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**THIS PAGE IS UNCLASSIFIED**
SUBJECT: Operational Report - Lessons Learned, Headquarters, 1st Signal Brigade, Period Ending 31 January 1970 (U)

1. Subject report is forwarded for review and evaluation in accordance with paragraph 4b, AR 525-15. Information of actions initiated as a result of subject report should be forwarded to ACSFOR OT UT within 90 days of receipt of covering letter.

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. WICKLAND
Major General, USA
The Adjutant General

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SUBJECT: Operational Report of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period Ending 31 January 1970, RCS GSFOR-65 (R2) (U)

1.(C) Section 1, Operations: Significant Activities

a. During the period of this report the 1st Signal Brigade was operational in performing its mission of providing communications-electronics support for free world forces located throughout Vietnam and Thailand. The Brigade (less 29th Signal Group) continued to perform its mission under the operational control of CG, United States Army Vietnam while remaining under the command of CG, United States Army Strategic Communications Command-Pacific. The 29th Signal Group remained under the operational control of United States Army Support-Thailand and the command of 1st Signal Brigade. The 1st Signal Brigade was operational during the entire 92 day reporting period.

b. The 1st Signal Brigade Headquarters was reorganized on 1 November 1969. The new organization of the 1st Signal Brigade Headquarters is attached as enclosure 1.

c. The present organization of the 1st Signal Brigade is attached as enclosures 2 through 8.

d. Significant organizational activities that occurred within each staff section are detailed below:

(4) Assistant Chief of Staff, Operations.

(a) During the first week in November a staff study was completed which provided for greatly increased efficiency and responsiveness of the record communications support provided by the 1st Signal Brigade. The study was prompted after a previous proposal was disapproved because of a change in the funding policy at Department of Defense. The study contained a new proposal for improvements to the USARV AUTODIN/Teletype Network at a substantial cost savings. The plan was presented to the Commanding General on 9 November 1969 at a decision briefing and approved for forwarding to USARV, MACV, and forwarded to USASTRATCOM-PAC. On 11 December 1969 the plan was approved by USARPAC and forwarded to USASTRATCOM-PAC for implementation.
SUBJECT: Operational Report of Headquarters, 1st Signal Brigade (USASOUTHCOM) for Period Ending 31 January 1970, RCS CSFOR-65 (R2) (U)

(b) On 24 November 1969 a fire was discovered at the Can Tho Airfield Frame operated by the 2d Signal Group. The fire caused severe damage and resulted in a serious disruption of communications. All cables terminating at the frame were burned. The burnt cables affected circuits to the entire Communications Center, the Special Data Quality Switch, a portion of the Dial Telephone Exchange, and approximately 39 DCS and 48 CACS circuits, and 57 local subscribers. Although the fire and its resultant damage affected a large number of circuits and a number of different types of communications service, the impact on the individual subscribers was minimized by prompt and effective restoral action.

(c) On 21 January 1970 the Song Be MACV Compound came under intensive enemy attack and suffered serious damages. Damage was done to one AN/GRC-106 transmitter, one AN/HSQ-19, and several communications cables. The transmitter of the AN/GRC-106, which was hit by shrapnel, was repaired and brought back to traffic while the attack was still in progress. The roof of the AN/ HSQ-19 was blown off, but the equipment was kept in operation throughout the attack. The personnel of the 36th Signal Battalion, 2d Signal Group operating the site were able to maintain adequate subscriber service throughout the attack. The site personnel, with later assistance from reaction force personnel, expedited continuous restoral of required communications by efficient and effective repair of damaged equipment and installation of field wire lines to subscribers.

(2) Communications Systems Engineering and Management Agency.

(a) AUTOVON Cutover II was completed on 1 November 1969 providing a total of thirty-seven AUTOVON access circuits to Southeast Asia - Mainland. Thirty-one of these circuits are from the Dau Switch in the Philippines and six are from the Wahiawa CONUS Gateway Switch. The latter six are further broken out as three terminating on the Phu Lam JOSS and three terminating on the Bangkok JOSS. This figure of thirty-seven represented the number of circuits for which the 1st Signal Brigade had test and conditioning responsibility. AUTOVON Cutover III is scheduled to take place on 1 March 1970. Cut III will activate a subscriber circuit for the Commanding General, 1st Signal Brigade. CCSFD for the circuit will be KP-88. The circuit will be routed from LBN to FIA., and from FLM to the Dau Switch in the Philippines. The four-wire subscriber terminal equipment has been installed and tested. The circuit has also been tested and conditioned.

(b) Three AN/TSC-62 Transportable Microwave Terminals are operating in RVN. Four others are being held in reserve as contingency assets.

(c) There are currently six AN/GRC-170 terminals installed and operating in RVN and Thailand on the Vung Tau - Pleiku, Phu Lam - Kha Trang (Cable Head), and Pleiku - Warin, ICS Links. An additional eight AN/GRC-170 terminals were scheduled for installation on four other ICS Links. However, installation of these additional units in the Republic of Vietnam has been cancelled by HQ STRATCCOM in accordance with recommendations of STRATCOM-PAC, which were concurred in by this Agency.
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(d) Work was completed on Project ALAS (Automated Loading Analysis System) which is designed to control systems loading in ICS Communications Links.

(e) Project CMARS (Computerized Multiplex Assets Rearrangelement System) has been refined and documentation of this program has been forwarded to USASTRATCOM-FAC.

(f) Work was completed on Project IAP (Frequency Analysis Program) which checks and attempts to control interferences at ICS sites.

(g) The installation of a Dual Mode V AUTODIN Terminal at the Cu Chi ACC was completed in December 1969. This facility became operational in January 1970.

(h) During the 2d Quarter of FY 70, the 18 Line Army Relay at Cu Chi was activated.

(3) Southeast Asia Telephone Management Agency.

(a) During the 2d Quarter of FY 70, the Pleiku, Warin, and Vung Chua Mountain Tandem Switches were cutover. Personnel from SEA TELMA were actively engaged in supervision of both of these cutovers. The cutover of the Pleiku Tandem marks the completion of the Southeast Asia Automatic Telephone System. Personnel from SEA TELMA who have been assigned to the Joint Cutover Integrated Working Group (JCIMG) will be returning to assume positions in SEA TELMA.

(b) SEA TELMA continues to support DCA-SAM in the collection of secondary trunking traffic data and has sent out teams to conduct specific traffic studies at most of the dial exchanges in Vietnam. These traffic studies provide DCA-SAM with accurate and reliable information on secondary trunking requirements, and also enables TELMA to check the validity of traffic data submitted by the operating units. SEA TELMA will continue to perform these traffic studies until Traffic Recording Equipment becomes operational.

(c) During this quarter, the SEA TELMA Technical Evaluation and Assistance Teams have visited all dial telephone exchanges in Vietnam. It is the purpose of the technical evaluation and assistance teams to identify problem areas at the DTE’s and assist in solving these problems. This program has been very successful and has given SEA TELMA a first hand knowledge of problems encountered by the operating units, and provides the basis for a coordinated effort to resolve problem areas.

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During the second quarter, a team consisting of one Warrant Officer and five DA Civilians were attached to SEA TEMIA for the purpose of rehabilitating AN/TTC-28, serial number 003. The rehabilitation was completed and the AN/TTC-28 was shipped to Camp Eagle for installation.

SEA TEMIA has recently established a program of assistance to the dial exchanges in the final wiring of Traffic Recording Equipment. They are also conducting instruction in the operation of Traffic Recording Equipment. When the DTE's have Traffic Recording Equipment wired and are using this equipment, improved accuracy of traffic data will result. This program of assistance will continue into next quarter.

During this quarter, it was decided that SEA TEMIA will assume those functions of the Joint Cutover Integrated Working Group that are of a continuing nature, so that JCIWG can be phased out. The functions SEA TEMIA will assume are:

1. Prepare detailed engineering and grading schemes, drawings, and instructions for all Army TSC's and DTE's.
2. Provide technical assistance and evaluation for Army Tandems.
3. Manage use of spare "in place" tandem assets.
4. Assume COR responsibilities for remaining installation and improvement actions required of the contractor in both Army and Air Force tandems.
5. Maintain and act as repository for JCIWG files and records.

(a) OPLAN 7-70 (USARV Alternate AOC)(U) was published on 19 December 1969. This plan was written to provide Communication-Electronics support to USARV in the establishment of two alternate Army Operations Centers (AOC) and an alternate site for HQ, USARV in event of disruption of facilities at primary location.

(b) OPLAN 65-69 (Security of Selected Personnel)(U) was updated on 29 October 1969, to include other categories of individuals who are identified as selected personnel. This plan provides for the identification, reporting and evacuation on order of those personnel identified as selected personnel.

(c) OPLAN 79-70 (Continuity of Logistical Operations)(U) was revised and republished on 12 December 1969. This plan calls for the restoration of communications facilities in support of USARV logistical operations.
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(d) OPLAN 81-70 (Long Binh DCO Restoral Procedures) (U) was published on 2 October 1969, and updated on 22 November 1969. This plan provides for partial restoration of dial telephone and trunking service on Long Binh Post, in event of failure or damage to the DDC. Partial restoral is accomplished by using an AN/TTC-28, reserved and previded by the 160th Signal Group, for this particular contingency.

(e) OPLAN 84-70 (Signal Contingency Teams) (U) was published on 21 November 1969, and provides for three signal contingency teams, one each from the 2d, 12th and 21st Signal Groups, to be capable of deploying within 24 hours and of providing 24 radio relay voice channels and other equipment to establish a forward corps area size signal center. Teams will be deployed on order of CG, USARV to establish or restore communication facilities within Vietnam.

(f) OPLAN 90-70 (MACV Command Post Emergency Relocation for Combat Operations) (U) was published on 15 December 1969. This plan is an update to previous OPLAN 90-69 and provides communication support to MACV elements upon deployment to an alternate location in event of disruption of facilities at present location.

(g) The Phase II withdrawal of units was announced and executed and included the following 1st Signal Brigade units:

- KHC, 972d Signal Bn
- 107th Signal Co/972d Signal Bn
- 127th Signal Co/52d Signal Bn
- Phu Lam Signal Bn
- Nha Trang Signal Bn
- Da Nang
- Co A/37th Signal Bn
- 362d Signal Co/73d Signal Bn

* Partial drawdown of unit

(a) Planning rationale for selection:

1. The 972d Signal Battalion was inactivated because it was considered unnecessary as a contingency battalion. Its companies were either inactivated or reassigned to other battalions.
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2 The 107th Signal Company/972d Signal Battalion was an activated reserve unit with primary mission as a contingency force. It was decided this company was not necessary since contingency teams could be designated within other 1st Signal Brigade units.

3 The 324th Signal Company/52d Signal Battalion was inactivated due to a consolidation of missions within the IGVF after the 9th Infantry Division redeployment. The 52d Signal Battalion assumed the 324th Signal Company's mission.

4 The five units were drawn down as a result of reduced missions within their area(s) of responsibility. The drawdowns were in line with the proposed reorganization of the Brigade which the Force Development Division had developed; therefore, the reductions did not disrupt the submission of new documentation for the Brigade. In planning for possible future phases of withdrawal, the Groups were tasked to conduct mission/naming studies based upon the assumption of major unit withdrawal, base camp closure or partial drawdown. These studies were received and are updated as planning information becomes available. Upon the announcement of Phase III withdrawals in December, the studies provided the necessary information, and selection of spaces/units was simplified. In the future, the Brigade should be in a position to rapidly and accurately designate spaces/units for redeployment or inactivation when a phase is announced.

(i) The following units for Phase III were selected:

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<td>256th Signal Co (previously Co C/41/49th Signal Bn)</td>
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<tr>
<td>267th Signal Co/39th Signal Bn</td>
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<td></td>
</tr>
<tr>
<td>587th Signal Co/86th Signal Bn</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>261st Signal Co/Ist Signal Bn</td>
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(ii) Rationale:

1 The 53d Signal Detachment supports the 1st Infantry Division, which is redeploying, and the detachment should either redeploy with them or be inactivated.

2 The 256th Signal Company was relieved of its mission at Long Giao (B.N. Horse) and Xuan Lo when Long Giao was closed. The company was then
free to assume the secondary mission which the 107th Signal Company had prior to inactivation, namely operating the fixed facilities at Plantation and Redcatcher. Under the proposed documentation, 256th Signal Company was to retain the original mission at Long Tieng and Xuan Loc while a special TDA was to be formed to operate the fixed facilities at Plantation and Redcatcher. Since the new documentation has been approved, the 256th Signal Company does not have an assigned mission and is available for inactivation or redeployment.

3 All multi-pair cable projects now in progress by the 267th Signal Company within the III and IV CTZ areas of responsibility will be completed on or about 15 February 1970. At present, there are no new multi-pair cable installation projects planned by the 26th Signal Group within the III and IV CTZ through 31 December 1970. There are approximately 87,100 feet of multi-pair cable scheduled for rehabilitation within III and IV CTZ areas through 31 December 1970. This rehabilitation can be absorbed by the 40th Signal Battalion, 160th Signal Group. Signal support requirements, in so far as the installation of multi-pair cable is concerned in III and IV CTZ, will be substantially reduced as supported units redeploy. Closed circuit transfer of personnel between the 40th Signal Battalion and 26th Signal Company can be effected so that "time in country qualification" requirements of personnel can be met.

4 The 41 spaces (drawdown) of the 587th Signal Company will result from the mission to support the Dau Tieng base camp being eliminated.

5 Due to recent reductions of support required to units and advisors in the II CTZ, the 261st Signal Company has closed some small sites; the reduced mission requirements allow a drawdown of 25 spaces.

(k) On 13 December 1969, 1st Signal Brigade personnel assisting the DA staff in Brigade reorganization documents returned to Vietnam after a job well done. In conjunction with representatives from the DA staff and USASTRATCOM, the Brigade team had met with tremendous success in getting all but three of the 109 documents submitted in September 1969 approved by DA. For the first time since 1st Signal Brigade activation resource documents equaled Brigade requirements. On 10 January 1970 the Brigade was officially notified that HQ USASTRATCOM has been given reorganization general order publication authority with an effective date of 1 May 1970. This meant a five-month delay in 1st Signal Brigade reorganization implementation. The key date was due to the inability of DA DOSTER to support new personnel requirements as outlined in the new authorization documents. Realizing that nothing would be gained by a delay in effecting reorganization, 1st Signal Brigade immediately submitted a reclama to the 1 May effective date through USASTRATCOM channels to DA providing the Brigade rationale for desiring an earlier effective date. The reclama expressed 1st Signal Brigade's appreciation of DOSTER personnel fill problems and emphasized that 1st Signal
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Brigade could and would continue to perform assigned missions with available personnel resources until such time as DA could meet all authorized requirements. The Brigade requested general order authority to implement reorganization on 1 March 1970. 1st Signal Brigade received full support in their request for the 1 March date in USASTRATCOM channels and at DA staff level. On 16 January 1970 the Brigade received official notification from DA stating that reorganization approval authority had been awarded to read 1 March 1970 in lieu of 1 May 1970. Signal Group Force Development representatives were issued annotated copies of the DA approved HIEW/MTDAs on 5 January 1970 and instructed to take specific actions to prepare for smooth transition into the reorganization. These documents had been hand carried from DA by the 1st Signal Brigade team. These documents represented a total of 78 separate HIEW/MTDAs pertaining to 65 1st Signal Brigade units.

(1) 3 October 1969: A six month AMARS/TRU maintenance training contract with Radiation, Inc. was approved. Under terms of the contract, Radiation Inc. is to provide the 1st Signal Brigade with six months of on-site maintenance training.

(a) 18 October 1969: The TSEC/KL-7 Maintenance course at the US Army Training Facility-1st Signal Brigade was discontinued because of negligible training requirement.

(n) 17 November 1969: The ARN Signal School started its first 26V and 32E course. The first class had an input of 37 students and is expected to graduate on 15 February 1970.

(o) 21 November 1969: Class #4 of the ARN Tech Control course graduated 19 students. Class #5 began on 7 December 1969, and is expected to graduate on or about 23 January 1970. Class #5 is the first class in which RNRAF personnel will assume a major role in instructional duties.

(p) 26 November 1969: The first thirty day AMARS/TRU maintenance training period ended. Four personnel possessing HDS 3115 (AMARS/TRU maintenance men) were qualified in the equivalent of depot category maintenance of the tape recall unit as a result of this training. They were assigned to three different AMARS sites after the completion of this training and are an important factor in upgrading the overall SEA AMARS operation.

(q) 29 December 1969: The CONSEA Data Collection Base course began at 0230 27th with an enrollment of approximately 65 enlisted men. The personnel who participate in this training will assist in collecting data to determine the communications requirement of RNRAF in SEA.
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(r) 31 December 1969: A total of 1,299 students graduated from the US Army Training Facility, 1st Signal Brigade at Long Binh during 2d Quarter, FY 70.

(5) Assistant Chief of Staff, Intelligence and Security.

(a) 103 enemy actions were directed against or affected Brigade installations, equipment, or personnel. Stand-off indirect fire attacks continued to be the predominant type of attack.

(b) 744 security clearances and validations were processed.

(c) 95 serious incidents were reported.

(d) 3 CI inspections were conducted by members of the I&I Section.

(e) 3 annual command crypto inspections were conducted by members of the I&I Section.

(f) Reports of 5 investigations were initiated due to possible compromises and administrative violations.

(g) 8 physical security inspections were conducted.

(h) The following regulations were implemented:

1 1st Signal Brigade Memorandum 380-2: MILITARY SECURITY - Access to Brigade Briefing Room.

2 1st Signal Brigade Regulation 525-1: COMBAT OPERATIONS - Defense.

(6) Assistant Chief of Staff, Controller.

(a) 1 November 1969 - 30 January 1970: FY 70 Approved Operating Budget. During this period there were a number of adjustments made to increase the Brigade's budget. These are shown below:

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(b) 1 December 1969: Cost Reduction Program. A cost reduction program goal of $90,375 was assigned by USASTRATCOM-PA. This goal was in addition to the goal of $71,000 assigned to 1st Signal Brigade by USARV. On 17 January 1970, the USARV goal was withdrawn. A Cost Reduction Program Individual Savings Action entitled "Eliminating Need for COMSEC Log Facility" and previously submitted for approval of $120,000 cost saving was invalidated by the US Army Audit Agency because it could not be proven that the $120,000 was in fact approved for the project.

(c) 31 January 1970: CCFVs 335-1 Recurring Reports Register. This circular was revised and updated to provide a listing of pertinent data for the current reporting requirements of subordinate units to Brigade, and Brigade to higher headquarters.

(d) 1 November 1969: Data Processing Division in coordination with PA redesign the 1st Signal Brigade Personnel Management Information System (PMIS). This system which helps to improve accurate and timely information was implemented on 1 November 1969.

(e) 1 January 1970: The 1st Signal Brigade Interim Management Information System DAR has been submitted and approved by STRATCOM-PA and STRATCOM. Currently, the DAR is awaiting DA approval. Once the DAR is approved, action will be taken to obtain the tape drives necessary to supplement current computer configuration.

(f) 23 January 1970: Conversion to the Army Authorized Documents System (TAADS) required by DA is due to be implemented by 1 March 1970. This system will provide current TOE/TDA reports for personnel and equipment management purposes.

7) Projects:

(a) Construction of the Cam Ranh Bay AMSF is currently 65% complete and estimated COD is 1 April 1970.

(b) In January 1970, four (4) project designs were complete and construction of three (3) STRATCOM Power Upgrades progressed. The Phu Bai, Da Nang, Pleiku, and Long Binh STRATCOM Power Upgrade Designs were completed and contracted. As of 31 January 1970 the construction status of the Power Upgrades were: Ba Queo - 60%, Phu Lam - 90%, and Tan Son Nhut - 70%.

(c) Taylor & Gannon Consultant Engineers have been contracted to conduct an electric power survey of Korea, Thailand and Taiwan. They will arrive in Thailand on 24 February 1970.
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(8) Assistant Chief of Staff, Logistics and Services.

(a) During the 2d Quarter, FY 70, this command received some relief on the critically needed generator equipment. The receipt of this equipment has greatly improved the postures of the electrical power support required for operation of electronic equipment.

(b) This headquarters is continuing its efforts in assistance and instruction visits to subordinate units. During these visits instruction and assistance is rendered for procedures and guidance in property accountability and unit prescribed load lists (PLL).

(c) During this quarter, the 2d generation of ACCOM high capacity tactical radio/cable equipment, which arrived in-country during the previous quarter, in part was deployed for operation. It is anticipated that all assets will be deployed during the forthcoming quarter.

(d) During this quarter, the need for school trained repair parts clerks became more apparent with the influx in types of equipment being employed within the command. As a result, the USAF was tasked to establish a course of instruction in Prescribed Load Lists procedures. This action will improve the maintenance capabilities of units in that records on repair parts are being properly managed throughout the command. This establishment of the PLL course will enhance the integrity of the Brigade.

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

a. Personnel.

(1) Continued mal-assignment of personnel contrary to Chapter 3-5, AR 600-200.

(a) Observation: This headquarters in monitoring MOS inventory reports and other reporting media from subordinate commanders detect mal-assignment of personnel. Some highly trained individuals are assigned minimal duties such as permanent gate guards, security platoons, or related duties.

(b) Evaluation: The disregard for utilization procedures as outlined in Chapter 3-5, AR 600-200 is generally caused by neglect of personnel managers and commanders in establishing a control system which would quickly identify where an individual is needed by virtue of previous training or schooling.

(c) Recommendation: That commanders and personnel managers closely monitor assignments of personnel to include those possessing ASIs and SQIs to insure maximum utilization of personnel in an MOS for which they are trained.
A system for requisitioning should show by month the authorized, assigned, projected losses based on DEROS, gains projected through requisition and total number of personnel which should be on hand for each MOS authorized in the organization. At the end of each month, fill action on each MOS for the preceding month should be entered in parenthesis beside the total requisition. Fill action for the past three months preceding the current requisition month would justify the necessity for an emergency requisition in cases of a shortfall. Utilizing the above procedures would provide immediate response for proper assignment actions and present a picture of projected strength based on the requisition cycle.

(2) Requirements for Cable Splicers.

(a) Observation: The requirement for school trained cable splicers will continue to increase.

(b) Evaluation: Although the number of new outside plant cable construction projects has decreased, the number of cable rehabilitation projects has greatly increased. These projects require an increased effort of cable splicers. The amount of money saved in rehabilitating cable as opposed to installing new cable warrant and justify the rehabilitation effort.

(c) Recommendation: That maximum attention be given to insure that all cable splicers authorized are requisitioned and that maximum utilization is made of those assigned. This headquarters will closely monitor assignment of cable splicers to those units that have the greatest need.

b. Intelligence: None.

c. Operations: Splicing Multipair Polyethylene Insulated (PIC) Communications Cable.

(1) Observation: There is generally a lack of quality assurance in cable splicing operations. This is evidenced by numerous instances of improperly made splices and splice cases which are improperly sealed, allowing water to permeate the cable.

(2) Evaluation: The number of communications cable that have become wet or which have become degraded because of low insulation resistance has been excessive. The major reason for splices becoming wet is that improper techniques have been used in sealing the splice cases. In many cases, due to a lack of certain items of material, splice cases were closed without being watertight. With added supervision of the project and inspection of work at
critical phases, these problems should be detected and corrective action taken prior to placing the cable into the ground. Additionally, monitoring of the project by those personnel that will eventually have to maintain the cable will insure that they are familiar with the installation and discover unacceptable cable construction practices before it is too late.

(3) Recommendation: That all units place additional emphasis on supervision of cable construction in addition to closely inspecting critical phases of splicing prior to encasing cable or burying it in the ground. A 1st Signal Brigade Regulation governing cable construction has been re-written to place additional emphasis on testing of cable in addition to requiring that units insure project supervisors inspect cable projects during critical phases of installation.

d. Organization: Need to consolidate communications-electronics missions under a single manager at a major headquarters.

(1) Observation: MACV headquarters Compound was serviced with its communications-electronics needs by various units of the 69th, 369th, and Phu Lam Signal Battalions. This caused coordination problems and restoration problems during major catastrophe communications failures.

(2) Evaluation: Each element responsible for communications-electronics missions at the MACV Compound was responsive and professional in its own area. In event of a major failure such as a MACV Compound power failure, confusion as to restoration priorities of areas, systems/circuits became apparent. Each element was responsible to its parent unit, with overall coordination being slow and non-responsive.

(3) Recommendation: MACV Headquarters Compound now has overall coordination vested in one individual, titled MACV Headquarters Signal Officer (HSO). In this case, the CO, 69th Signal Battalion has been designated HSO and is responsive to the MACV J6 for all communications-electronics operating elements at the MACV Headquarters. Operational control of all operating elements have been assumed by the HSO. All major headquarters should have all C-E operating elements responsive to one individual or location.

e. Training: Training of Personnel in MOS 31M.

(1) Observation: Personnel possessing MOS 31M20 (Radio Relay and Carrier Attendant) lack fundamental communications knowledge when initially assigned to the field.
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(2) Evaluation: Many 31M personnel are oriented only in the operation of AN/TPC-24 radio systems and then at apprentice level. Trouble-shooting and circuit restoral techniques are widespread weaknesses. The percentage of personnel who have received sufficient training on the AN/GRC-50 is very low. This headquarters has found it necessary to expand the FCM Medium-Capacity operator course at the USATF, Long Binh. All newly assigned 3IM personnel will attend this refresher training soon after arriving in-country.

(3) Recommendation: That USASSSS, Ft. Gordon, Georgia, add an extra two weeks of training to its present 3IM course. The extra two weeks should be spent in field training. The student should participate in twenty-four (24) hour a day operation of tactical HF radio systems and should repeatedly install, lineup, operate, and maintain both AN/GRC-50 and AN/TPC-24 radio systems.

f. Logistics:

(1) Deployment of Generators.

(a) Observation: The receipt of generator equipment within the theatre was in most cases shipped to depots other than that supporting the unit with the requirement.

(b) Evaluation: The release of generators from depots distant from the unit with requirements imposed transportation problems on the units which were to receive the item. In time, this would have been an action accomplished by the depot transportation facilities, however, the shortage of generator equipment required by the unit for satisfactory operation, demanded that every effort be coordinated to provide the transportation in the shortest possible time. Personnel of distant units coordinated direct with the releasing depot where assets were available and assisted depot in arrangement of upgraded transportation priorities.

(c) Recommendation: That in-coming assets of equipment be positioned at each depot on a pro-rated ratio, based on density of authorizations and requirements for the area supported. That procedures be initiated to provide units guidance in relation to transporting of equipment when released from depots other than the normal supporting depot.

(2) Deployment of HI-CAPS AACOMS AN/TRC-111 and AN/TCC-62.

(a) Observation: Deployment of AN/TRC-111 and AN/TCC-62 HI-CAPS AACOMS equipment with associated generators were shipped from CONUS to RVN and
placed in the Cam Ranh Bay Depot. Deployment of these assets were divided to units supported by Qui Nhon Depot, Cam Ranh Bay Depot, and Long Binh Depot with supporting repair parts packages being supplied for each depot.

(b) Evaluation: Assembly of the repair parts packages for the three separate depots was accomplished in CONUS and shipped to this theatre. The package included all categories of maintenance repair parts (Organizational, Direct Support, General Support and Depot Stockage). The packages were shipped to individual depots and in some instances were opened, inventoried, and placed in stock. Project codes were utilized to identify the separate depot packages, however, due to common supply type items being contained therein, when stocked were utilized to fill outstanding back orders to units.

(c) Recommendation: That supply list authorization card (SLAC) decks be prepared from approved technical manuals to the maximum extent possible. That all future shipments of push packages be separated into the category of application and density of equipment, i.e., organizational, direct support, general support, and depot. That SLAC decks be developed in more detail to provide appropriate technical manual data for which the repair part is applicable.

(3) Procurement of Repair Parts for AUTOSEVCOM Equipment.

(a) Observation: Repair parts for AUTOSEVCOM peculiar equipment are not presently available.

(b) Evaluation: In many instances during the initial installation period and at the present time failure of components in equipment not located on printed circuit cards (i.e., mounted components) have resulted in extended outages. In order to give subscribers service it has been necessary to remove components from committed but un-deployed equipment, thus delaying service to new subscribers.

(c) Recommendation: That spare parts kits be supplied to support equipment presently in use. This request has been submitted to USACSA and STRATCOM.

(4) Use of AN/TRC-29 Parabolic Antennas to improve AN/GRC-50 systems.

(a) Observation: Units employed in Vietnam are located in areas that will best meet the tactical situation from both combat and logistical aspects however, AN/GRC-50 systems between installations in many cases do not meet preferred standards because of poor profiles and distances beyond the normal planning range of the radio.
SUBJECT: Operational Report of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period Ending 31 January 1970, RCS CSFOR-65 (R2) (U)

(b) Evaluation: Under normal circumstances radio relay sites could be established to eliminate extended line-of-sight (LOS) systems. However, within Vietnam this is not feasible in many cases due to insecure areas between installations. To establish a radio relay site would require at least a company size unit to secure it, plus the logistical problem encountered. This approach is not practical from either an economical or manpower point of view.

(c) Recommendation: In order to overcome the above situation, AN/TRC-29 parabolic antennas have been employed with the AN/GRC-50 radios to provide needed gain for reliable system. The AN/TRC-29 provides approximately 30 db gain at the center frequency of 2000 MHz. Its efficiency is lowered considerably when operating it below the lower limits of 1750 MHz. The GRC-50 Antenna is bread banded to cover the large range of frequencies and at center frequency it provides approximately 18 db gain. The beam width of the signal is also increased when using the TRC-29 antenna on lower frequencies. To determine exactly what benefits the TRC-29 antenna provide over the GRC-50 it is recommended that additional tests be made i.e., VSWR over the frequency range, field strength measurements, beam width, etc.

(5) Requisition and Issue of MATSYS.

(a) Observation: The time frame for issuing MATSYS for teletype/AUTODIN circuits is not responsive to operational requirements.

(b) Evaluation: Procedures for the requisitioning and issuing of MATSYS for teletype or AUTODIN circuits calls for the MATSYS to be requisitioned after a TSO has been issued by DCA SLM. Operational requirements, on occasion, have dictated that circuits be called up on very short notice, not allowing sufficient time to issue the TSO, order and receive MATSYS in the required time frame.

(c) Recommendation: That MATSYS be requisitioned based on operational requirements and not on TSO's and that the issue to MATSYS be decentralized to as low a level as possible.

g. Communications: None.
h. Materials:

(1) Deprocessing of AN/WQ-14 Generators.

(a) Observation: The AN/WQ-14 is a precise power generator consisting of a hydraulic actuator and an electric governor to control the engine speed and to maintain the steady frequency output required by the microwave system.
CONFIDENTIAL

SCCPV-OP-AD
15 February 1970

SUBJECT: Operational Report of Headquarters, 1st Signal Brigade (USA STRATCOM) for Period Ending 31 January 1970, RCS CSFOR-65 (R2) (U)

(b) Evaluation: The 1st Signal Brigade received the AN/MJC-14 generators in early April and they were immediately put into service. The hydraulic system on the generators proved to be unreliable (defective filter screens allowed foreign materials to enter the actuator) and would not supply the precise and adequate frequency required for the microwave system. Equipment Improvement Recommendation (EIR) and letters were submitted by 1st Signal Brigade and NECOM personnel on the defective hydraulic system. It was found that the foreign materials which entered the actuator through the defective screens were present due to incomplete cleaning of the hydraulic system at the time of manufacture or assembly.

(c) Recommendation: In order to prevent hydraulic pump, pump adapter and actuator failure, expedited action must be taken by Direct Support Level of maintenance or higher to purge the hydraulic system prior to use.

(2) AN/GRC-270.

(a) Observation: Frequency synthesizers, Radio Engineering Laboratory (REL) Model #1114A, were observed to exhibit marginal performance under varying temperatures.

(b) Evaluation: The frequency synthesizers installed in the first four AN/GRC-270 terminals were observed to drift from their set frequencies. REL was asked to evaluate these units and determine causes and solutions to the problem. REL found that there were indeed some modifications required before the frequency synthesizers would operate properly.

(e) Recommendation: The required action to modify the frequency synthesizers has been taken in Mod P009 to REL's contract DAAB07-68-C-0224. Recommend that REL send modified units to the field as replacements and the defective synthesizers be returned to REL for retrofit. The frequency synthesizers installed in the eight terminals scheduled to remain in CONUS should also contain the required modification.

Jack A. Albright
Brigadier General, USA
Deputy Commanding General

CONFIDENTIAL
AVHGC-DST (27 Feb 70) 1st Ind

SUBJECT: Operational Report of Headquarters, 1st Signal Brigade (USASTRATCOM) for Period ending 31 January 1970, RCS CSFOR-65 (R2) (U)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 02 MAR 1970

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

TO: Commander in Chief, United States Army, Pacific, ATTN: GFCP-UT, APO 96558

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

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 January 1970 from Headquarters, 1st Signal Brigade (USASTRATCOM).

2. Comments follow:

a. Reference item concerning Training of Personnel in MOS 31M, page 13, paragraph 2e(1); concur. Recommend that this problem be addressed to the CONUS school system for a possible POI modification at USASUC. Presently, USASCN has two Electronic Equipment Representatives (EER's) in country. A training program is also being developed for 31M operators. The EER's will be available on a system basis to provide instruction and training to the operators at both ends of the system. They will also provide emergency technical assistance.

b. Reference item concerning Deployment of Generators, page 15, paragraph 2f(1); nonconcur. Inbound generators are prepositioned at depots based on the best available density information at the time of CONUS shipment. Large generators, 30kW and greater, are allocated monthly by a USARV Line of Communication committee composed of participants representing the greatest command densities. The 1st Sig Bde has standing committee membership. Because of a continuing generator shortage, allocations are based on criticality of need. Thus, by necessity, some in country transshipment is required.

c. Reference item concerning Requisition and Issue of MATSYS, page 16, paragraph 2f(5); concur. Information provided by CONSEC Logistics Support Center, Vietnam indicates that a Telecommunications Order is not required in order to request MATSYS. MATSYS are now available to be issued based upon operational requirements.
d. Reference item concerning Deprocessing of AN/NQ-14 Generators, page 16 paragraph 2h(1): Concur with recommendation contained in paragraph 2h(1)(c). Although the manufacturer's quality assurance personnel have considerably tightened their inspection procedures since the production of the first 60 generators, it is a commendable maintenance practice for DSU's to check the filter upon deprocessing, and drain the hydraulic system if foreign materials are noted within the actuator. HQCOM-NICP recommends that during normal servicing of the generator this check also be accomplished. Hydrosonic cleaning should be performed only at time of manufacture or depot rebuild.

FOR THE COMMANDER

[Signature]

L. D. MURRAY
CPT, AGC
Assistant Adjutant General

Cy furn:
1st Signal Brigade (USASTRATCOM)
SUBJECT: Operational Report of Headquarters, 1st Signal Brigade
(USASTRATCOM) for Period Ending 31 January 1970, RCS
CSFOR-65 (R2) (U)

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 subject report and offers the following comments:

   a. Reference item concerning "AN/GRC-70", paragraph 2h(2), page 17: The recommendation to modify the eight AN/GRC-70 terminals in CONUS has been referred to Headquarters, USASTRATCOM by separate correspondence for necessary action.

   b. Concur with the remainder of the report as indorsed.

FOR THE COMMANDER:

FRANK C. MAHER
COL, GS
Chief of Staff

CF:
Commanding General, U.S. Army, Vietnam, APC 96375 (w/o incl)
Commanding General, 1st Signal Brigade (USASTRATCOM), APO 96384 (w/o incl)
SUBJECT: Operational Report of HQ, 1st Signal Brigade (USASTRATCOM) for Period Ending 31 January 1970, RCS CSFOR-65 (R2) (U)

HQ, US Army, Pacific, APO San Francisco 96568 28 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:

D.D. Cline
ZIT, AGO
Asst AG

CC:
DA, CSFOR
OG, USASTRATCOM-PAC
SUBJECT: Operational Report of HQ, 1st Signal Brigade (USASTRATCOM) for Period Ending 31 January 1970, RCS CSFOR-65 (R2) (U)

HQ, US Army Strategic Communications Command, Ft Huachuca, AZ 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:

[Signature]

W. C. Alderson

USAFFE

Major AGO

Asst Adj. Gen
Operational Report - Lessons Learned, HQ, 1st Signal Brigade

Experiences of unit engaged in counterinsurgency operations, 1 Nov 69 to 31 Jan 70.

CG, 1st Signal Brigade.

15 February 1970