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AGO D/A ltr, 29 Apr 1980

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

AGDA (M) (19 Nov 69) FOR OT UT 693244

5 December 1969

AD 863014

SUBJECT: Operational Report - Lessons Learned, Headquarters, 520th Transportation Battalion, Period Ending 31 July 1969

SEE DISTRIBUTION

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

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
as

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14

DEPARTMENT OF THE ARMY
HEADQUARTERS, 520TH TRANSPORTATION BATTALION (AMLS) (GS)
APO 96289

AVGFP-0

13 August 1969

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969 RCS CSFCR-65 (R1)

Commanding General
USARV
ATTN: AVHGC-DST
APO 96375

1. The following report of military operations during the preceding quarter is submitted in accordance with provisions of USARV Regulation 525-15.

2. Section 1: Significant Activities.

a. During the period 30 Jun 69 through 4 Jul 69, the battalion underwent the Annual USARV General Inspection. The overall rating was satisfactory, with 219 out of a total of 253 separate subjects rated excellent or higher (17 outstanding and 196 excellent ratings).

b. During the preceding quarter, the battalion personnel section in-processed 11 officers and 299 enlisted personnel. During the same period, 15 officers and 202 enlisted personnel were out-processed.

c. In addition to the assigned operational mission, the battalion units have participated in 320 hours of mandatory refresher training. Specialized training for selected personnel was accomplished within the Battalion Training Program and by the use of allocated Army Aviation Refresher Training School (AARTS) quotas. This included a block of 12 hours for all newly assigned personnel, under the provisions of USARV Reg 350-1 and special battalion requirements tailored to the local area and mission, plus 41 quotas for AARTS at Vung Tau. A total of 9 AVEL personnel attended the Standard Lightweight Avionics Equipment Course (SLAE) in preparation for the input of this new family of CH-6 radios.

d. The battalion presently supports a total of 1,031 aircraft. This represents an increase of 17 aircraft over the last quarter including the unusual mission support of three air cushion vehicles located at Dong Tam. A total of 959 aircraft were repaired and returned to user, 875 of these representing the DS workload while the remaining 84 were on GS workorders.

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AVGFP-O

13 August 1969

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969

e. A total of 4,182 non-programed components were received of which 3,104 were repaired and returned to the supply system or the user. The TARP (Theater Aircraft Repair Program) had an input of 1,415 items of which 852 were returned to supply or user. Lack of adequate repair parts and, in some cases, low input of components remained a problem and prevented attainment of TARP goals in this battalion.

f. The battalion Aircraft Processing Detachment received 355 aircraft for assembly and issue and 228 for out-processing and evacuation. The total of 583 aircraft is an increase of 50 aircraft over the last quarter. The processing of 28 CH-47 aircraft, compared to only 18 last quarter, represents another increase in total manhours expended.

g. The three AVEL platoons of the battalion have, during the past three months, repaired 12,666 avionics components. Also closed out were 907 work orders where the entire aircraft was workordered into the unit shops.

h. During the last quarter, the new "100 Series" programs for the MCR 500 were initiated. A total of 53,655 repair parts requests were received of which 44,533 were ASL requests. ASL issues totaled 30,579.

i. The battalion consolidated aircraft recovery team, under the supervision of the battalion operations section; completed 74 successful field extractions. One enlisted man was slightly wounded and one aircraft sustained minor damage during one mission. In addition, there were 151 maintenance extractions made during this quarter.

j. The battalion daily courier transported 2,467 passengers and 17,883 pounds of priority cargo during the period.

k. Special projects completed during this quarter:

(1) UH-1H Conversion Project modified a total of 38 UH-1H aircraft which were issued to the theater with T-53-11 engines rather than the standard T-53-13 engines.

(2) Support, in the form of working area, labor augmentation, billets and mess facilities, was furnished to the Boeing-Vertol Blade Modification Team which inspected, modified and reworked 613 CH-47A main rotor blades.

l. On 6 Jun 69, the 357th Trans Co area located at Bion Hoa was hit by two 122 millimeter rocket rounds. The results were two fatalities and twelve wounded.

m. During this reporting period, the battalion consisted of Headquarters and Headquarters Company, 20th Transportation Company (ADS), 357th Transporta-

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AVGFP-O

13 August 1969

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969

tion Company (ADS), 539th Transportation Company (GS), 605th Transportation Company (ADS), Aircraft Processing Detachment and AVEL Company Central (Provisional). The organizational structure of reporting organizations is contained in Inclosures 1 through 4.

3. Section 2, Lessons Learned: Commander's Observations, Evaluations and Recommendations.

a. Personnel:

(1) Continuing Personnel Shortages.

(a) Observation: This battalion again operated at less than maximum capability due to the continuing shortage of officers and key enlisted personnel. Priority is given to staffing combat units, and many operational units in this area are filled at higher than 100% of authorized strength. While this practice may be fully justified in certain skills, it is most detrimental where aircraft maintenance and supply is concerned.

(b) Evaluation: A general support aircraft supply and maintenance battalion has the equipment and, generally, the facilities to support more than 1,000 aircraft on an area basis. In Vietnam, such an organization also has manufacturers' field service representatives and skilled civilian contract augmentation. If there is a shortage of maintenance officers, maintenance test pilots, technical inspectors, senior mechanics and NCP 500 supervisors and repairmen, it is better to take the shortage at the operating level where fewer aircraft are really affected, than at the GS battalion where hundreds are affected. Lower level overflow can be pushed up to the GS battalion with minor loss in availability but the battalion can only evacuate to COMUS, which represents months of lost availability.

(c) Recommendation: That the GS aircraft supply and maintenance battalion be given priority, or at the very least equality, in the assignment of vital aviation logistical personnel. If there was only one doctor in town, you would certainly locate him centrally so he could treat the most patients.

b. Operations:

(1) Perimeter defense.

(a) Observation: The 520th Transportation Battalion is tasked with command and control for Reno Sector of the Phu Loi Base Camp. On a daily basis, this requires a diversion of approximately fifty (50) personnel from the primary mission.

(b) Evaluation: In the past, personnel for this duty were drawn

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AVGFP-0

13 August 1969

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969

from the companies located at Phu Loi on a roster type basis. This resulted in the loss of one-half day before in preparation for duty and the following day for sleep. Additionally, periodic perimeter construction and maintenance details were drawn from the units. Under the present system, newly arrived personnel are assigned to a headquarters security platoon. Sufficient personnel are involved to accommodate two shifts and because actual guard duties require only six hours per night, a portion of each day is devoted to perimeter construction and maintenance tasks. Average length of assignment with the platoon is 27 days, and once completed, the individuals can concentrate on mission work for the remainder of their tour. Benefits derived include reduced impact on unit primary mission, more professional guard performance and a reduction in special maintenance and construction details.

(c) Recommendation: Continued use of special security platoon.

(2) Penaprime Coated Bunkers.

(a) Observation: It has been noted that command and defensive bunkers have been coated with penaprime to improve durability of the sandbags protecting them.

(b) Evaluation: Penaprime is highly combustible and could easily be ignited by mortars, rockets, tracer rounds, cigarettes or any type of open flame. In one case, in another organization, a burning piece of paper ignited a penaprime covered ammo bunker and it was totally destroyed.

(c) Recommendation: Penaprime not be utilized in bunker or any other construction.

(3) Damage to UH-1 Tailbooms.

(a) Observation: Damage to UH-1 tailbooms during shipment to CCNUS on Air Force aircraft.

(b) Evaluation: Due to shortage of "piggy back" shipping kits, tailbooms were being shipped secured to padding on the floor of USAF aircraft despite every precaution, damage has occurred to these tailbooms during shipment.

(c) Recommendation: When shipping gear is not available, tail booms should remain installed on the aircraft and the aircraft shipped intact.

(4) Condensation in Avionics Test Equipment.

(a) Observation: During recent preparation for the AGI, the avionics shop ceased operation after 1800 hours and all AC power was turned off during this period.

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AVGFP-0

13 August 1969

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969

(b) Evaluation: It was noted that a considerable amount of condensation formed in the test equipment. This condition created a potential cause for failure of the equipment.

(c) Recommendation: Power should be applied to electronic test equipment continually, thus maintaining a constant temperature and precluding condensation.

(5) Exhaust Stack Cracks (OH-6)

(a) Observation: Cracks have been a problem on the OH-6 exhaust stacks necessitating either welding of the crack or, in certain cases, condemnation as non-repairables. Recently, a known $\frac{1}{4}$ inch crack existed prior to run up for maintenance operational check. After shut down, the clam shell doors were immediately opened and it was inspected again. This particular crack extended from the original $\frac{1}{4}$ inch to over three inches in length while the inspector was watching.

(b) Evaluation: Persons opening the clam shell doors immediately after engine operation are exposing the exhaust stacks to ambient air, releasing the envelope of hot air suddenly and causing rapid and uneven cooling which results in structural cracks.

(c) Recommendation: Allow the engine to cool approximately 8 - 10 minutes before opening clam shell doors after shut down. This permits exhaust stacks to cool evenly and gradually, thus preventing cracks.

c. Training: None

d. Intelligence: None

e. Logistics:

(1) Battalion TARP Goal.

(a) Observation: Theater Army Repairables Program (TARP) is below its assigned goal for most components. Tail rotor hubs for the UH-1 and AH-1 remained in short supply, even though the TARP goal was exceeded.

(b) Evaluation: There is a critical shortage of UH-1 and AH-1 tail rotor hubs and parts kits. This shortage is due to the number being condemned because of cracks in the yoke or bad bearings. In accordance with TARP, the battalion is tasked for 250 tail rotor hubs per month. This goal is being exceeded by approximately 200 to 300 hubs per month. The battalion possessed an even greater potential for producing hubs if the repair parts had been available. Other critical TARP items were short snafits, hanger bearings, servo cylinders and main rotor hubs. In some cases, the assigned

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AVGFP-O

13 August 1969

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969

TARP goals were not met because of insufficient input of components for repair. In other cases, there was a shortage of required repair parts which necessitated the shipment of the components to depot even though tools, skills and manhours were available to accomplish the repair within the theater.

(c) Recommendation: Re-evaluation of the entire program to include input, availability of repair parts and the economics of both time and money involved.

(2) Management of the DA Form 2410-1 Procedure.

(a) Observation: It has been noted that Aircraft Intensified Management System (ACIMS) reports are not being turned-in IAW Change 1 TM 38-750 and the revised edition of AR 711-45.

(b) Evaluation: All reportable items are contained in TB 55-1500-307-25. TM 38-750 contains instructions on preparation of the DA Form 2410-1, which is used when ACIMS items are received, shipped, installed, removed, serviceability conditions changed or lost to the system. The DA Form 2410-1 should be initiated by maintenance and technical supply personnel. During visits with various supported units, personnel concerned have been asked about the ACIMS program. Responses have been from complete ignorance to, "I guess we are doing it". It is evident that the desired results are not being achieved. Lack of sufficient training, understanding and supervision by technical supply and maintenance personnel is responsible.

(c) Recommendation: That either a concerted program of training and enforcement be implemented or the reporting procedures be cancelled.

(3) Shortage of Special Aircraft Tools and Repair Parts.

(a) Observation: Aircraft input into Vietnam without sufficient repair parts or special tools.

(b) Evaluation: The CH-23 was phased out of service in Vietnam during 1968 and all repair parts and special tools were returned to the supply system. In 1969, this aircraft was returned to Vietnam. The aircraft has been in service for approximately three months and the required special tools and repair parts are still not available. This has caused excessive maintenance downtime in this battalion.

(c) Recommendation: That three separate packages of special tools (Organizational, DS and GS) and a sixty-day supply of repair parts be assembled for force issue to units attempting to support this aircraft.

(4) Expediting of Priority Due-Out Issues.

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AVGFP-O

13 August 1969

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969

(a) Observation: In-country depots presently co-mingle the various priority issues in a single, consolidated box.

(b) Evaluation: It is recognized that maximum fill is desired in each box, but no great amount of space would be lost if each large shipping box also contained a cardboard inner box. Priority O2 and O5 issues could be segregated and placed within this container. This procedure would be especially valuable as a means of expediting issues when several shipping boxes are received at the DSU at one time.

(c) Recommendation: Smaller containers be utilized within large shipping containers to segregate high priority issues at depot level.

f. Organization: Re-organization of DS Companies.

(a) Observation: TO&E 55-457EPCO should be modified to make the direct support company more efficient.

(b) Evaluation: Direct support companies organized to operate under TO&E 550457EPCO, include three separate direct support platoons. Each platoon is organized to operate as a separate unit to supply on-site maintenance to an operational aviation unit. Due to combat conditions and the number of units supported, it is not possible for these units to function in the manner envisioned. They have, in fact, become fixed station aircraft direct support companies. A typical DS platoon is composed of both aircraft repairmen and allied shop technicians. To operate as a fixed station organization, it is necessary to extract the allied shop MCSs from the DS platoons and reorganize into two separate platoons: One an allied shop platoon and the other a maintenance platoon. This means that the manning table, as outlined in the TO&E, does not agree with the actual operating structure of the organization and manpower management is most difficult. In addition, when operating from a fixed station, costly excesses of certain specialized tools and shop sets exist.

(c) Recommendation: That a study be conducted with emphasis on adjustments in personnel, MCS utilization and requirements. An MTO&E should be organized and tailored specifically to meet the needs of the present fixed station operation.

g. Other: None

William A. Rathbone

WILLIAM A. RATHBONE
LTC, TC
Commanding

~~4 Incl~~
~~Subordinate Unit~~
~~Organizational Charts~~
Incls 1 - 4 wd HQ, DA

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AVGP-B (13 Aug 69) 1st Ind

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969 RCS CSFOR-65 (R1)

DA, HQ, 34TH GENERAL SUPPORT GROUP (AM&S), APO 96309

15 SEP 1969

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

Comments on Section 2, Lessons Learned: Commander's Observations, Evaluations and Recommendations are provided below:

1. Reference Para 3, a (1). Concur.
2. Reference Para 3, b (1). Concur.
3. Reference Para 3, b (2). Nonconcur. According to qualified fire prevention and fire fighting personnel (Fire Chief MACV ANNEX), penaprime is not readily combustible and if set afire is slow burning and can be easily extinguished. Sand and water are both good extinguishing agents. Flash point for penaprime is 400°F, wood 400°F and sandbags 430°F. This Fire Chief approves the use of penaprime to preserve sandbag bunkers if no other material is available.
4. Reference Para 3, b (3). Concur.
5. Reference Para 3, b (4). Concur.
6. Reference Para 3, b (5). Concur with recommendation as an interim solution, however recommend an evaluation be conducted to determine if a more suitable metal or manufacturing process would eliminate this problem.
7. Reference Para 3, e (1). Concur in principle. TARP allocation is based on total capability for each Battalion as reported by that organization. The stockage objective of each repair facility is a 30 day level of repair parts required to repair all items programmed for that activity. The unit assigned responsibility for repairing a given item is responsible for prestocking applicable parts and materials.
8. Reference Para 3, e (2). Concur.
9. Reference Para 3, e (3). Concur.
10. Reference Para 3, e (4). Concur.

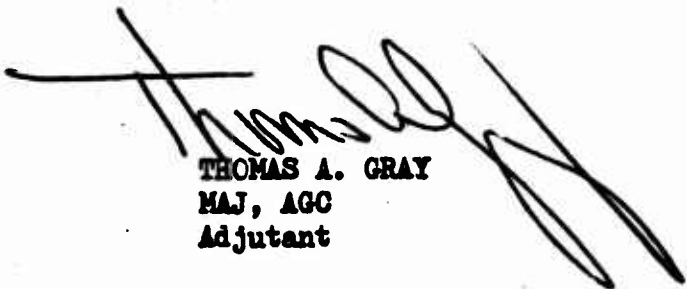
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AVGF-B (13 Aug 69) 1st Ind

SUBJECT: Operational Report of 520th Transportation Battalion for Period
Ending 31 July 1969 RCS CSFOR-65 (R1)

11. Reference Para 3, f. Nonconcur. The problem stated is one that is peculiar to the local situation in the Republic of Vietnam. The TO&E must be one which is deemed best suited to all types of situations. An MTO&E should be initiated by organizations to solve problems peculiar to a particular environment.

FOR THE COMMANDER:



THOMAS A. GRAY
MAJ, AGC
Adjutant

9

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AVHGC-DST (13 Aug 69) 2d Ind
SUBJECT: Operational Report of 520th Transportation Battalion
for Period Ending 31 July 1969, RCS CSFOR-65 (R1)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 1 6 OCT 1969

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT,
APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1969 from Headquarters, 520th Transportation Battalion (AM&S) (GS).

2. Comments follow:

a. Reference item concerning "Continuing Personnel Shortages," section II, page 3, paragraph 3a(1); nonconcur.

(1) Enlisted personnel arriving in USARV are allocated to subordinate units with the highest assignment priority going to the combat commands, next to the combat support commands and lowest priority to the combat service support commands. A pro-rata or fair share of replacements by MOS is furnished to all commands. Therefore, critical shortages existing in one command are experienced by units throughout USARV. Shortages in the supervisory enlisted grades have existed for a considerable period of time because Army-wide resources are insufficient to offset continuing requirements in short tour areas. This situation has been somewhat lessened through integration of numerous MOS in the skill development base, however, total relief is not foreseen in the immediate future.

(2) An examination of the officer strength of the 34th General Support Group (AM&S) as of 1 September 1969, revealed that a net shortage of only two aircraft maintenance officers existed at that time (138 assigned, versus 140 authorized). The overall officer strength posture on the same date was 170 assigned against an authorization of 175. USARV has had a Present Requisitioning Authority (PRA) for aviation personnel between 90 and 92 percent of authorized since 1966. An adequate number of commissioned and warrant officer personnel are assigned to the 34th General Support Group (AM&S). Assignment of officers to the several subordinate units including the 520th Transportation Battalion (AM&S) (GS) is an internal matter.

b. Reference item concerning "Penaprime Coated Bunkers," section II, page 4, paragraph 3b(2) and 1st Indorsement, paragraph 3; concur. The recommendation as presented in the report is valid. Nonconcur with the 1st Indorsement. Recent controlled tests have indicated that sandbags treated with peneprime deteriorate at the same rate as sandbags not treated. The use of peneprime therefore, serves no purpose.

AVHGC-DST

16 OCT 1969

SUBJECT: Operational Report of 520th Transportation Battalion for
Period Ending 31 July 1969, RCS CSFOR-65 (R1)

c. Reference item concerning "Exhaust Stack Cracks (OH-6)," section II, page 5, paragraph 3b(5); concur. The unit is advised that an EIR is required to ensure that proper corrective action is initiated by USAAVSCOM.

d. Reference item concerning "Battalion TARP Goal," section II, page 5, paragraph 3e(1); concur. Quarterly meetings, attended by representatives of Aviation Material Management Center (AMMC) Vietnam, the 34th General Support Group and USARV are held to study the TARP list and to recommend additions or deletions to the list. The next meeting is scheduled for 23-24 October 1969.

e. Reference item concerning "Shortage of Special Aircraft Tools and Repair Parts," section II, page 6, paragraph 3e(3); nonconcur. AMMC indicates that at present only four percent of the OH-23 ASL has a zero balance; the recent supply cycle has 79.1 percent demand satisfaction; and special tools are available and should be requisitioned under exception data, code ACE, procedures.

f. Reference item concerning "Expediting of priority Due-Out Issues," section II, page 6, paragraph 3e(4); concur. The recommendation has been forwarded to AMMC by separate correspondence.

FOR THE COMMANDER:



B. A. GOODWIN

MAJ, AGC

Assistant Adjutant General

Cy furn:
520th Trans Bn
34th GS Gp

GPOP-DT (13 Aug 69) 3d Ind

SUBJECT: Operational Report of HQ, 520th Transportation
Battalion for Period Ending 31 July 1969, RCS
CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 28 OCT 69

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

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:



C. L. SHORTT
CPT, AGC
Asst AG

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