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### AUTHORITY

AGO D/A ltr, 29 Apr 1980
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DISTRIBUTION STATEMENT A

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.
SUBJECT: Operational Report - Lessons Learned, 41ST Signal Battalion (CA)

TO: SEE DISTRIBUTION

1. Forwarded as inclosure is Operational Report - Lessons Learned, 41ST Signal Battalion (CA) for quarterly period ending 31 January 1967. Information contained in this report should be reviewed and evaluated by CDC in accordance with paragraph 6f of AR 1-19 and by CONARC in accordance with paragraph 6c and d of AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

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

BY ORDER OF THE SECRETARY OF THE ARMY:

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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(Continued on page 2)

THRU: Commanding Officer
21st Signal Group
APO 96240

THRU: Commanding General
1st Signal Brigade (USSTRATCOM)
APO 96307

THRU: Commanding General
United States Army, Vietnam
ATTN: AVCC
APO 96307

THRU: Commander in Chief
United States Army, Pacific
ATTN: GPO-HH
APO 96558

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


b. 1st Signal Brigade Regulation 970-2, dated 5 October 1966, Subject: Historical Activities.

PART 1

SECTION I

Significant Organization or Unit Activities

1. General: During this reporting period the modified table of Organization and Equipment (TOE) for Headquarters and Headquarters Company was submitted to 1st Signal Brigade for approval. The KTOE was in accordance with instructions received from Department of the Army to establish the space ceiling of the H2C, at 120 spaces. Strength breakout was as follows:

<table>
<thead>
<tr>
<th>Officers</th>
<th>WO</th>
<th>EM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>6</td>
<td>108</td>
<td>122</td>
</tr>
</tbody>
</table>

Included within the above cited spaces is an aviation section organized in light of the complete Brigade organizational structure where in the Battalion will have a much smaller area of responsibility. There was no change to normal and established mission assignments, organization, or personnel requisitioning procedures to be effected at this time.

a. The battalion assets as of 31 January 1967 consisted of Headquarters and Headquarters Company; B Company, 11st Signal Battalion; D Company, 459th Signal Battalion; B Company, 43rd Signal Battalion; and 49th Signal Detachment; with operational control of the 578th Signal Company (CC) and the 1st Platoon, 273th Signal Company. B Company, 43rd Signal Battalion, recently organized, has two (2) officers and six (6) enlisted men assigned as of 31 January 1967.

b. The assignment of D Company, 459th Signal Battalion TOE 11-57E) at full strength without increase in battalion mission, permitted the alignment of communications means with areas of responsibility. B Company, 11st Signal Battalion, was assigned the Qui Nhon area to include Vung Chua Mountain Signal Site and D Company, 459th Signal Battalion was assigned operational control of six (6) Signal Sites located in Phu Thanh Valley and Contiguous area. This change established unit integrity within the valley signal sites and increased available resources in the Qui Nhon area.

c. Vung Chua Mountain Signal Site was established as a separate detachment directly responsive to the Battalion Commander. Uniform Code of Military Justice, pay, and promotional authority remained with parent unit. Personnel and logistical support are provided by elements of this command. This arrangement allows a more responsive chain of command for the vital communications complex and DCS reporting station. Results thus far have been favorable.

d. With the re-alignment of the areas of responsibility, B Company, 11st Signal Battalion was issued a revised mission statement which reads:
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(1) To provide communications center, switchboard, radio, and multi-channel communications facilities for US logistical units located in the greater Qui Nhon area.

(2) To provide Military Affiliate Radio System (MARS) facilities to all US military personnel within the Qui Nhon-Phu Thanh areas.

(3) To provide other communications support as may be directed by the Commanding Officer, 1st Signal Battalion.

e. The following tasks were developed and approved from the stated mission:

(1) Provide long distance and local switchboard service to include installation of field wire and field cable locals for the greater Qui Nhon area.

(2) Provide communications center service, to include a teletype terminal and relay capability and cryptographic service.

(3) Operate the Qui Nhon area Interim Autodin Terminal.

(4) Operate the Qui Nhon Air Courier Interchange Station.

(5) Provide multi-channel VHF radio relay terminals at Vung Chua Mountain Signal Site and Qui Nhon Local VHF Site.

(6) Provide a teletype control facility at STRATCOM Long Lines Detachment North, Qui Nhon.

(7) Operate the Military Affiliate Radio System (MARS) station for the Qui Nhon and Phu Thanh areas.

(8) Operate HF radio stations as required.

(9) Provide technical control at Vung Chua Mountain Signal Site.

(10) Provide field rations mess facilities at Vung Chua Mountain Signal Site.

(11) Provide logistical support for Vung Chua Mountain Signal Site as directed.

e. These tasks cannot be satisfactorily performed under present organization. A MTOE will be submitted to align organization with mission.

2. Attachments and Detachments: No units were attached or detached during this reporting period. However, the tropospheric scatter team from the 266th and 505th Signal Companies returned to their parent units after completing 180 days TDY in Vietnam.

3. Re-Organization: The added missions of operating the Dial Central Office, AN/MSQ-73 Technical Control Facility, and the Interim Autodin Terminal Van caused B Company, 11st Signal Battalion to re-organize in accordance with the mission. Personnel and equipment were programmed for these requirements and have been received by the unit. A MTCE action to provide authorization for the personnel and equipment will be submitted for approval.

4. Personnel:

a. Shortages have not been critical during this quarter as during previous quarters. This was alleviated through the replacement system and an effective cross-training program at unit and site level. However, shortages still occur in some fields. The significant MOS shortages are:

<table>
<thead>
<tr>
<th>MOS Description</th>
<th>Shortage</th>
</tr>
</thead>
<tbody>
<tr>
<td>31K General Crypto Repairman</td>
<td>51%</td>
</tr>
<tr>
<td>31Z Area Communications Chief</td>
<td>36%</td>
</tr>
<tr>
<td>63B Vehicle Mechanic</td>
<td>36%</td>
</tr>
<tr>
<td>76K General Supply Specialist</td>
<td>58%</td>
</tr>
<tr>
<td>94B Cook</td>
<td>29%</td>
</tr>
</tbody>
</table>

b. During most of the reporting period, the Battalion Personnel section maintained the records of two other battalions while conducting on-the-job training for the personnel sections. On 6 January 1967 and on 20 January 1967, respectively, the personnel and records of the 13rd Signal Battalion and the 37th Signal Battalion were released to the control of their respective commanders. Special Court Martial Jurisdiction which had been exercised by this battalion was delegated by Commanding Officer, 21st Signal Group to the respective battalion commanders.

5. Intelligence:

a. Security matters were routine during the quarter, no security violations occurred which resulted in compromise or possible compromise of classified material. There were three (3) administrative violations. Two of these resulted from stamping classified messages with an unclassified stamp. The third violation involved improper procedures in transmission of a classified document. A double check system was immediately implemented to insure that all messages are properly handled.
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b. Physical security of the operational signal sites received command emphasis from all levels. Plans were reviewed and major efforts were made toward full implementation. Availability of construction materials was the major hindrance because of the low issue priority assigned to support units. Field expedients were used where possible.

6. Operations:

a. The geographical area served by the Battalion remained unchanged from the previous quarter. Although five new VHF systems were installed, maximum effort was expended upgrading quality and reliability of existing facilities. This was accomplished by replacing or rehabilitating old equipment, revising operating procedures, frequent site inspections and physical reconfiguration of on-site equipment.

b. An Interim Autodin Terminal has been installed at the Data Processing unit of the US Army Depot, Qui Nhon. This data van, with its IBM 1013 transceiver and ancillary equipment will process 100 cards per minute. The existing IBM 066/068, a ten card per minute machine, was moved from the Qui Nhon Army CommCenter to the Depot Stock Records Section. A dedicated 3 KC data circuit will be activated. This location provides closer coordination with the user and has increased traffic count from a low of 100 cards per week to an average of 3000 per day transmitted and an average 2500 cards per day received.

c. A Central Office Teletypewriter Set AN/MDC-23 was positioned at the Qui Nhon Army CommCenter. When fully operational this equipment will replace two AN/MSC-29's presently in use. All eight circuits will be upgraded from 60 to 100 words per minute thereby increasing the traffic capacity and overall efficiency of the Communication Center operations.

d. Numerous surveys, recommendations, and plans culminated in the final appointment of Vung Chua Mountain Signal Site as the seventh DCS reporting station in Vietnam. No increase or change in personnel accompanied this change. A technical control van AN/MSQ-73 in conjunction with an SB-675 and an AN/MSQ-31 positioned together comprise the control facility. Plans have been developed for a permanent arrangement incorporating a second AN/MSQ-73 and a fixed control building. Increased communications control and circuit restoration capability has been realised by this new facility.

e. Training:

(1) Cross-training continues to be a command interest subject because of the large turn-over of personnel in critical MOS's. During the reporting period, 127 personnel received scheduled training in critical specialties.
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Most of the cross training program is conducted at individual sites on a continuing basis. This method provides the most feasible means of training personnel.

(2) Five-Hundred-forty-three personnel received familiarization firing with individual weapons and M-79 grenade launcher, M-60 and 50 Cal machine guns. Local ARVN training facilities were used in accordance with local procedures.

(3) Formal classroom training continues to be extremely difficult to conduct because of operational commitments and the non-availability of adequate training facilities. Implementation of training directives has enhanced the efficiency of the mission performance.

7. Logistics:

a. Generators remain an item of major concern to this Headquarters. Completion of planned permanent power facilities are behind original schedule. This slippage has caused critical use of back-up power equipment and extended use of small capacity TOE and special authorization generators. Interim use of several 100 KW and 150 KW units has relieved some pressure; however, operation and maintenance of these larger units is beyond the capability of organic personnel and facilities.

b. The repair parts resupply is steadily improving. The use of Red Ball Express requisition procedures has become less necessary except in isolated instances. Normal 02 & 05 requisitions are being filled in a satisfactory time frame. Items which have been on requisition for over a year are being received.

c. Maintenance float items have not reached the authorized 20% level. This situation was improved by the reduction of sites to support and the removal of excess equipment from the sites.

d. The release of items from Qui Nhon Depot has improved. Receiving release of controlled items continues to be a problem. During the last month of this quarter, a liaison officer was provided to the depot to assist all battalion units in obtaining expedited actions and has proven beneficial.

e. The electronic maintenance repair facility moved into a two-story semi-permanent wooden structure during the quarter. The relocation of the second, third, and limited fourth echelon shops has greatly improved working conditions and fostered a smoother operation.
SCCNQ-CA-OP  
31 January 1967

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8. Aviation:

a. The aviation section was assigned the mission of providing aviation support to four of the five battalions of 21st Signal Group serving the I and II Corps Tactical Zones. The loss of two aircraft and adverse weather conditions necessitated numerous flight requests be delayed or cancelled. Requests have been made for replacement aircraft.

b. Low priority assigned the battalion by support maintenance continues to be a problem. The result is extended down time of aircraft. Requisitions of parts and repair of aircraft are also affected by the low priority.

c. Support of Vung Chua Mountain Signal Site was a major accomplishment during the quarter. The monsoon rains had rendered the road completely impassable to even tracked vehicles. Helicopters were the only means of resupply to the site, and then only during VFR (Visual Flight Rule) weather. During the last week of January, 215 passengers and 63,375 pounds of cargo were transported in 21 flying hours. Sufficient supplies and equipment were air lifted to maintain normal operations with a seven day reserve.

SECTION II

COMMANDER'S OBSERVATIONS AND RECOMMENDATIONS

Part 1. Observations (Lessons Learned)

1. Personnel: None

2. Operations:

   a. ITEM: Plug Supervisory Circuits.

   DISCUSSION: The AN/TTA-6 Van installed at the Qui Nhon Long Distance Switchboard (AN/MTC-9) to provide 4-wire plug supervision and tone ringing over selected trunks has been unsatisfactory. Fluctuation in the signal level along the message path caused false signal and supervisory appearances on the board. The media of cable, microwave, tropo-scatter, and VHF are used to transmit the signals. Eleven trunk circuits were operated on a plug supervision basis between Qui Nhon and Saigon, Cam Ranh Bay and Nha Trang. These have been reduced to one trunk in each group.

   OBSERVATION: It is impractical to interface more than two of the media listed above to work supervisory trunks. The sensitivity of
the TA-187's will not satisfactorily perform over tactical systems some part of which does not meet DCS standards.

b. ITEM: Resupply of Mountain Signal Site

DISCUSSION: Resupply of a mountain signal site is particularly critical during the monsoon season. Unless the access road is all-weather, it becomes completely impassable even by tracked vehicles. The majority of the days during this season finds the top of the mountain completely shrouded in clouds and mist hindering resupply by helicopters. When this method is possible, resupply is further hindered by bulk and weight factors.

OBSERVATION: A mountain signal site is particularly vulnerable to any condition that interrupts normal resupply rate. Fuel is a major problem in that large quantities are required on a continuing basis to sustain operations. Morale of site personnel must also be considered. The continued isolation, limited rations, mail, and recreation are depressing.

3. Training:

ITEM: Cross Training

DISCUSSION: The most important aspect of a training program in the Republic of Vietnam is cross training. This is especially true of small detachments where a variety of equipment is employed. The ability of personnel to know more than one job is essential. If this condition does not exist the results could be, and often are, disastrous.

OBSERVATION: Units arriving in the Republic of Vietnam without benefit of a previously established program are forced into a crash program to develop needed skills at small sites. Personnel must be capable of operating power units, switchboards, carrier equipment, and radio relay equipment in order to accomplish assigned tasks upon arrival.

4. Intelligence: none.

5. Logistics:

a. ITEM: Canvas Turn-in as Part of POM

DISCUSSION: Equipment exposed to the elements deteriorates rapidly. Especially vulnerable are generators. When D Company, 459th Signal Battalion prepared for overseas movement, a technical inspection was performed in the final stages. This resulted in nearly half of the
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vehicle and trailer canvas being turned in for repair with no replacement items being provided.

OBSERVATION: The technical inspection occurred too late in the POM sequence to allow time for repair or replacement of defective canvas.

b. ITEM: Units Arriving from CONUS without Signal PLL.

DISCUSSION: D Company, 1459th Signal Battalion arrived in Republic of Vietnam without signal of electronic PLL because units in CONUS are not required to establish a Signal PLL. They are authorized to stock repair parts. Signal operations have not been affected, but a serious drain has been placed upon repair parts. It is fortunate that a reserve of PLL parts was on hand due to heavy support density of the nine companies formerly assigned to this battalion.

OBSERVATION: Normal supply channels require 180 days to establish valid PLL based on demand data. The intent is to provide the parts needed for continuous operation. Not having this PLL to draw from results in early consumption of repair parts.

c. ITEM: Field Expedient to Dust Problem.

DISCUSSION: One of the major problems confronting electronic maintenance personnel is dust. To solve this problem, shops are routinely inclosed with plywood or masonite. As an alternate for these materials which are in short supply, plastic used to preserve batteries and cover outside storage was available in rolls ten (10) feet wide and approximately 2000 feet in length. This item is in the Engineer supply channels and locally available.

The plastic is used by doubling the sheets and covering the entire walled area leaving approximately two feet open at the bottom. The bottom area is covered with masonite or other suitable material. This arrangement allows light to enter and effectively keeps the dust outside the building. At night the light is reflected into the shop area giving greater illumination from available artificial light.

OBSERVATION: Plastic used as a dust deterrent is an adequate substitute for plywood or masonite in moderate climatic conditions.

d. ITEM: Turn in of FERO I Generators.

DISCUSSION: The FERO I generator is being phased out of the Army. Units are required to turn in the FERO I generator prior to being
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issued the SF 10-MD. Many times the SF 10-MD is not available for issue when turn-in is made. As a result, D Company, 459th Signal Battalion arrived in the Republic of Vietnam short seven (7) sets of SF 10-MD generators.

OBSERVATION: When alerted for overseas movement, generator turn-in should be on a one-for-one basis. Although the FERO I is being phased out of the Army, and parts are no longer available, it is far better to have an operational FERO I generator than no generator at all.

Part 2, Recommendations (Lessons Learned)

Testing should continue on the plug supervisory concept to determine a usable message path which will provide circuit reliability. On site technical assistance from ECOM should be provided for specialized guidance and training.

When mountain sites are considered, the initial plans should include provisions and assign comparable priorities for construction of an all-weather access route capable of sustaining required resupply.

Unit training must stress the need for cross-training of allied MOS's particularly at the team level. Combat loss or temporary absence of a team member may be critical to the operation unless adequate cross-training has been accomplished.

Cross training in companion MOS's must be stressed at team level for all signal units deploying to RVN. Emphasis must be placed on sustaining operations at isolated sites.

Preparation for movement (POM) schedule should require a 100% TI conducted in the early stages of preparations in order that defective items can be repaired or replaced prior to actual deployment.

CONUS units alerted for overseas movement must establish an electronic PLL and have it accompany the unit.

Plastic used as a dust deterrent is an adequate substitute for plywood or masonite in moderate climatic conditions.

Signal units should not be deployed without the full TOE equipment list particularly generator sets.

WILLIAM F. MCCORMICK JR
ITC, SigC
Commanding
1. Transmitted herewith is one copy of Headquarters, 1st Signal Battalion Report, Subject: Same as above.

2. Concur with observations made by CO, 1st Signal Battalion with exceptions noted below.

3. Reference paragraph 4a page 4, personnel shortages as indicated, although critical, are somewhat inaccurate in that the following report was submitted by 1st Signal Battalion previously.

<table>
<thead>
<tr>
<th>% Strength</th>
<th>% Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORL</td>
<td>Actual</td>
</tr>
<tr>
<td>91B Cook</td>
<td>29</td>
</tr>
<tr>
<td>76K Supply</td>
<td>58</td>
</tr>
<tr>
<td>63B Mechanics</td>
<td>36</td>
</tr>
<tr>
<td>31Z Area Comm Chief</td>
<td>36</td>
</tr>
</tbody>
</table>

4. As stated in report, availability of construction materials continues to be a major hindrance because of the low priority assigned to support units. Issue of sandbags and defensive wire has improved; however, it takes approximately six months to receive lights for perimeter lighting at isolated signal sites. This is considered to be entirely too long.

5. As pointed out by the Commander in section II, part 1, paragraph 3, cross training must be an integral part of a unit's training program. All communications personnel in Vietnam, regardless of their experience or
Operational capabilities need to be trained in operations as conducted in Viet Nam. Once an individual is proficient in his primary MOS, he should be cross-trained in a related MOS.

6. As stressed by the Commander, the lack of all-weather roads and the bulk and weight limitations of available helicopters make resupply of communications sites located on mountain peaks a critical area, particularly during the monsoon season. These sites should have an all-weather access road established at the earliest opportunity so that resupply may be accomplished during inclement weather periods. If all-weather access roads can not be constructed, then on-site storage facilities must be built so that the site will have the capability of operating over an extended period of time without resupply.

7. Although generator problems remain as one of the 41st Signal Battalion's prime concerns, action is being taken to complete the installation of permanent power facilities in this Battalion's area, thus relieving some of the pressure on back-up power equipment.

HUNTER L. SHARP
Colonel, SigC
Commanding
SUBJECT: Operational Report for the Quarterly Period Ending 31 January 1967 (RCS CSFOR-65)

HEADQUARTERS, 1ST SIGNAL BRIGADE (USA STRATCOM), APO San Francisco 96307

14 MAR 67

TO: Commanding General, United States Army Vietnam, ATTN: AVC-DH, APO 96307

Commanding General, USA STRATCOM, Washington, D.C. 20315

1. IAW AR 1-19, subject report from the 41st Signal Battalion is forwarded.

2. Concur in Commander's Observations as modified by 1st Indorsement.

3. Concur in Commander's Recommendations with the following comment.

Reference the first recommendation regarding plug supervisory concept. Correspondence has been sent by this headquarters to the Project Manager and Hq USA STRATCOM defining the problems encountered and requesting assistance in solving the difficulties.

FOR THE COMMANDER:

[Signature]
WILLIAM A. HIGGINS
Colonel, SIGC
Deputy
AVHGC-DH (31 Jan 67)  
3d Ind  
SUBJECT: Operational Report-Lessons Learned for the Period Ending  
31 January 1967 (BCS CSFOR-65)  

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96307  

TO: Commander in Chief, United States Army, Pacific, ATTN: GPO-OT  
APO 96558  

1. This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 January 1967 from Headquarters 41st Signal Battalion as endorsed.  

2. Pertinent comments follow:  
   a. Reference Paragraph 2b, Part 1, Section II, Page 8; Paragraph 2, Part 2, Section II, Page 10; and Paragraph 6, 1st Indorsement, concerning all-weather roads: The need for all-weather roads to the mountain signal site is recognized. Many miles of MSR also need urgent upgrading to all-weather conditions, the majority of which is programmed for the FY 68R MCA program. The desired roads for the signal site will be provided when the priority for their construction is raised or when work progresses down the priority list to their project. Base development plans include construction of required roads and priorities for construction. At present, other higher priority projects preclude accomplishment of the all-weather road project.  
   b. Reference Paragraph 4, 1st Indorsement, concerning perimeter lighting: Most of the lighting and fencing projects in USARV are programmed for completion in the FY 67S MCA program, and will be accomplished in accordance with the priorities assigned by the Base Development Planning Board.  
   c. Reference First Recommendation, Page 10, concerning plug supervisory concept: Concur with action taken by 1st Signal Brigade as reported in Paragraph 3, 2d Indorsement.  
   d. Concur with all other unit recommendations, page 10.  

FOR THE COMMANDER:  

[Signature]  
STANLEY E. SCHULZ  
Major, AGC  
Asst. Adjutant General
TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 January 1967 from Headquarters, 41st Signal Battalion (CA) and concurs as modified by the foregoing indorsements.

FOR THE COMMANDER IN CHIEF:

[Signature]

G. R. KOBALY
CPT, AGC
Asst AG