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AUTHORITY
AGO D/A ltr, 29 Apr 1980
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22 December 1969


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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
Major General, USA
The Adjutant General

[Signature]

1 Incl

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 361ST SIGNAL BATTALION
APO SAN FRANCISCO 96312

ROCHEN-CO

4 August 1969

SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969 (MCS CSFOR-65) (WHEN 99-00)

Commander in Chief, United States Army Pacific, ATTN: GPO7-OT, APO 96500
Commanding General, United States Army Vietnam, ATTN: AVHRG-WH, APO 96361
Commanding General, USSTRATCOM-PAC, Schofield Barracks, Hawaii, APO 96357
Commanding General, 1st Signal Brigade, (USSTRATCOM), ATTN: Soccop, APO 96354
Commanding Officer, U.S. Regional Communications Group (Viet), ATTN: LCGP-VG-HO, APO 96243


a. Since early May, Hue Detachment, Co B, 361st Signal Battalion, has been training one of the 15 recent graduates of the Army of the Republic of Vietnam (ARVN) technical controller course. Throughout this on the job training the ARVN technical controller has shown himself to be cooperative, eager to learn and competent. The impact of ARVN technicians being integrated into the Integrated Wideband Communications System will become more apparent as greater numbers of ARVN personnel become available to take up positions within the IWS structure and start to carry a significant proportion of the work responsibilities.

Three contingency tours and three company SYSCOMs formerly not authorized are now allocated personnel though several limited technical control facilities and cable head manning still represent a drain on personnel resources beyond the usual technician shortages experienced by this Battalion. The new NCOE provides for an increase in the number of mission essential supervisory personnel and technicians.

c. On 15 June 1969 the consolidated property book maintained under the former Table of Distribution and Allowances (TDA) was decentralized to the individual company Headquarters as a result of the reorganization of Long Lines Battalion North to the 361st Signal Battalion. This move enables the property accountability records to be kept closer to the property receipt holders for more accurate accounting of property.

d. The training program formerly provided for in the Letter of Instruction on the Memorandum of Understanding for FY 69 for Page is no longer in effect and has been replaced by a more flexible program under the new Page contract of 1 July 1969. Page is now required to furnish informal OJT maintenance training at each site manned by contractor personnel. This training is to begin when a new man is assigned to the site and continue until qualified to the satisfaction of the Page site supervisor. The basic requirement of this training is practical participation, discussions, demonstrations and hands on equipment operation.

e. On 1 July 1969 the military assumed responsibility for the INCS nodal site—Proscribed Load List (PLL) formerly maintained by Page
Communications Engineers Inc. Page is still required to maintain an Area Maintenance and Supply Facility and to resupply the site PLS of supported systems.

f. The Nha Trang and Tan Son Nhut tandem switch centers with a total of 560 circuits were activated during July. The 22I circuit tandem switch at Nha Trang was activated on July 7 over two weeks ahead of schedule. Extensive planning and preparation by technical controllers and activations personnel in tandem switch equipment and test procedures contributed significantly to the smooth and rapid cutover. Work was also begun on the installation of the Pleiku tandem switch during the past quarter. The Tandem Switch itself will be operated by the Air Force at the Pleiku site; however, the Pleiku IMCS site will be responsible for all of the Tandem Switch Circuit activations. The Tandem Switch is scheduled for completion on 31 January 1970.

g. On 15 July 1969, the Company C Syscon/Message Center was organized in the Headquarters building at Qui Nhơn. The Syscon has the capability of monitoring the 55-1 reports from both Pleiku and Vung Chua Mountain and relaying the information to Battalion Syscon. The message center is expected to greatly decrease the amount of correspondence and pamphlets which were misplaced and greatly speed up the time in which these items reach the respective sites.

h. The Trang IMCS site placed an IM/GRC-170 into operation on 16 July 1969. Similarly the Pleiku IM/GRC-85 shot to Vung Tcu was upgraded by the installation of an IM/GRC-170. This modification of the IM/GRC-85
SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969 (RCS GEFON-65) (TA99-99-00)

replaces the REL-2500 Low Level tube type radio frequency equipment. The greatest benefit derived from the installation of the AN/GRC-170 is the reduction of required maintenance and a more stable communications system.

1. On 17 July 1969 the last Phase III site in the area, Dong Ba Thin, was activated by Page C&I personnel. Testing prior to this date was conducted by Page C&I and monitored by personnel from 1st Signal Brigade acceptance team. The site utilizes the AN/TSC-82 terminal consisting of the AN/FRC-109(V) microwave equipment and the AN/FDC-17 multiplex equipment on a link (77UN7C) to Cam Ranh Bay, site 24. To date 21 circuits have been activated on the link.

2. A real time accountability program was proposed to the Commanding General, 1st Signal Brigade this quarter. The plan would essentially utilize the present Regional Communications Group E/M equipment listings with minor format adjustments. This method will provide accountability for approximately 90% of the IMCS equipment on a real time basis and will be more responsive to IMCS equipment status and control than the present manual system. However, this will not alleviate the need for strict drawing and configuration control. Lost, damaged, and destroyed equipment will still be accounted for in accordance with LR 735-35. This new program is presently under an in depth study by Higher Headquarters. (See attached enclosure.)

3. At the present time there are 819 personnel assigned to the Battalion. While this represents a significant increase over the 752
authorized under the Long Lines North organization, it does not meet the present requirements of the 361st Signal Battalion's 977 personnell authorization. Mission essential personnel assignments continue at reduced levels. Presently 26V20 assignments are at 67% of authorized levels, 32D20 is at 57% of authorized levels and 32E20 at 75% of authorized personnel. Supervisory personnel of these same categories (26V40, 32D40, 32E40) are currently showing fill ratios of 74% for 26V40, 38% for 32D40, and 13% for 32E40 of authorized levels. Shortages in these critical MOS's, particularly 32D40 and 32E40, have a deleterious effect on communication.

1. As of 31 July 1969, the following groups and/or supergroups were activated during the quarter:

- 77UZ3G: INL/DINH - 17 May 1969
- 77UZ6Q: SGN/CRL - 14 June 1969
- 77UZ3W: INL/TSH - 17 June 1969
- 77UZ3T: INL/CINH - 20 June 1969
- 77URN7H (SUP 1): CRB/DBT - 17 July 1969
- 77URN7C (System): CRB/DBT - 17 July 1969

The following teletype composite tone trunks were activated on 8 June 1969:

- 77UX7E: DNG/TCG-DNG/RLT
- 77UX7F: DNG/TCG-DNG/RLT

2. Section 2, Lessons Learned: Commanders Observations, Evaluations, and Recommendations.

   a. Personnel
RCRCH-00

SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969 (ROS CN-OR-65) (WHEN 99-00)

1 August 1969

(1) Personal Replacement for Critical MOS's.

(a) OBSERVATION. Mission essential MOS's display extremely reduced manning levels for the quarter.

(b) EVALUATION. Critical shortages in mission essential MOS's compound the operation difficulties of the Battalion and reduce the effectiveness of the IMCS.

(c) RECOMMENDATION. Replacement rate of mission essential MOS's should be increased. This is particularly true for MOS 32E40, 32D, 71H, and supply MOS's 76U20 and 76U40.

b. Operations.

(1) Tandem Switch Cutover.

(a) OBSERVATION. Nha Trang tandem switch cutover was completed smoothly and efficiently. The only problems encountered were the lack of test equipment to test multifrequency trunks and marginal microwave tactical systems that would not meet DCA specifications.

(b) EVALUATION. The smooth cutover operation was the result of extensive training and coordination by activations technicians throughout the Battalion. Technical control personnel at IMCS TCG borrowed a test set from Switching Center (SWC) to insure that N. F. pulses and supervisory signals were transmitted correctly.

(c) RECOMMENDATION. Recommend that IMCS technical control, supporting Tandem Switching Centers, be furnished with N. F. test set Stromberg - Carlson type S-433871 for coordinating the alignment of microwave circuits.
(2) **Tendon Switch Circuit Routing.**

(a) **OBSEVATION.** Some tendon switch circuits supporting the line Trong Tendon Switch were routed over substandard tactical systems.

(b) **EVALUATION.** Inferior common user communication service has resulted because tendon switch circuits were routed over substandard tactical systems.

(c) **RECOMMENDATION.** Immediate action should be taken to provide a high quality IN/PCS-109(V) / IN/PCS-17 link between Hon Trung and Cam Ranh Bay. This can be accomplished principally from IN/PCS-109 assets available from sites deleted in the Republic of Vietnam and Thailand.

(3) **Priority Designation of Composite Toco Trunks.**

(a) **OBSEVATION.** At Nha Trung a 20 priority VFTG trunk (16 channels of teletype on one voice frequency channel) was reported as an outage. Trouble shooting revealed that it was pre-empted by a higher priority circuit (10) in spite of the fact that the original tune pack carried three 14 priority circuits.

(b) **EVALUATION.** This problem would not have occurred if the VFTG trunk had a priority assignment equal to the highest circuit priority being carried thereon.

(c) **RECOMMENDATION.** VFTG trunks should be given the priority of the highest priority circuit that they carry. Also since VFTG trunks provide service to 16 subscribers they should be preempted only as a last resort when all other preemption possibilities have been exhausted.

(4) **IN/AMC-85 Van Air Conditioners.**
SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969 (RCS OS/FP-69) (NMZ 99-00)

(a) OBSERVATION. The air-conditioner outlet blower is installed to blow the hot used air out and down. Since the intake for fresh air is directly below this outlet, the hot warm air is being taken back into the van.

(b) EVALUATION. This has caused excessive wear on the air conditioners since the absorption of this hot air has increased the time required to cool the van.

(c) RECOMMENDATION. That deflection ducts be added to the top of the roof to eliminate this hot air being taken in by the vans.

(5) Wooden-base Bunkers.

(c) OBSERVATION. Bunker #16 on Vung Chua Mountain was examined and it was found that its wooden floor and supports had deteriorated to the extent that the bunker was a hazard.

(b) EVALUATION. Due to the dampness and general climatic conditions in Vietnam, it has been found that bunkers constructed of wood and sand bags deteriorate at a completely unacceptable rate.

(c) RECOMMENDATION. Recommend that all future bunkers which are located at fixed installations and are to be utilized for an extended time be of concrete base type, and that the use of wood and sand bags be held to a minimum.

(6) REL-2600 Equipment Modification.

(a) OBSERVATION. Field Engineering Work Order (FEWO) # 46.01-P003 requests a modification be made to the REL-2600 Traveling Wave Tube (TWT) power supply. It consists of adding two wires to connect various...
pins of two relays to provide a forward power alarm in the event of T.T
power supply failure. If the relays are removed, their sockets have a
series of numbers on them denoting pin numbers. In 3 out of 4 power
supplies at the in Kho site, one power supply at Nha Trang, and one at
Ben No Thout, it was noted that the relay sockets were reversed at
assembly which caused an inconsistency between the socket pin numbers
and the actual circuit pin number. In other words, the pin labeled
"pin #5" on the socket actually corresponded to pin #1 in the circuit,
and so forth.

(b) EVALUATION. If the modification were attempted using these
socket pin numbers, the two wires constituting the modification would
be placed on the wrong pins. Damage would certainly result from high
current if the T.T power supply were to be put into operation using
these connections. Therefore care had to be taken when performing the
modification to preclude this from happening.

(c) RECOMMENDATION. Prior to performing any FELDs, site OICs and
NCOICs should carefully analyze them for discrepancies. Further FELDs
should be processed as HQs through normal USSTRATCOM/USNIC channels
prior to implementation in the field, as they may have an impact on
documentation and life-cycle support.

(7) Limited Technical Control Facilities.

(a) OBSERVATION. The 361st Signal Battalion is operating limited
technical control facilities at Nha Trang (TCL) and Da Nang (THT) which
are not authorized personnel under the present NATO.
SUDJECT: Operational Report for the Quarterly Period Ending 31 July 1969 (RCS GEP01-65) (WHEN 99-00)

(b) EVALUATION. The operation of limited technical control facilities which are not authorized personnel represents a severe drain on the technical personnel resources of this Battalion resulting in sub-standard service. In addition these technical control facilities provide substandard circuit test and conditioning capabilities compared to that which is available in the adjacent ICS technical control.

(c) RECOMMENDATION. Responsible commands should plan and immediately initiate the actions necessary to cutover the circuits in those facilities to the ICS technical controls. This should be done as efficiently as possible and with minimum service disruption to subscribers. If action is not taken by Higher Headquarters in the very near future, this Battalion will assume the responsibility and take action as required, using organic resources to consolidate the technical controls. Exception reports will be submitted to document action taken.

(c) Test Equipment Repair.

(a) OBSERVATION. On 30 June 1969 Page Communications Engineers completed its obligation under the FY 69 OES contract to repair ICS test equipment. The 1st Logistics Command was to assume this responsibility, with Kontron Inc., as their contractor or agent. As of 31 July 1969 serious deficiencies have been noted in the ability of Kontron to perform the repair of ICS test equipment.

(b) EVALUATION. A full month after assuming the responsibility for the repair of the ICS test equipment Kontron is unable to adequately
Performs this function, Kontum and the 1st Logistics Command demonstrated inadequate planning in providing maintenance facilities and appropriate material within those facilities for the repairing of test equipment. Though some equipment is being repaired, backlogs are developing in the repair of the more sophisticated INCS test equipment items and general performance is unacceptable.

(c) RECOMMENDATION. It is recommended that this function be a matter for further study as it appears that some of the more critical test equipment repair should remain at the Page INCS, with the minor maintenance and all calibration being the responsibility of 1st Logistics Command.

(9) Inappropriate NCS Assignments.

(a) OBSERVATION. In the past many tactical microwave equipment repairmen (26L20) have been assigned to the 361st Signal Battalion.

(b) EVALUATION. Personnel with MOS 26L20 become a burden to the INCS because of the extensive OJT training required to make these personnel competent in the repair and operation of the fixed station microwave equipment utilized by the INCS.

(c) RECOMMENDATION. Personnel of MOS 26L20 should not be assigned to an INCS Battalion unless they have had training in fixed station microwave equipment prior to their assignment to the INCS. More efficient use of the 26L20s in Vietnam could also be made by insuring that these personnel are not assigned to tactical units but to the INCS.

d. Training. None.
SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969 (RCS CSFOR-65) (WHI 99-00)

- Intelligence: None.
- Logistics: None.
- Organisation: None.
- Other: None.

1. Incl

EMMETT PAIGE JR.
LTC, SigC
Commanding
SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969

HEADQUARTERS, USASTRATCOM Regional Communications Group (Vietnam), APO 96243

TO: Assistant Chief of Staff for Force Development, Department of the Army,
   Washington D.C. 20310
   Commanding General, 1st Sig Bde (USASTRATCOM), ATTN: SCCPV-PO-CR,
   APO 96334

1. Concur with basic correspondence except as indicated below.

2. Reference Section 1, Operation: Significant Activities.

   la. "TUCS" is used throughout the entire report; several months ago, however, the "U" in "TUCS" had been dropped and changed to "ICS".

   1f. The VC7 tandem switch is scheduled for activation on 1 November 1969. This will be the second Tandem in RVN for which the Army has responsibility. (add before RTU).

   1h. Page Communications Engineers personnel placed the ORC-170 into operation.

   1j. Too much reliance should not be placed on the Machine Operations Section (ADPS) at Group. There is a distinct possibility that it would not be authorized on the new Group Headquarters 1STDA. If the program is adapted, the capabilities of the Machine Operations Section (ADPS) will definitely be required.

   Additionally, 1st Signal Brigade Logistics is working on an SOP or DRAFT Regulation concerning an automated program for better property accountability of ICS property. The latest STRATCOM ICS inventory is the most comprehensive document that is available on ICS equipment in Vietnam. Brigade Logistics then plans to incorporate this listing into the SOP or DRAFT Regulation which is to be published in the future.

11. Errors:

   77UZ36 Change 17 May to 1 May
   77U450 Change 50U to CRC
   77UZ33 Change 17 June to 1 July
   77UZ3T Change QH to QFC
SCCPV-RG-MO
SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969
(RCS: CSFOR-65) (WHBN 99-00)

Add the following Group Activation:

77UM65S QTR/DOH 4 May
77UZ7J PHT/QHC 21 June

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

2b(6)(c) - Additionally, there is currently no control authority for FEMO implementations. Old and New FEMOS are numbered differently. Logistics should standardize and publish an index to modification work orders as applicable to ICS.

Action will be taken by Logistics to determine if the current contract with Page Communications Engineers authorizes FEMO's or MWO's without prior approval of USASTRATCOM/USAMC Channels.

2b(8)(b) - Concur that Kentron was not ready on 1 July 1969 to completely take over test equipment repair and that by 31 July there were still shortcomings, however it appears that progress is being made and that further time may be required to make the system work.

2b(8)(c) - Further study is required before any such action is deemed necessary. IBM 55 V2 Vans were late getting on site. Test equipment from Hughes Air Craft Corp that required a type calibration was late arriving in the RVN, and Kentron added one additional repairman to Nha Trang and Qui Nhon repair facilities. If improved service is not forthcoming in the 1st Quarter FY 70 then possibly action to augment 1st Logistics Command may become necessary.

JOHN E. HOOVER
Colonel, SigC
Commanding
TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375

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

2. This headquarters has reviewed the report and concurs in it as indorsed with the following comments and/or exceptions:

   a. Paragraph 1j, page 4. The Directorate of Logistics 1st Signal Brigade has prepared in draft form, a brigade circular covering the property accountability of ICS equipment through the utilization of EAM listings combined with property book accountability on major items.

   b. Paragraph 1k, page 4. MOS's 32D and 32E continue to be critical, not only within the 1st Signal Brigade, but Army wide. The majority of all 32D's arriving in the Brigade are being assigned to Regional Communications Group.

   c. Paragraph 2a(1), page 6. Although shortages do exist there are sufficient personnel available for the 361st Signal Battalion to perform its mission.

   d. Paragraph 2b(1), page 6. Action to procure nine each M.F. test sets is being taken by this headquarters.

   e. Paragraph 2b(2), page 7. An engineering study is being made by MiRVEG engineers. This study will consider construction and installation efforts required to install a 360 channel system from Cam Ranh Bay - Hon Tre - Nha Trang.

   f. Paragraph 2b(7), page 9. This headquarters has already taken action to phase out the Da Nang and Nha Trang old tech controls. The engineering package is in the final stages of completion and unit will be tasked with implementation upon its completion.

   g. Paragraph 2b(8), page 10. Concur. Two months have now passed since the 1st Logistical Command assumed the mission for ICS test equipment repair and "c" level calibration and there has been no appreciable improvement in the support provided. The production role has increased but so has the backlog awaiting repair and equipment deadline for parts. Several actions have been taken during the month of September which should improve test equipment support provided. These actions are as follows:
SUBJECT: Operational Report of 361st Signal Battalion for the Period Ending 31 July 1969, RCS CSFOR-65 (R1)

(1) Regional Communications Group resurveyed the 3 northern AN/TSM-55 locations, Nha Trang, Qui Nhon and Da Nang to determine the feasibility of collocating the AN/TSM-55 at the ICS site in these areas. Sites in the South, Long Binh, Tan Son Nhut and Cam Ranh are collocated and have proven more responsive and productive than northern sites. Initially, collocation in the north was not feasible due to power and space limitations. Conditions have since changed at Da Nang and Nha Trang making it feasible. A letter is being prepared at Regional Communications Group requesting vans be relocated. This will be forwarded to 1st Logistical Command for action.

(2) Page Communications Engineers provided a PLL on all ICS equipment formerly maintained by them, to 1st Logistical Command. This will aid Kentron in ordering PLL repair parts for stockage at each AN/TSM-55 van.

(3) Ten days have been cut from the turn-around-time on repair parts that have to be ordered through Kentron channels in Hawaii, by using a TWX system for ordering rather than the mail system. It formerly took 30-40 days from the time the request was mailed.

FOR THE COMMANDER:

T. E. MULLENNIEX
LTC, AGC
Adjutant General

CF:
Commanding General, United States Army Strategic Communications Command, ATTN: DCSOPS, SCC-OPS-RT, Fort Huachuca, Arizona 85613
Commanding Officer, USA Regional Communications Group, APO 96243
Commanding Officer, 361st Signal Battalion, APO 96992
AVHGC-DST (4 Aug 69) 3d Ind
SUBJECT: Operational Report of the 361st Signal Battalion for the Quarterly Period Ending 31 July 1969, HGS CSPOR-65 (R1)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 11 Oct 1969

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

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1969 from Headquarters, 361st Signal Battalion.

2. Comments follow:

   a. Reference item concerning "Priority Designation of Composite Tone Trunks," section II, page 7, paragraph 2b(3); concur. Where more than one tone trunk parallel each other, only one will be given a high priority. In the event of an outage, high priority circuits will be moved to that trunk. Tone trunks should be preempted only as a last resort within their own priority grouping.

   b. Reference item concerning "Wooden-base Bunkers," section II, page 8, paragraph 2b(5); nonconcur. Engineering studies are currently underway to develop standard bunker designs. These designs will provide for bunkers requiring a minimum expenditure of manpower and funds for construction as well as reduced maintenance consistent with required protection and performance. When approved these designs will be furnished to all units.

   c. Reference item concerning "Test Equipment Repair," section II, page 10, paragraph 2b(8); nonconcur. Further study of this problem does not appear warranted. The 1st Logistical Command's maintenance program was delayed due to the nonreceipt of equipment. These problems are currently being satisfactorily resolved by the 1st Logistical Command.

FOR THE COMMANDER:

[Signature]
E. A. GOODWIN
MAJ. ACC
Assistant Adjutant General

Cy furn:
361st Sig Bn
1st Sig Bde
SCCP-OP (4 Aug.-69) 4th Ind (U)
SUBJECT: Operational Report for the Quarterly Period Ending 31 July 1969 (RCS CSFOR-65) (W/N 99-00)

Headquarters, U. S. Army Strategic Communications Command-Pacific, APO San Francisco 96557 4 NOV 1969

TO: Commander in Chief, United States 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:

[Signature]

FRANK C. MAHIN
COL, GS
Chief of Staff
GPOP-DT (4 Aug 69) 5th Ind
SUBJECT: Operational Report of HQ, 361st Signal Battalion for Period Ending 31 July 1969, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 7 NOV 69

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:

D. A. TUCKER
CPT. AGC
ASST AG

CF:
DA, ACSFOR
CG, USASTRATCOM-PAC
SCC-PO-CERA (4 Aug 69) 6th Ind
SUBJECT: Operational Report of HQ, 361st Sig BN for period ending 31 Jul 69, RCS CSFOR-65 (R2)

Headquarters, US Army Strategic Communications Command, Fort Huachuca, Arizona 85613-8 DEC 1969

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, DC 20310

This headquarters has reviewed and concurs in subject report as indorsed.

FOR THE COMMANDER:

[Signature]

ROBERT A. MALL
Captain, AGC
Asst Adj Gen

CF: (w/o Incls)
HQ USASTRATCOM-PAC
HQ US Army, PAC
1. **PROBLEM:** To improve the accountability for INCS fixed plant-in-place equipment, and to render such accountability meaningful for planning purposes.

2. **ASSUMPTION:**
   a. That such real property buildings (with installed fixtures), power facilities, and air conditioning will be transferred to the installation engineer at fixed sites.
   b. That the communications requirements supported by the INCS will continue to change both quantitatively and geographically on a daily basis.

3. **FACTS:**
   a. The Army assumed accountability for INCS plant-in-place equipment by transfer from Page Communications Engineers on DD Forms 250 over a three year span.
   b. No consistent guidelines have been established as to what level of detailed breakdown will be used on transfer documents (DD Forms 250), or to account for the equipment.
   c. Large rack-mounted items may lose their original identity (as listed on a DD Form 250) when accountable components are moved about the country.
   d. Design flexibility of the INCS encourages rapid movement of equipment between sites.
   e. HQ USACSA, HQ USASTRATCOM, DCA-WASH, DCA-SAM, HQ 1st Signal Brigade (CARG), HQ Regional Communications Group, Page Communications Engineers, and long lines battalions all maintain property records for INCS equipment in various forms to answer specific needs.

4. **DISCUSSION:**
   a. General
      (1) The two operating long lines battalions assumed accountability for INCS property on DD Forms 250 from Page Communications Engineers, which because of a lack of application of a consistent standard resulted in transfer of same items by bay or rack and other items by the components within bays or racks. This situation was quickly
complicated by the movement of components between sites which had not been transferred as components on ED Forms 250. Further, even if sufficient technically trained supply personnel were made available to support the present manual system of accountability, the inordinate delays attendant in communicating, posting and listing property changes, render the system unresponsive to configuration controls.

(2) Even larger movement of equipment occurs when the troop population makes a significant in-country shift (such as in the recent NAR and Overbuild exercises). The dynamic character of the IMCS is illustrated by the fact that from 4 April 1969 to 5 June 1969, DCL-SAM issued an average of 100 CEO's and 110 CLR's each week.

b. Alternatives

(1) Four major categories of parameters lend themselves to examination in order to produce a property accountability system that is both accurate and meaningful.

(a) At what organizational level(s) should accountability be centered (or shared)?

(b) What level of detail of equipment accountability is required in order to serve the most interests?

(c) What is the optimum ratio of automated to manual accounting, when considering personnel resources and physical communication difficulties?

(d) Which organization's existing method(s) of asset control (see para 30 above) are best suited to modification for purposes of property accountability?

(2) Examination of practical alternatives is conducted in subsequent paragraphs.

(3) To further the concept that the IMCS is "system" oriented, the property asset control should logically belong at the center of the Vietnam subsystem (i.e. HQ, Regional Communications Group). However, in order for someone to maintain reasonable physical surveillance over this property, the individual site must also share in asset control through command responsibility (as defined in para 7, LR 735-5). The brigade, battalion, and company only have a direct interest in insuring that the system of accountability is properly
operating, and in obtaining planning data from the group headquarters. The battalion and company are of course, still accountable for non-INCS property.

(4) No organization listed in para 3c above requires more detailed asset accountability than HQ, RCG for use in assignment of equipment to each circuit validated by DBS-SAM. This information is also adequate for planners to use in the areas of system expansion and reduction, replacement of obsolete components, tool and test equipment support, and repair parts support. Tool and test equipment itself can be handled on a manual accounting basis, because of the magnitude of material involved.

(5) An examination of the various manual and automatic methods of asset accountability currently in use reveals that the completely manual methods cannot ever achieve an acceptable accuracy or count, or be sufficiently up-to-date to be useful to planners. As a basis for initial accurate accountability the DD Forms 250 are unsatisfactory, for reasons previously explained. The dynamic, ever-changing character of the INCS precludes meaningful on-site physical inventories, except as used to purify or update a master record kept on a system basis. The geographical spread of site locations, turnover of personnel, and magnitude of property involved contributes significantly to the delays in processing documentation and to lack of accuracy. Certain INCS equipment is also kept on such manual records as Activation Records, Page Multiplex Manual, CLR cards, on-site drawings, and numerous DA supply forms, all of which either support only a portion of the total property accountability or are too unresponsive to be useful.

(6) Automated equipment listings are available from USACSA, Page, and RCG. In an effort to obtain the desired level of asset accountability and to achieve real-time accountability for the majority of equipment, the RCG listings provide a good basis from which to evolve a workable solution to the accounting problem.

c. Proposed Method

(1) The present conditioning equipment listing may be utilized with minor adjustments in format plus an addition of an equipment total by system, battalion, or company. This listing presently indicates total equipment by site, by active circuit, and by
location of spare equipment. Daily update information is card punched from work sheets, and listings are produced once or twice a month, as required.

(2) A listing is also prepared for the equipment in the RF side of the house, but this format requires more significant adjustment in order to account for certain common equipment as power supplies, order wire and alarm facilities, and antenna systems.

(3) The major, significant advantage of this accounting method is that approximately 85% of the IWCS equipment can be accounted for on a real time basis (i.e. equipment assigned to an active circuit in a constantly monitored operating system, and no one can remove the equipment assigned to an active circuit without notice). The spare equipment will still require accountability through periodic inventory. To provide for this inventory and the proper degree of on-site command responsibility, the site commander can sign a suitable annotated copy of the monthly listing and return it to systems control at RCG.

(4) To control assets in transit between site, the same work sheets can be utilized by both losing and gaining sites, and with RCG monitoring the losses and gains the "system" should remain logistically balanced.

(5) Lost, damaged, or destroyed property will be accounted for, as usual, under provisions of AR 735-10.

5. RECOMMENDATIONS:

a. That 1st Signal Brigade adopt the concept of real-time accountability for IWCS plant-in-place equipment.

b. That HQ, Regional Communications Group be staffed and tasked to prepare a detailed plan of real-time accountability as outlined in this study.

c. That HQ, 1st Signal Brigade secure DA approval for substitution of proposed real-time method of IWCS plant-in-place accountability to replace the manual system required by AR 735-35.
Operational Report - Lessons Learned, HQ, 361st Signal Battalion

Experiences of unit engaged in counterinsurgency operations, 1 May 69 to 31 July 69.

CO, 361st Signal Battalion

4 August 1969