

UNIT	LOCATION	AUTHORIZED STRENGTH				ASSIGNED/ATTACHED STRENGTH			
		OFF	WO	EP	AGG	OFF	WO	EP	AGG
HHC, 269TH	CU CHI	21	2	86	109	23/1	1/1	137/3	161/5
116TH ASLT HEL CO	CU CHI	15	52	152	219	12/1	39/1	159/1	210/3
283D SIG DET	CU CHI	1	0	9	10	1	0	9	10
392D TC DET	CU CHI	1	1	70	72	1	2	58	61
431ST MED DET	CU CHI	1	0	8	9	1	0	7	8
187TH ASLT HEL CO	TAY NINH	15	52	152	219	15	34	146/3	195/3
1ST SIG DET	TAY NINH	1	0	8	9	1	0	6	7
602D TC DET	TAY NINH	1	1	70	72	1	1	65	67
541ST MED DET	TAY NINH	1	0	8	9	1	0	6	7
188TH ASLT HEL CO	DAU TIENG	14	53	152	219	11/2	42/2	162/3	215/7
4TH SIG DET	DAU TIENG	0	1	8	9	1	0	9	10
154TH MED DET	DAU TIENG	1	0	8	9	1	0	5	6
603D TC DET	DAU TIENG	1	1	70	72	1	1	56	58
242D ASLT SPT HEL CO	CU CHI	13	25	143	181	11	14/1	140	165/1
621ST TC DET	CU CHI	1	1	80	82	1	1	77	79
GRAND TOTAL		117	192	1119	1429	82/4	135/5	1042/10	1259/19

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INCLOSURE 3

SUMMARY OF GAINS AND LOSSES FOR THE NEXT 90-DAY PERIOD

	30-DAY	60-DAY	90-DAY
		LOSSES	
OFFICERS	4	14	12
WARRANT OFFICERS	13	12	6
ENLISTED	75	173	116
		GAINS	
OFFICERS	2	8	8
WARRANT OFFICERS	6	21	4
ENLISTED	38	124	73

Inclosure 4

Glossary of Terms

1. Airmobile Combat Assault (CA): The lifting of combat troops by helicopter into an unsecure landing zone. Enemy resistance is probable.

2. Airmobile Extraction: The lifting of combat troops by helicopter from terrain in which the enemy has the capability to resist. Resistance can be expected to increase as each lift is made and the friendly force's perimeter becomes smaller.

3. Airmobile Task Force (AMTF): The air lift and ground maneuver elements required to conduct an airmobile operation.

4. Airmobile Task Force Commander: The commander who exercises control of all elements of an Airmobile Task Force; usually the ground force commander.

5. Airmobility: Tactical mobility afforded a ground maneuver force by helicopters; the capability of a ground force to tactically deploy through the air, implies tactical integrity in landing.

6. Army Aviation Element (AAE): A liasion element from the supporting unit for coordination and planning of aviation operations. This element is found at I Field Force Vietnam, II Field Force Vietnam, and at XXVII Corps.

7. Armed Helicopter (Gunship): A helicopter equipped with an attached weapons system which is fired by the pilot or co-pilot.

8. Company Lift: A unit of lift helicopters, capable of lifting the assault elements of a rifle company in one lift.

9. Eagle Flight: Heliborne infantry troops on air alert to perform immediate reaction missions for a ground commander.

10. Flight: Two or more aircraft with a common mission under the command of a designated flight leader.

11. Heavy Gun Team: Three armed helicopters operating as a tactical element.

12. Landing Zone (LZ): A specified area for landing helicopters to debark troops and/or cargo in, or in support of, an airmobile assault.

13. Lift Helicopter (Slick): A helicopter used for the purpose of lifting troops and/or cargo.

14. Light Gun Team: Two armed helicopters operating as a tactical element.

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15. Air Mission Commander: An officer designated to command aviation elements on a specific mission or operation.

16. Platoon of Aircraft (Plat): Two sections or more of aircraft under command of a platoon commander.

17. Release point (RP): A geographic point, recognizable from the air, at which a flight arrives in proper formation and then proceeds to designated area under less centralized control.

18. Smoke Ship: A UH-1 helicopter especially equipped with a smoke generator capable of laying a thick cylinder of smoke along the aircraft's flight path.

19. Surveillance: A continuous and close watch over a specific route, area, or point for information of the enemy.