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

IN REPLY REFER TO

AGDA (M) (16 Jun 70) FOR OT UT 701147 19 June 1970

SUBJECT: Operational Report - Lessons Learned, Headquarters, 73d Signal Battalion, Period Ending 31 January 1970

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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

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 73RD SIGNAL BATTALION (SPT)
APO US Forces 96312

SCCPV-NG-SS-OP 14 February 1970

SUBJECT: Operational Report - Lessons Learned, 73rd Signal Battalion (SPT), Period Ending 31 January 1970, RCS CSFOR-65 (R2)

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1. Operations: Significant Activities.

a. General:

(1) This reporting period the Battalion was involved in a multitude of activities and significant changes in personnel and equipment. Re-configurations of communications equipment directed towards revanisation were initiated along with the installation of more reliable and higher quality systems to insure the finest possible communications. Experimentation with and testing of systems within the Battalion has continuously improved communication provided to the subscribers. Substantial changes in the defense posture were made, with particular attention being paid to the reconstruction of ammunition bunkers, fighting bunkers and static defensive measures. The Battalion was engaged in operation for ninety-two (92) consecutive days during the reporting period.

(2) During the reporting period there were several changes in command within the Battalion. On 9 December 1969, Lieutenant Colonel Jack M. Mckee assumed command of the 73rd Signal Battalion (Support) from the outgoing commander, Lieutenant Colonel Louis J. Zelesnikar. Colonel Thomas C. Musgrave, Commanding Officer, 21st Signal Group, was the reviewing officer. Other distinguished guests included Colonel Henry Del Mar, Commanding Officer, Cam Ranh Bay Support Command and Colonel Lee, Commanding Officer, 30th ROK Regimental Combat Team, 9th White Horse Division. On 21 January 1970, Captain Richard Curran assumed command of Company "D", 36th Signal Battalion from Captain Jochen H. Ewing. On 23 January 1970, Major Charles L. Fisher assumed command of Company "E", 43rd Signal Battalion from Captain Weldon C. Patterson. He also assumed the duties as Communications Coordinator in the Dalat area, vice Major Lloyd D. Umbaugh. Major Umbaugh was assigned as the Battalion Executive Officer, the position vacated by Major Fisher

FOR OT UT
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SCCPV-NG-SS-OP 14 February 1970
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On 26 January 1970, Captain Christopher M. Orndorff assumed the position of Battalion S-3, vacated by 1LT Richard E. Finke. On 29 January 1970, WO1 John S. Corbin assumed duties as Personnel Officer, a position that had been vacant for forty-two (42) days.

(3) VIP Visits:

DATE	PERSON (S)	PURPOSE OF VISIT
23-29 Nov 69	Lt Murphy SSG Ellis SP/4 Higgs	Conducted telephone traffic study of Cam Ranh Bay Dial Telephone Exchange.
27 Nov 69	COL Thomas C. Musgrave (CO, 21st Signal Group)	Award site of the Quarter to CO, Company "C", 41st Signal Battalion for Hill 184.
4 Dec 69	COL Martin (Deputy J-6 MACV) COL Pennuel (MACV) COL Geskins (MACV) LTC Saurer (MACV) LTC Chapman (Deputy Group Commander) MAJ Powell (MACV)	Visit Hill 184 Briefing and orientation of the 73rd Signal Battalion at Cam Ranh Bay.
12 Dec 69	MG Thomas M. Riensi, (CG, 1st Signal Brigade)	Attend the Graduation of the Vietnamese National Military Academy, 1st four year class.
22-23 Dec 69	MG Thomas M. Rionsi, (CG, 1st Signal Brigade)	Inspection of 73rd Signal Battalion sites and presentation of awards.
10 Jan 70	BG Jack A. Albright (Deputy Commanding General, 1st Signal Brigade)	Visit of Cam Ranh Bay Dial Telephone Exchange.
22 Jan 70	MAJ Mills CWO Troy (21st Gp Telecom)	Survey CommCenter for new 30 line relay.
27 Jan 70	(1) BG Jack A. Albright (Deputy CG, 1st Sig Bde)	Defense inspection of isolated sites.

	(2) COL James P. Mattern (CO, 21st Sig Gp)	Visit and in-briefing of HHD and Co. "C", 41st Sig Bn.
29 Jan 70	COL James P. Mattern (CO, 21st Sig Gp)	Visit and in-briefing at Co. "D", 36th Sig Bn, and Co "E", 43rd Sig Bn at Dalat.

b. Activities:

(1) Personnel: During this reporting period, the 73rd Signal Battalion has continued to emphasize the awards program as reflected by the number of award recommendations submitted to the 21st Signal Group from this Headquarters. During November, this Headquarters forwarded twenty (20) award recommendations to the 21st Signal Group including eight (8) Bronze Star Medals, eleven (11) Army Commendation Medals and one (1) Certificate of Achievement. For the month of December the Battalion submitted twenty-one (21) award recommendations, including eight (8) Bronze Star Medals, eleven (11) Army Commendation Medals, including two (2) which were presented "on the spot" by Major General Thomas M. Rienzi, and one (1) Certificate of Achievement. In January, there were thirty-nine (39) award recommendations forwarded to the 21st Signal Group. These included one (1) Air Medal, four (4) Bronze Star Medals, sixteen (16) Army Commendation Medals and eighteen (18) Certificates of Achievement. A total of eighty award recommendations were forwarded to 21st Signal Group for this period. There were a total of one hundred sixteen (116) awards received and presented during the quarter. Also, in December this Headquarters submitted to the 21st Signal Group a recommendation for the award of the Meritorious Unit Commendation (second Oak Leaf Cluster). The recommendation covers the period 1 July 1968 through 31 October 1969.

(a) The following is a list of critical MOS shortages within the Battalion:

MOS		AUTHORIZED	ACTUAL
36G20	Manual Central Office Repairman	1	0
36C20	Lineman	78	52
36E40	Cable Splicer	1	0
36H20	Dial Central Office Repairman	7	4
72C20	Telephone Switchboard Operator	75	55

The shortages of personnel in MOS's 36C20, 36H20, and 72C20 are creating a hardship in the operation of the numerous communications sites within

this battalion. There is a critical need for Telephone Switchboard Operators, Lineman and Dial Central Office Repairman. There has been a substantial gain in Radio and Relay and Carrier attendants and Field Radio Relay Equipment Repairman since the last quarterly report which has helped alleviate maintenance and repair problems that have been experienced in this area.

(b) The following are percentages of fill of the battalion's personnel requisitions:

MONTH	REQ	FILL	%
Nov	52	24	48.2
Dec	65	54	83
Jan	85	74	87

(c) Promotions from grade E-6 to E-7 still remain extremely slow. There were two promotions to E-7 in the 73rd Signal Battalion during this quarter. The list below reflects the number of personnel grades E-6 on promotion list to E-7 from the 73rd Signal Battalion.

DATE OF PROMOTION LIST	NUMBER OF EM ON LIST
Nov 69	13
Dec 69	12
Jan 70	12

(2) Intelligence: During this quarter, special emphasis has been placed on physical security. The clearing of vegetation by cutting or burning, and the renovation or replacement of bunkers has been a continual process at all sites.

(a) At Cam Ranh Bay Hill 184, a new ammunition bunker has been constructed and additional concertina was installed around the perimeter.

(b) The perimeter lighting on Kraus Compound was renovated to improve night visibility. Installation of additional claymore mines and relocation of in place mines have upgraded the perimeter security.

(c) At Kraus Compound concertina wire has been replaced and augmented throughout the perimeter. All range cards were remade for each fighting bunker providing personnel with a working knowledge of each bunker's field of fire and dead areas.

(d) Personnel on Lang Bian Mountain have added to the perimeter, tanglefoot and concertina wire as part of the expansion to include the motor pool area in the perimeter and have reconstructed the three (3) mortar pits.

(e) At Pr'line Mountain Site new concertina and tanglefoot wire have been installed. An interpreter/part time advisor has been requested to provide coordination between U.S. and the 153rd R.F. Company stationed at the site.

(f) Project Duffle Bag has proven to be effective at Pr'line Mountain, but not at Lang Bian Mountain. Erosion still remains a problem that will not permit the use of the equipment at Lang Bian Mountain.

(3) Operations:

(a) Organization:

(1) During this reporting period minor alterations were made. The Electronic Maintenance Shops of Company C, 41st Signal Battalion and Company D, 36th Signal Battalion were merged under the S-4 section of the 73rd Signal Battalion, operating from Cam Ranh Bay. This will reduce repair time for the unit's equipment and permit the formation of a mobile contact team for outlying sites. At the end of this quarter the operation section of company "C" was relocated inside a permanent building releasing the two (2) M-292 vans for turn-in, or use elsewhere in the battalion area.

(2) A new microwave system (BBM13) installed from Kraus Compound (Dalat) to Lang Bian Mountain required additional personnel. Detachment 17, 518th Signal Company was attached to Company E, 43rd Signal Battalion to fulfill this requirement.

(b) Training:

(1) Additional emphasis has been placed on individual education improvement throughout the Battalion. Sources of self-improvement that have been brought to the attention of the troops are; the GED Program, USAFI, Army Extension Courses and the aid offered to servicemen through "Project MEMO". There has been an increase in the number of personnel seeking self-improvement due to this information being made available to them. There was also an outstanding response to "Project MEMO".

(2) Command emphasis continues to be placed on all aspects of safety particularly vehicle, weapons, and ammunition safety. Command emphasis will continue to be placed on safety until significant improvements are made.

(3) The battalion continues to make maximum use of courses of instruction allocated to it. The courses of instruction available in-country contribute greatly towards the proficiency of the individual, thereby improving the overall unit proficiency. During the reporting

period, thirty (30) individuals attended various courses of instruction at the USATF 1st Signal Brigade.

(4) Assistance was requested on the operation of TAR-5 equipment used in the DTE. On 26 Jan 70, a team for SEA-TELMA arrived at Cam Ranh Bay Army DTE to conduct training on the TAR-5 equipment. The training was especially beneficial to the 36H personnel of the DTE, however, additional assistance will be required on the test portion of the TAR-5 equipment, and has been requested.

(5) On 4 Dec 69, at Nha Trang, a course of Driver Education Instruction was presented by 1st Signal Brigade representatives. Representatives from HHD, 73rd Signal Battalion, Company C, 41st Signal Battalion, Company D, 36th Signal Battalion and Company E, 43rd Signal Battalion attended the presentation. This training has enabled the battalion to conduct its defensive drivers training and normal drivers training efficiently.

(6) An orientation has been conducted by the Tech Control on Hill 184 for newly arrived 32D and 31N personnel. This orientation has proven so effective that the battalion is now in the process of preparing a similar orientation for all newly arriving 36C and 36E personnel. The orientation will cover the fundamentals of wire communications, pole climbing, telephone installation, safety and problems encountered within the 73rd Signal Battalion area of responsibility.

(c) Logistics:

(1) Power Generators: During the reporting period, there was not a single power generator failure of 20 minutes duration or longer. This was due to the combined effort of a number of positive steps which have been taken in the past to reduce power outages such as; the construction of load banks for daily generator testing, efforts to prevent possible fuel contamination, visits by generator maintenance experts, and prompt reporting and repair action on deadlined equipment.

(2) Mess Operations: Company D, 36th Signal Battalion Mess won the 21st Signal Group Best Mess competition for the months of November and December. It is truly a pleasure to eat in a mess of this caliber, where both sanitation and food preparation are of the highest quality. Also noteworthy was the fact that a beautiful Officer/NCO section was added to the mess and was opened on Thanksgiving Day.

(3) Safety: Sgt.Dennis J. Lovell of Company D, 36th Signal Battalion, who had previously distinguished himself as an outstanding contributor to the company safety and accident prevention program while performing his duties as Cable Platoon Team Chief, won the competetion

at 21st Signal Group for Safety Soldier of the Year. The award included a $25.00 Savings Bond and a 21st Signal Group Certificate of Achievement for Safety.

(4) Supply and Maintenance Bulletin: A monthly Supply and Maintenance Bulletin has been published by the Battalion S-4 containing noteworthy policies and information received during the month from 1st Logistical Command, 1st Signal Brigade, 21st Signal Group, Cam Ranh Bay Support Command, Cam Ranh Bay Depot, and the Cam Ranh Bay Class II and IV DSU. By republishing and condensing the more important policies of higher headquarters and other supply and maintenance activities, it has been discovered that the work gets all the way down to the lowest possible working level, thereby providing better results in supply accounting, requisitioning, and maintenance procedures. The bulletin has also provided an informal means of acquainting the unit supply and maintenance personnel with previously published policies and directives from the battalion level, thereby keeping the incoming personnel abreast of the supply and maintenance situation.

(5) ELM: During the month of December the decision was made to consolidate the Electronic Maintenance Shops of Company C, 41st Signal Battalion and Company E, 36th Signal Battalion into a Battalion Electronic Maintenance Shop effective 1 January 1970. During the month of January, the Consolidated Electronic Maintenance began setting up an Authorized Stockage List of all electronic repair parts stocked by the different PLL's within the Battalion. At this time all electronic maintenance shop PLL's have been converted to Maintenance Shop Stock (MSS) to reduce the work load required by a PLL. Though consolidation has only recently been effected, it is anticipated that the net effect will be a much more efficient ELM operation for the entire battalion.

(6) The Command Maintenance Management Inspection of Headquarters and Headquarters Detachment was held on 29 and 30 December 1969. This was the final CMMI to be performed within the battalion for the calendar year of 1969. All units within the Battalion have now successfully passed the CMMI and only one unit did not pass on the first inspection.

(d) Communications:

(1) Radio: The radio activities during the quarter included the upgrading of terminal equipment and the conduct of several tests of new systems.

(a) During this quarter, the battalion tasked Company E, 43rd Signal Battalion to test a AN/TRC-24 system between Gia Nghia and Ban Me

Thuot East. The profile of the path was very poor for VHF propagation, with obstructions of over 800 feet over a distance of approximately 80 miles. The test first used "A" band frequencies with negative results. Change of polarization and using all possible combinations of "A" band frequencies authorized still produced negative results. Interference was a problem on "A" band which could not be eliminated, so "B" band was tried. "B" band experienced less interference, however, because of the poor path profile no useable signal could be received. This test lasted approximately two weeks, whereupon it was decided to try a relay at Lang Bian Mountain, which provided better profile paths. The Lang Bian Mountain to Ban Me Thuot East leg of the system was operational in a minimum of time using "A" band frequencies. The Lang Bian Mountain (LBM) to Gia Nghia (GIA) leg of the system experienced trouble due to the overcrowded conditions of the "A" band frequencies at Lang Bian Mountain. "B" band was tried because of the frequency problems in "A" band. "B" band frequencies could not provide a strong enough signal over the poor profile path. It was then decided to deactivate the entire project, which was done on 3 December 1969.

(b) During this past quarter this battalion reterminated the BBH2C, AN/TRC-24 VHF system from Ban Me Thuot to Ban Me Thuot East. The better signal path improved the quality and stability of the system. In the past this system was marginal due to its extended length, and terrain obstructions.

(c) During this past quarter this battalion replaced three AN/GRC50, UHF systems with one forty-five (45) channel AN/TRC-29 microwave (MW) system, between Dalat (DLT) and Lang Bian Mountain (LBM). The system path from Dalat (DLT) to Lang Bian Mountain (LBM) is five miles, and line of site. The system equipment was acquired from a recent deactivation of system BBM02 within the Battalion. The system was operational on 18 Nov 69, and all the CACS circuits were switched within a week. At the end of the reporting period orders had not been received to reroute the circuits from the DCA VHF systems to the microwave.

(d) During the month of December 69, this Battalion was tasked in an emergency to provide an additional 12 channels of AN/TRC-24 equipment between Lang Bian Mountain (LBM) and Ban Me Thuot East (BTE). With adequate equipment on site the system was installed and operational in a minimum time. This system fulfilled it's role as an emergency backup for the 77UT4P TROPO system and was deactivated the second week in January.

(e) During January 1970, this Battalion installed an HF radio station at Lien Khang for the Tuyen Duc Training Center. Equipment used was a KWM2A with double long wire antenna cut for station frequencies

allocated. The station is operated by the Tuyen Duc Training Center personnel but this Battalion provides maintenance and owns the equipment.

(f) During this reporting period this Battalion installed an RWI FM station at Phan Thiet (PNT). This station provides local commanders, staff and other common users with RWI service throughout the PNT area. In addition, the RWI net provides telephone access into the Phan Thiet (PNT) switchboard for outlying points having no other means of communications. The RWI FM net service was placed in operation on 27 January 1970.

(2) Wire: Wire activities during this quarter were high-lighted by continued cable rehabilitation projects to upgrade existing cable plants and the beginning of plans to extend dial telephone service to Dong Ba Thin.

(a) At Cam Ranh Bay the project to rehabilitate cable CA-Ø6 was begun during the last reporting period and completed during this quarter. The project was designed to upgrade service to several areas of importance which included the Mini-Trailer Park (Senior Officers' Quarters), Naval Support Facility, and the 24th Transportation Battalion Headquarters area (formerly the 36th Transportation Battalion). The new 300 pair aerial cable replaced a portion of TK-2, the old CA-Ø6, and a 100 pair leg serving the 24th Transportation Battalion Headquarters area.

(b) On 12 November 1969, the Cam Ranh Bay Army Dial Telephone Exchange installed three (3) direct dial circuits to Cam Ranh Bay North. The circuits were installed in the 22nd Replacement Battalion Operations, Liason Office, and the 526th Replacement Company. With the installation of the circuits, the R & R Center will have ready access to overseas trunks to R & R locations to facilitate connections and other problems of personnel concerning R& R.

(c) With the installation of the new microwave system on Lang Bian Mountain, an additional patching facility had to be installed. An SB-675 was installed to augment the AN/MSQ-73 and absord the circuits of the microwave system. This increased the circuit and system capacity at Lang Bian Mountain Tech control.

(d) A major cable rehabilitation project was completed in the Dalat area by a team from the 578th Signal Company. Over 17,000 feet of cable was either repaired or rerouted throughout the area, and the 25 pair cable from Kraus Compound to the Vietnamese Military Academy was relashed and rerouted.

The cable on Kraus Compound was completely rehabilitated with the building of a new frame adjacent to the switchboard, UHF, and microwave area. Approximately 18 poles were installed throughout the Dalat area to raise cable at critical points such as road crossings to prevent any cable from being accidentally pulled down by vehicles.

(e) In late November, Company C, 41st Signal Battalion, was experiencing troubles on the TK-3 cable in Cam Ranh Bay. An extensive rehabilitation project was initiated by the 3rd Platoon, 578th Signal Company to open and rework each splice on the cable, and then to check the cable back to the DTE. There were approximately sixty (60) working pairs on the pair cable when the project began and 237 working when the project was completed.

(f) During the latter part of December and early January, an extensive clean-up program for the Cam Ranh Bay Army Depot area was initiated to police up old drop wire, field wire, and unused cable. After the clean-up telephones were redistributed where needed to facilitate the accomplishment of the mission of Cam Ranh Bay Army Depot.

(g) During the month of January, several meetings were held between the 73rd Signal Battalion and 1881st Communications Squadron at the Cam Ranh Bay Air Base concerning the extension of dial telephone service to Dong Ba Thin from the new Air Force Dial Central Office. A letter of instruction was prepared and signed by both units to be forwarded to each unit's respective higher headquarters outlining the responsibilities of the Army and Air Force. Two civilian engineers were sent by 1st Signal Brigade to engineer the project.

(h) On 15 January 1970, an assistance team from SEA-TELMA, 1st Signal Brigade, arrived in Cam Ranh Bay to assist the Cam Ranh Bay Army DTE in trouble shooting tandem circuits. The team gave instruction on trouble shooting techniques and corrective measures to be taken for clearing the troubles. The team also instructed DTE personnel in what actions to take in reporting troubles for faster restoration of circuits.

(3) CommCenter:

(a) During January a site survey of Cam Ranh Bay Army Communications Center was conducted to determine the materials and work that would be necessary to convert this facility to a relay as per USARV CE LOI-1, dated 30 December 1969.

(b) The equipment will consist of five (5) FGC-70's, each of which has 12 TD's and is capable of terminating six (6) circuits.

The normal load on a single FGC-70, however, is four (4) circuits. In addition, the CommCenter will operate a Tape Recall Unit (TRU), which has already arrived, and a complete Automatic Message Addressal Readdressal System (AMARS) system consisting of up to eleven (11) reperforators, two (2) routing consoles and a control console. Also it will have its own technical control with a 48 line configuration on both red and black panels. The circuits will be secured with sixty (60) KW-7's for the relay and a KG-13 for the autodin terminal.

(c) The DESTE, which is programmed for this facility sometime after March, will be the "BE" configuration, both high and low speed. It will replace the present UNIVAC 1004 as our link to the world-wide net. This is a great deal more equipment than had been originally expected. Consequently, the earlier floor planning and traffic flow diagrams had to be completely revised.

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

a. Personnel.

(a) Observation: Under the pending MTOE 11-116G003 for HHD, 73rd Signal Battalion no authorization exists for a Personnel Section within the battalion. The current MTOE 11-116GD003 contains an authorization for only four personnel within the Personnel Section.

(b) Evaluation: Based on the mission of this battalion, to support from five to seven companies, a personnel section, comprised of the following personnel would be required to provide personnel services to seven companies totaling 1400 personnel.

DESCRIPTION	GRADE	MOSC	TOTAL REQUIRED
Unit Personnel Technician	WO	711A	1
Personnel Sergeant	E-7	71H40	1
Personnel Management Specialist	E-5	71H30	1
Senior Personnel Records Specialist	E-5	71H20	1
Senior Personnel Actions Specialist	E-5	71H20	1
Administration Specialist	E-5	71L20	1
Assistant Personnel Management Specialist	E-4	71H30	3
Personnel Records Specialist	E-4	71H20	6
Personnel Records Reports Clerk	E-4	71H20	1
Personnel Action Specialist	E-4	71H20	3
Clerk Typist	E-4	71B20	1
General Clerk	E-3	70A10	1

(c) Recommendation: That the first modification submitted to MTOE 11-116G003, incorporate the above changes.

b. Intelligence.

(1) Use of salvage POL DRUMS

(a) Observation: Because of the depression in which the 73rd Signal Battalion Beaver Site is located, the ELM shop was having difficulty in constructing fighting positions which would allow adequate observation for the sentry.

(b) Evaluation: A material was needed that would withstand the elements, give adequate height to the fighting position, and provide the sentry with adequate protection allowing him to observe his surroundings.

(c) Recommendation: A fighting position was constructed by laying Pierced Steel Planking (PSP) on the sand and standing sand filled 55 gallon drums on the PSP in a horse shoe shape. More PSP was placed atop the drums and sand bags stacked on top to make a very good above ground fighting position.

c. Operations. None

d. Organization. None

e. Training. None

f. Logistics.

(1) Tactical Air Conditioners::

(a) Observation: The 5KW Tactical Air Conditioner Generators are not being operated under load.

(b) Evaluation: A double throw, 3 pole switch FSN 5930-221-6062 would enable the operator to change from primary power to the generator power to operate the generator under the actual conditions it was designed for.

(c) Recommendation: Install a switch by the generator to change from primary power to generator power to operate the air conditioner.

(2) Prescribed Load Lists:

(a) Observation: Very few school trained repair parts specialists have been assigned to the battalion over the past months. Without trained personnel the condition of the PLL's have stayed the same or deteriorated, but have not significantly improved.

(b) Evaluation: Informal classes conducted at the unit by personnel from the Battalion S-4 section have greatly increased the knowledge of the PLL clerks concerning PLL procedures, particularly in regard to the local directives.

(c) Recommendation: That classes be continued and that they be conducted on a monthly basis. Classes should be given in an informal atmosphere and on a discussion level.

(3) Expendable Supplies:

(a) Observation: Significant amounts of expendable supplies are in a shortage status either because they are unavailable or because they have a significantly shortened shelf-life due to climatic conditions in the Republic of Vietnam. This is particularly true of gummed items as humidity will activate the glue and cause the materials to stick together and require that they be thrown out.

(b) Evaluation: Plastic bags, when used for storage of these items, will eliminate the problem. Bags are available from supply channels for large items. By having supply personnel open the bags carefully they can be salvaged and used to store these materials at no extra cost to the government. While the monetary savings are not large, the savings in overhead labor of avoiding having to "scrounge" to replace the ruined materials or having to order them through supply channels are significant. Large plastic bags are issued by the APO to protect mail in mailbags from dampness. When reclaimed by clerical personnel from the mail bag, these bags can be used to store whole boxes of envelopes and protect costly blank forms and stocks of mimeograph paper from dirt and dampness. The money saved by this protection is considerable. Postage and handling charges of blank forms are reduced, supply personnel are not tied down replenishing stocks damaged by the climate, and the unit cost of these items are themselves saved. The bags employed are all salvage items whose primary purpose has already been met.

(c) Recommendation: That all clerical personnel inventory their supplies and determine which of these items are susceptible to water and dirt damage and that they take immediate steps to protect them with these bags which are available at no additional cost to the government.

(4) Perimeter Clearing:

(a) Observation: Brush and grass outside the perimeter of the Company D, 36th Signal Battalion Headquarters compound has traditionally been a problem to control, especially during the monsoon season when the additional standing water made burning difficult and afforded the vegetation an opportunity to grow at a faster than normal rate. Cutting proved ineffective, as did random burning. Time spent disconnecting the Claymore mines, spreading the diesel fuel where it was needed, labor costs, and time spent cutting grass with hand tools, and other overhead costs involved were much more expensive than they should be. Unit cost of the fuel expended was significant.

(b) Evaluation: A grader and earth mover were borrowed from Air Force Red Horse. The Claymore mines were disconnected, wire moved where necessary, and the entire perimeter area was scraped beneath topsoil level and graded to afford run-off of water. The visibility was improved significantly, and personnel are dispatched with tools and fuel to eliminate clumps of vegetation as they appear. This will insure against any significant amount of vegetation being allowed to grow, and will reduce the cost of keeping the perimeter cleared. Savings to the government and improved protection have made this a significant improvement.

(c) Recommendation: Recommend that where possible all perimeter areas be graded by machine to remove vegetation. Once the perimeter has been cleared, vegetation can be controlled with preventive burning and cutting. Grading should be performed to insure water run-off which will further reduce the amount of brush and grass. Closely monitered, this program will reduce the danger from Vietcong and NVA sapper attacks. Clearing and grading frees expensive POL products for their intended use, reduces the amount of additional personnel who must stand ready with fire-fighting equipment, and lowers the number of man hours spent on perimeter maintenance.

g. Communications:

(1) Teletypewriters:

(a) Observation: The teletype operators sometimes leave the teletype motors operating when the machine is not being operated.

(b) Evaluation: A 30 second signal activated motor stop relay in series with the teletype signal line will eliminate this problem.

(c) Recommendation: The teletype section of the Consolidated Electronic Maintenance Shop is working on this idea at the present time. When it is perfected it will be turned in as a suggested improvement

for all teletype machines within the command.

(2) Use of a modified TA-510 telephone:

(a) Observation: In using the TA-312/43 in trouble shooting the circuits running through the AN/MSQ-73 van valuable time was lost in coming up on the circuit and sending the various test tones.

(b) Evaluation: A means was needed whereby the controller could apply these test tones while continuing to monitor the circuit with his telephone.

(c) Recommendation: A standard TA-510 can be modified with the addition of two switches, one push button and an indicator lamp. This piece of equipment is capable of sending 20, 1600, and 2600 HZ rings. The indicator lamp depicts incoming rings. The first switch is capable of sending a 1000 HZ test tone at 0db or -4db. The second switch allows entrance into tandem circuits by the use of E&M converters if the circuit must be tested. This phone can be hard wired into a spare block and have a two and four wire capability on the patch bay. Valuable time is saved in that only one patch cord is needed during trouble shooting procedures.

(3) Dial Tone Trouble:

(a) Observation: It was found that repeated telephone troubles were being called into the DTE from Cam Ranh Bay North with the same symtoms.

(b) Evaluation: An Installer was dispatched to check on these telephone troubles and found it was the lack of dial tone. Instruments were changed and lines checked but the dial tone was slow in coming as you had to wait from five (5) to twenty (20) seconds after picking up the receiver.

(c) Recommendation: A check was made in the DTE on the line relays. It was determined that this was caused due to the distance from the DTE to Cam Ranh Bay North. The line relay was readjusted to operate at a higher resistance thereby eliminating the problem.

(4) 24 Channel Operation with AN/TRC-24:

(a) Observation: A test of 24 Channel operation was conducted using one (1) AN/TRC-24 and two (2) AN/TCC-7's in parallel. During this test only one AN/TCC-7 would pass traffic.

(b) Evaluation: It was found that only the transmitter T-302 B/TRC

and receiver R-417/TRC Purchase Order # 15263-PP-63 would be compatible for such a system because of the baseband frequency requirements.

(c) Recommendation: To install a system such as this, the impedence pad for the AN/TCC-7 should be made up of 15 ohm resistors for the receive side and 22 ohm resistors for the transmit side. The radio system should be composed of a T-302 B/TRC and R-417/TRC Purchase Order # 15263-PP-63.

h. Materiel: None.

i. Other: None.

Jack M. McKee

1 Incl
Org Chart

JACK M. MCKEE
LTC, SigC
Commanding

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SCCPV-NG (14 Feb 70) 1st Ind
SUBJECT: Operational Report - Lessons Learned, 73rd Signal Battalion (SPT), Period Ending 31 January 1970, RCS CSFOR-65 (R2)

DA, HEADQUARTERS, 21ST SIGNAL GROUP, APO 96240, 27 February 1970

TO: SEE DISTRIBUTION

1. Subject report is forwarded IAW 1st Signal Brigade Supplement 1 to AR 525-15.

2. This headquarters has reviewed the basic report and concurs with the information contained therin with the following comments and/or exceptions:

a. Paragraph 2a, page 11. Under the pending MTOE for HHD, 73rd Signal Battalion, the following positions are authorized:

Description	Grade	MOSC	Authorized
Unit Personnel Technician	WO	711A	1
Personnel Sergeant	E-7	71H40	1
Personnel Management Specialist	E-5	71H30	1
Clerk Typist	E-4	71B30	1

In addition, each of the following companies under the 73rd Signal Battalion is authorized one Personnel Records Specialist, 71H20, in the grade E-4: 556th Signal Company, 510th Signal Company, and the 542nd Signal Company. Under the new organization, the 73rd Signal Battalion will consist of three subordinate companies and two detachments, with an authorization totaling 661 personnel. This is in correction to the seven companies totaling 1400 personnel as stated in referenced paragraph.

b. Paragraph 2f (2) (c), page 13. The existing shortage of school trained repair parts specialists increases the need for brigade, group and battalion level PLL instruction. While the shortage of personnel trained in this specialty requires some cross-training, the forthcoming 1st Signal Brigade PLL regulation will necessitate some retraining of

SCCPV-NG (14 Feb 70) 1st Ind 27 February 1970
SUBJECT: Operational Report - Lessons Learned, 73rd Signal Battalion (SPT), Period Ending 31 January, RCS CSFOR-65, (R2)

all repair parts personnel. The group PLL supervisor's course will be repeated in the near future, incorporating any changes in procedure generated by the new regulation.

James P. Mattern
JAMES P. MATTERN
Colonel, SigC
Commanding

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2 - ACS FOR, DA, Washington, D.C. 20310
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5 - Co, 73rd Sig Bn, APO 96312

SCCPV-OP-AD (14 Feb 70) 2d Ind
SUBJECT: Operational Report - Lessons Learned of Headquarters, 73d Signal Battalion for Period Ending 31 January 1970, RCS CSFOR-65 (R2)

DA, HQ, 1st Signal Brigade (USASTRATCOM), APO 96384 13 March 1970

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

1. Subject report is forwarded in accordance with AR 525-15.

2. The following comments are made:

a. Reference item "Critical MOS Shortages", para 1b(1)(a), page 3: The shortage has greatly decreased since the reporting period. However, a shortage still exists in MOS 36C20, 36E40 and 36H20.

b. Reference item "Tactical Air Conditioners", para 2f(1), page 12: A 5 KW tactical air conditioner is supplied with a 5 KW generator as a component. This headquarters is taking action to determine the feasibility of application.

c. Reference item "Prescribed Load List, para 2f(2), page 12: This headquarters has recognized a need for education of repair parts clerks and established a five day PLL course within the USA Training Facility. This course is offered every week and fifteen personnel are being trained in proper repair parts procedures with each class.

d. Reference item "Expendable Supplies", para 2f(3), page 13: Concur with the comment. Plastic bags of various sizes are available in the Army supply system. They are procured and stocked by GSA and may be requisitioned by the using unit.

e. Reference item "Teletypewriters", para 2g(1), page 14: Teletype equipments incorporate an on-off switch for the purpose of turning the motor off when not required. Additionally, a strapping option is available for turning the motor off by activating the upper case "H". Therefore, the recommended solution is not feasible. However, additional emphasis should be placed on operator training to insure they utilize existing equipment functions rather than installation of a modification to accomplish the same purpose.

f. Reference item "Dial Tone Trouble", para 2g(3), page 15: The action recommended to eliminate the unusual delay of dial tone was correct. The problem caused by the high resistance of a long cable run should have first been noticed when telephone lines to CRB North were

installed, provided proper resistance tests and adjustments made at that time, in accordance with para 59, TM 11-2103. Also, during the weekly maintenance of line relays, as recommended in para 27, TM 11-2101, any changes in adjustment would be detected and corrected. In addition, it is recommended that loop resistance of each line be recorded on line record cards to show the resistance prior to adjustment of the relay. This will provide a record for later quick reference, showing those lines with unusually high resistance and which would be potential "problem circuits".

FOR THE COMMANDER:

O. V. BONEBRAKE
Major, AGC
Adjutant General

CF:
Commanding General, US Army Strategic Communications Command.
ATTN: SCC-OPS-RT, Ft. Huachuca, Arizona 85613
Commanding Officer, 21st Signal Group, APO 96240
Commanding Officer, 73d Signal Battalion, APO 96312

AVHGC-DST (14 Feb 70) 3d Ind
SUBJECT: Operational Report - Lessons Learned, 73rd Signal Battalion (SPT), Period Ending 31 January 1970, RCS CSFOR-65 (R2)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96375 23 MAR 1970

THRU: Commanding General, United States Army Strategic Communications Command-Pacific, APO 96557

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

This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 January 1970 from Headquarters, 73rd Signal Battalion and concurs with the comments of indorsing headquarters.

FOR THE COMMANDER:

C. E. MICHELS
MAJ, AGC
Assistant Adjutant General

Cy furn:
73rd Sig Bn
1st Sig Bde

SCCP-OP3 (14 Feb 70) 4th Ind
SUBJECT: Operational Report - Lessons Learned, 73rd Signal Battalion (SPT), Period Ending 31 January 1970, RCS CSFOR-65 (R2)

Headquarters, U.S. Army Strategic Communications Command-Pacific, APO San Francisco 96557 10 APR 1970

TO: Commander in Chief, U.S. Army, Pacific, ATTN: GPOP-DT, APO 96558

1. Subject report is forwarded in accordance with AR 525-15.

2. This headquarters has reviewed and concurs with subject report as indorsed.

FOR THE COMMANDER:

Frank C. Mahin

FRANK C. MAHIN
COL, GS
Chief of Staff

CF:
Commanding General, U.S. Army, Vietnam, APO 96375 (w/o incl)
Commanding General, 1st Signal Brigade (USASTRATCOM), APO 96384 (w/o incl)
Commanding Officer, 21st Signal Group (USASTRATCOM), APO 96240 (w/o incl)
Commanding Officer, 73rd Signal Battalion (USASTRATCOM), APO 96312 (w/o incl)

GPOP-DT (14 Feb 70) 5th Ind
SUBJECT: Operational Report of HQ, 73rd Signal Battalion (SPT) for Period Ending 31 January 1970, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558 22 APR 70

THRU: Commanding General, US Army Strategic Communications Command, Fort Huachuca, Arizona 85613

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

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

L.M. OZAKI
CPT, AGC
Asst AG

CF:
DA, ACSFOR
CG, USASTRATCOM-PAC

SCC-PO (14 Feb 70) 6th Ind
SUBJECT: Operational Report of HQ, 73rd Signal Battalion (SPT) for Period Ending 31 January 1970, RCS CSFOR-65 (R2)

HQ, US Army Strategic Communications Command, Ft Huachuca, AZ 85613
29 APR 1970
TO: Assistant Chief of Staff for Force Development, Department of the Army, Washing[illegible] D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER:

for W. O. POLSTON
Maj, AGC
Asst Adj Gen

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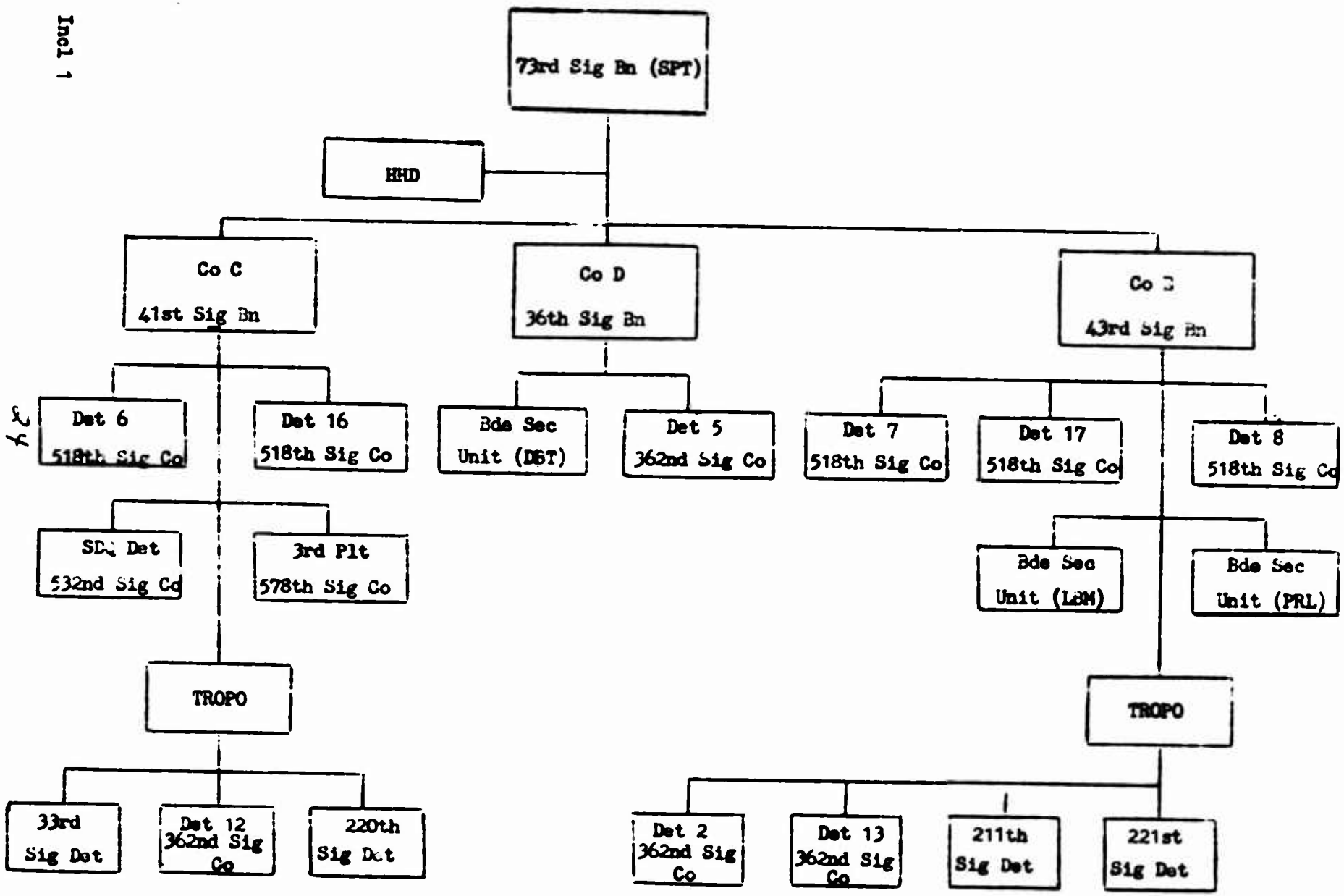
Incl 1


73rd Sig Bn (SPT)
HHD
Co C
41st Sig Bn
Co D
36th Sig Bn
Co E
43rd Sig Bn
Det 6
518th Sig Co
Det 16
518th Sig Co
Bde Sec
Unit (DET)
Det 5
362nd Sig Co
Det 7
518th Sig Co
Det 17
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Det 8
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CO, 73d Signal Battalion

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