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WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGDA (M) (29 Jul 70)

FOR OT UT 70B026

27 August 1970

SUBJECT: Senior Officer Debriefing Report: MG Thomas M. Rienzi, CG, 1st Signal Brigade and ACSC-E, HQ, USARV, Period 30 Sep 1968 to 19 June 1970 (U)

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1. Reference: AR 1-26, subject, Senior Officer Debriefing Program (U) dated 4 November 1966.
2. Transmitted herewith is the report of MG Thomas M. Rienzi, subject as above.
3. This report is provided to insure appropriate benefits are realized from the experiences of the author. The report should be reviewed in accordance with paragraphs 3 and 5, AR 1-26; however, it should not be interpreted as the official view of the Department of the Army, or of any agency of the Department of the Army.
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Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY VIETNAM
APO SAN FRANCISCO 96375

9 JUL 1970

AVHGC-DST

SUBJECT: Senior Officer Debriefing Report - MG Thomas M. Rienzi

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

1. Reference paragraph 6, AR 1-26.
2. Attached are three copies of the Senior Officer Debriefing Report prepared by MG Thomas M. Rienzi. The report covers the period 30 September 1968 - 19 June 1970, during which time MG Rienzi served successively as Deputy Commanding General (four months) then as Commanding General, 1st Signal Brigade and concurrently, Assistant Chief of Staff, Communications - Electronics, Headquarters, United States Army Vietnam.
3. MG Rienzi is recommended as a candidate guest speaker at appropriate service schools and joint colleges upon his eventual return to CONUS.

FOR THE COMMANDER:

1 Incl
as (trip)
2 cys wd HQ, DA

A handwritten signature in cursive, reading "Clark W. Stevens Jr.", is positioned above the typed name.

Clark W. Stevens Jr.
Captain, AGC
Assistant Adjutant General

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DEBRIEFING REPORT

(RCS-CSFOR-74)

Country:

Republic of South Vietnam/Thailand

Debrief Report by:

Major General Thomas Matthew Rienzi

Duty Assignment:

Commanding General, 1st Signal Brigade and concurrently,
Assistant Chief of Staff, Communications-Electronics, Headquarters,
United States Army Vietnam

Inclusive Dates:

2 February 1969 - 19 June 1970 - Commanding General
30 September 1968 - 1 February 1969 - Deputy Commanding General

Date of Report:

4 June 1970

THE "PREFACE" AND "SUMMARY" OF THIS REPORT CAN BE READ
IN APPROXIMATELY FIVE MINUTES.

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PREFACE

(U) Communications-electronics continue to play a most important and commanding role in the Vietnam conflict. As redeployment and withdrawal actions progress, the most economic and effective use of remaining in-country combat and logistical resources will require flexible, reliable and responsive communications-electronics support for efficient operations.

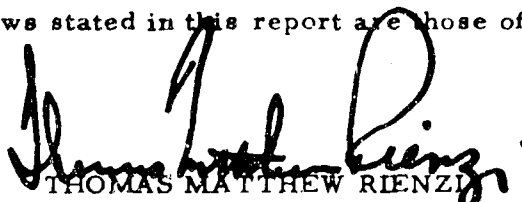
(U) This means that the build up of the Vietnamese Armed Forces communications capability is of paramount importance as an objective in our efforts at Vietnamization. Having established the most effective and extensive communications-electronics system ever to become operational in a combat zone, our emphasis must now turn to training the South Vietnamese to operate that portion of the system for which they have valid requirements and which they have the capability to sustain. Much progress and planning has been done in this area and much remains to be done by our successors.

(U) The following report highlights areas concerning communications-electronics in Vietnam. It continues Brigadier General William M. Van Harlingen's debriefing report of 18 January 1969 and portions of this report update parts of General Van Harlingen's report.

(U) This report places Vietnamization activities first, then non-equipment topics, followed by items concerning equipment and its use, and finally, a section on topics solely concerning the 1st Signal Brigade. Each item is labeled as to primary source, i. e., USARV or 1st Signal Brigade.

(U) The topics and ideas presented here are suitable for use in many areas. Possible use in the Department of Defense and Army Training Centers and Schools is readily apparent, along with the US Army's Combat Development Command, the Office of the Assistant Chief of Staff for Force Development, the Electronics Command and other commands of the Army Materiel Command, the United States Army Strategic Communications Command, Defense Communications Agency, and finally, the Office of the Assistant Chief of Staff for Communications-Electronics, Department of the Army.

(U) Responsibility for the views stated in this report are those of the undersigned.


THOMAS MATTHEW RIENZI
Major General, US Army

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SUMMARY

I. (C) Vietnamization (USARV-Brigade): Vietnamization of communications-electronics is the most important aspect of our mission in Vietnam at the present time and is epitomized in our Cung Than Thien - "Buddies Together" program. Using the same type of equipment as the 1st Signal Brigade, the ARVN Signal Corps will perform very effectively once totally trained. The training exercise at the Dong Tam Integrated Communications System (ICS) site is a fine example of what can be expected in Vietnamization, and the experience gained at that site will help in a large measure to smooth future communications-electronics site turnovers. But the rate of these base and system exercises is closely related to the success of the Vung Tau ARVN Signal School and its new Integrated Communications System's Training Department opening on 1 July 1970 manned by a US contractor. These training exercises must be properly planned. The resultant dual operation and parallel organization will make collocated operations centers desirable and probably essential for both the integrated "long haul" communications system and local Corps Area Communications Systems.

II. (C) Planning (USARV-Brigade): The major method for long range communications-electronics planning is the Communications-Electronics

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Staff Committee (CESC) of the US Embassy Mission Council. The committee is involved in current and post-hostilities planning and provides top-level coordination of all communications-electronics activities in Vietnam. USARV and the 1st Signal Brigade are most active as members of the various working groups of this committee. The 1st Signal Brigade was active in 1969-1970 in post-hostilities planning, but has now redirected its planning efforts toward Vietnamization and redeployment. In all our planning the threshold of communications-electronics withdrawal cannot be in any linear scale, i. e., so much equipment for so many troops. It must be related primarily to the deactivation of bases and headquarters rather than to the drawdown of personnel and equipment. Facilities must be retained to insure that communications-electronics support will not fail residual military requirements or will not fail in the development of a future Single Integrated Telecommunications System (SITS) for Vietnam and Thailand. The rapid build up of the Brigade in 1966 required total and major reorganization to cope with the diverse and changing missions and was accomplished by a complete TAADS update in March 1970. However, we learned that steps should be taken to reduce the effort and time it now takes to process TAADS documents to fruition and implementation. Decentralization of approval to the commanders of major commands of the Army is a must.

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III. (U) Interface with MACV J6 and DCA-SAM (USARV-Brigade):

The situation as it has developed in Vietnam requires the very closest cooperation between MACV J6, Defense Communications Agency - Southeast Asia Mainland, component communication elements and the Army Signal units. In general, I believe that MACV has become a little too involved in the actual operations of communications systems and must become more deeply involved in future Vietnamization plans and high level management of resources in Vietnam and Southeast Asia. Both MACV and Defense Communications Agency - Southeast Asia Mainland must pursue policies which will result in significant reduction of nice-to-have requirements. Continuing liaison and top-level interest by all concerned, as has been done during this tour, will assure total achievement of this objective. The rapport and command arrangement in Southeast Asia are of the highest order and are the most outstanding throughout the world.

IV. (C) Communications for Cambodian Combat Operations (USARV-Brigade): During the initial phase of the Cambodian operation, units used organic FM communication in the secure mode whenever possible. As the operation expanded, communications were extended using 1st Signal Brigade multichannel VHF systems to provide tie-in to the Corps

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Area Communications System, where additional circuits were provided for the operation. One problem encountered was the growing deadline rate of tactical signal equipment indicating the need for increased emphasis on daily operational checks of organic equipment. Photographic coverage, both still and motion picture, was provided to all major units engaged in the operation. The high level interest in the operation emphasized the requirement for airlift of film to higher headquarters and CONUS and for use of the defense satellite for photo transmission by electrical means.

V. (U) Personnel and Training (USARV-Brigade): The training of junior officers and enlisted personnel for communications-electronics positions in Vietnam is most vital to this war effort. Continuous liaison with CONUS schools has produced numerous course changes, but there will always be opportunity for improvements. Personnel are assigned to the 1st Signal Brigade through both United States Army Strategic Communications Command and United States Army Vietnam channels. We have found that a weekly meeting between the two staffs to assign communications personnel where needed has been significantly effective. The Brigade has an active Junior Officer Retention program which has placed it above the United States Army averages. This is a must and resources must be expended for this purpose.

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VI. (U) Communications Studies (USARV): In September 1969, United States Army Vietnam was tasked to provide input to Department of the Army on all communications assets in Vietnam. The final product was a monumental task giving a complete picture of all communications in Vietnam, its dollar value and its usage in this war. In addition to satisfying the Washington requirement, the report has been of considerable use in planning at the USARV level. We were also directed in 1968 to evaluate communications-electronics in Southeast Asia (COMSEA Study - General Doleman Board) to form a basis for more scientific methods of determining communications-electronics requirements. The report was completed and the data is now being reduced for use in future requirements and in efforts to better manage communications-electronics assets in a "Management Information System."

VII. (U) Management Tools (USARV-Brigade): A bimonthly USARV Signal Officers Conference promotes beneficial formal and informal interchange between the Communications-Electronics staff and the Signal Officers of USARV units. Monthly correspondence between Commanding General, Electronics Command, and myself has resulted in a timely flow of information between USARV and ECOM. In the 1st Signal Brigade, a "Quarterly Review and Analysis" provides an in depth measure of

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performance by pointing out problem areas and stimulates analyses to reduce problems which when coupled with our biweekly Computerized Communications Analysis briefings assures detailed management of our resources at the least cost. The experience with the Brigade has indicated that organic automatic data processing capability would be very desirable for all facets of communications-electronics planning, operations and funding. Future employment of a similar Signal Brigade should include this capability. "Quality Assurance" has been emphasized at all levels and has greatly improved our effectiveness and efficiency as a communications-electronics organization.

VIII. (U) Information Activities (USARV-Brigade): USARV Communications-Electronics publishes a bimonthly "Command Communications Pamphlet" which provides a good reference for Signal Officers in Vietnam. The 1st Signal Brigade information program emphasizes the development of "unit esprit", knowledge of "why we fight" and information for our families at home by a biweekly newspaper, "The Communicator"; by command emphasis on the Command Information Program; by continuous command visits; by Brigade history and information brochures; and finally by active participation in the Hometown News Release Program.

IX. (C) Concepts for Communications in Support of Field Operations (USARV-Brigade): The redeployment of the 9th Infantry Division and

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the 3rd Brigade of the 82nd Airborne Division along with the 3rd Marine Division, provided valuable experience in communications support of withdrawal actions. The 1st Infantry Division withdrawal as a result of this experience was accomplished with the least difficulty. The Brigade operates communications systems in support of the US Navy SEALORDS operation in the Delta region of the Republic of Vietnam (IV Corps Tactical Zone). These Navy required systems should be turned over to the Vietnamese as soon as possible. The Brigade contingency force, the 972nd Signal Battalion, was redeployed in December 1969, and the organic Signal Groups have had to form their own separate contingency teams. However, the expected future contingencies can be supported with present resources which were used quickly and efficiently during the spring Cambodian actions.

X. (C) Communications Security Aspects (USARV): The automatic secure voice communications system (AUTOSEVOCOM) was completed during 1969-1970 and is in working order. Some problems of equipment and parts shortages occurred which can in the future be anticipated by the senior staff in Washington. The use of tactical secure voice (NESTOR) equipment has increased with the acceptance by commanders of the importance of covered message traffic. The wheel code has been introduced into Vietnam as the result of requirements for a more durable,

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easily read and quickly usable field code. It has great user appeal and should markedly reduce the propensity of all units to utilize low level, unauthorized, useless and immediately breakable codes. COMSEC logistic support in Vietnam is highly satisfactory with the equipment in the hands of the user being always operational. The introduction of tactical voice repeater sets has received enthusiastic reception and allows fully covered retransmission, thereby extending frequency modulated (FM) tactical radios to ranges of 100 miles.

XI. (C) Selected Communications Operations (USARV-Brigade): USARV has an active electronics warfare program characterized by complete distribution of proper procedures throughout the command, close coordination with other agencies and quick response to electronic countermeasures (ECM) and electronic counter-countermeasures (ECCM) developments. We have been allocated about half the spectrum of usable frequencies, with the Vietnamese being allocated the other half; however, our density of equipment far exceeds that of the Vietnamese Armed Forces and serious crowding is the result. As a consequence aggressive and detailed frequency management is a necessity. The USARV Military Affiliate Radio System (MARS) program has been an outstanding success and provides a very important boost to troop morale. The spread of units in

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Vietnam over a great distance has required the use of tactical antenna towers (AB-216) between major headquarters. To manage these towers, USARV Communications-Electronics staff was tasked to monitor their issue and use based on country-wide requirements. SCATBACK courier operations were started in 1969 and solved existing courier problems. Continuing effort is being made to reduce the number of long haul dedicated sole user circuits. Finally, outages on circuits being routed on 1st Signal Brigade paths are invariably shorter than outages on circuits interfacing with other agencies. Considerable command emphasis and coordination at the highest levels are necessary to get these other circuits restored in acceptable times.

XII. (U) Equipment Highlights (USARV-Brigade): The second generation high capacity Army Area Communications System (AACOMS) equipment is in Vietnam and good results should be expected, but in the future, repair parts and auxiliary equipment should be packaged with the equipment. To meet the airborne radio relay requirements of USARV more effectively, the Otter aircraft with communications consoles are being replaced by Ute aircraft with six secure frequency modulated (FM) sets in a communications console which has worked extremely well. However,

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the cost of this radio relay mission is extremely high. Finally, an intensive management program for power generators has greatly reduced communications outages due to inadequate power.

XIII.(U) Record Communications (USARV): With the build up of US forces, there was a requirement for secure, high speed, computerized record communications. The result was the installation of automatic digital network switching centers at Phu Lam and Nha Trang. Withdrawals of forces necessitated a review of the installation schedule with the result that substantial savings were realized from planned costs. A new plan was developed providing a flexible, cost effective automatic digital network system commensurate with current US forces redeployment planning. In the future, substantial transportable terminal equipment should be planned for the military assistance environment and sufficient contingency automatic digital network assets should be included for unplanned requirements. Joint low level working groups proved a great help in the management of this system. Additionally, the lack of an operational CONUS training base equivalent to an overseas automatic digital network station inhibits greatly the final step in producing trained replacements to operate this multimillion dollar system on a continuing basis. This training base is also essential in other areas of dial telephone exchange

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subscriber acceptance with few major problems. The Joint Cutover Integrated Working Group was created to coordinate and direct the installation and cutover of each automatic switch and this concept should be used in similar future operations. It was managed and directed by the 1st Signal Brigade. We learned that extensive and continuing subscriber education is necessary to accustom users to the direct distance dialing system. Overloading of the tandem switches is occurring and indicates that the percentage of phones having access to the tandem switch should be reduced from 30 to 15 percent and that circuit quality must be maintained. A selective monitoring program is underway and has resulted in tighter control of the use of telephones. The automatic voice network program has been successfully implemented, despite some indecision of the Program Manager in the early phase. The 1st Signal Brigade pushed to keep the program on schedule. For future projects of this type, the 1st Signal Brigade should have the management capability and be so tasked. The Brigade publishes the telephone directory for Vietnam. A continuing problem in getting accurate listings has been alleviated by active management and aggressive follow-up. The problem was overcome primarily by a tremendous publicity and education program designed to have users submit proper information. This program was successful for the last issues of the Vietnam and Thailand directories and should be continued.

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(DTE), emergency action consoles (EAC) and tandem switching centers. Army automatic digital network personnel management should be centralized and a CONUS rotation base established. Progress has been made in the consolidation and integration of Signal Corps communications centers and Adjutant General message centers. The USARV telecommunications center is currently planned for consolidation. Poor user discipline and lack of adequate command control impair the efficiency of record communications. Over half of all traffic now being transmitted is lengthy operational immediate reports which are, when transmitted, over 24 hours old. Message Review Boards are excellent tools for record traffic supervision and must be aggressively pursued to alleviate this problem.

XIV. (U) Telephone Service (USARV): The USARV and MACV Emergency Action Console telephone systems have maintained high standards of performance, although maintenance procedures are still being intensified. We have found that it is essential, because of their day-to-day contact with high level command, that well qualified, experienced personnel be assigned to these emergency action communications. An increased level of competence must be achieved with the Army Switchboard Operator (MOS 72C). The Southeast Asia Automatic Telephone System has had

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XV. A. (U) Engineering and Installation (Brigade): The Communications Systems Engineering and Management Agency (CSEMA) is a necessary part of the Brigade which supervises Class IV projects and provides the specialized engineering actions incident to redeployment and Vietnamization. The Signal Project Storage Site provides quick, centralized response to combat requirements and should be continued. Because of the tremendous Brigade construction program, future Army structure should include a special engineer battalion for power, air conditioning, special wiring and special buildings trained for communications-electronics requirements. Experience has also indicated that cables must be protected by burying to provide reliable service. The Integrated Communications System is highly flexible in operation, but possible future concentration of units and circuits during redeployment may require the procurement, engineering and installation of larger channel deriving equipment.

B. (U) Logistics (Brigade): The Area Maintenance and Supply Facility (AMSF) provided centralized repair and supply for fixed communications at both the direct and general support level. Our serious technical supply and maintenance problems can be tied to a lack of experience and sophistication by the officers in the logistics support program. This, in turn, is largely due to the lack of a military CONUS base and multiplies the logistics problems. The retrograde of fixed

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communications-electronics equipment was undertaken by the 1st Signal Brigade and employed only semi-trained soldiers with fine supervisors to achieve CONUS quality packing. All equipment should be recovered for which an immediate requirement exists and the remainder should be carefully scrutinized. A special program was organized to provide test equipment and calibration for mobile and fixed communications-electronics systems. Six vans operated by a commercial contractor under the logistical organization satisfy this requirement. More timely logistics actions have resulted from the establishment of over 25 provisional direct support units within the 1st Signal Brigade.

C. (U) Budgeting (Brigade): During this tour, it was discovered that a tendency exists to underfund at the beginning of the year. This should be remedied by increasing the dollar guidance based on data from prior fiscal years. An accurate statement for future funding requirements for fixed telecommunications projects is impossible, but some funding actions associated with future fixed Class IV projects and locally approved tasks have been taken.

D. (U) Military Justice (Brigade): The wide dispersion of the Brigade prompted the decentralization of courts-martial jurisdiction to group level throughout Vietnam and Thailand.

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E. (U) Audio-Visual Operations (USARV): Much more emphasis has been given to record photography and the output and acceptance by Department of the Army has greatly improved. Special photographic skills cannot be taught by the Signal School and have to be learned solely by on-the-job training.

F. (C) Physical Security and Enemy Activity (Brigade): The Brigade has experienced low personnel casualty and equipment damage rates because physical security is good and continues to be improved. The great majority of the enemy activities directed against Brigade units have been stand-off mortar or rocket attacks by fire. Continuous training and dynamic leadership are required to assure physical security of the over 250 sites operated by the 1st Signal Brigade in Vietnam and Thailand.

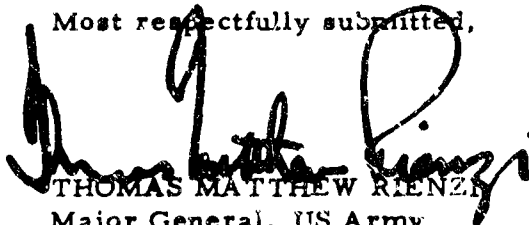
XVI.(U) The Soldier (USARV-Brigade): We must pay tribute to the absolutely tremendous American soldier here in Vietnam and Thailand. His superb training when coupled with his great American background has provided attitudes and skills which no Army has ever before fielded in the history of war. Our soldiers are dedicated, purposeful, knowledgeable, brave, aggressive and a credit to Our Country. He is the unsung hero of all of our actions in Southeast Asia.

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(U) This summary gives a quick overview of the most rewarding 21 months of my life. More extensive coverage of all points made in this synopsis is found on the following pages and detailed in the Table of Contents pages 1 to 5.

Most respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Thomas Matthew Rienzi', is written over the typed name.

THOMAS MATTHEW RIENZI
Major General, US Army
Commanding General
1st Signal Brigade and
Assistant Chief of Staff,
Communications-Electronics
United States Army Vietnam

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I. Vietnamization of Communications

A. (C) General Assessment of the ARVN Signal Corps (USARV): The major communications capability of the Republic of Vietnam is the ARVN Signal Corps. It presently operates the Territorial Communications System down to province and regional level. Aside from US links and the Vietnamese Postal Telegraph and Telephone (PTT) operated Southern Toll System in IV Corps, the Territorial System provides all communications for the Republic of Vietnam. I believe that the ARVN Signal Directorate can provide as reliable communications support as the 1st Signal Brigade using the same first generation equipment. At the present level of support for US combat assistance teams and Civil Operations and Revolutionary Development Support (CORDS) personnel, the ARVN does not have the equipment and personnel resources to take over from the 1st Signal Brigade. I anticipate that, by December 1971, they will be ready to take over radio relay, manual switchboard and telephone responsibilities below regional level. Given the equipment and training, ARVN Signal troops can perform as well as soldiers of any other army, including the US, using US first generation items of equipment and doctrine.

B. (U) Turnover of the Dong Tam Base Camp Facility to the ARVN (USARV): Simultaneous with the announcement of the redeployment of the 9th Infantry Division from the Republic of Vietnam, the decision was made to transfer the division base camp at Dong Tam to the ARVN. When the turnover announcement was made, Dong Tam was served by a van-mounted dial telephone exchange, an automatic secure voice communications system terminal and two automatic digital network terminals. These facilities were supported by an extensive outside cable system, Corps Area Communications Systems (CACS) and a terminal in the Integrated Communications System - Southeast Asia containing high quality tropospheric scatter equipment. As the 9th Division deployed, the dial exchange was replaced by a manual switchboard which was loaned to the ARVN 7th Division until they installed their own. The cable plant was transferred outright. The Corps Area Systems were greatly reduced. The automatic digital network was removed. The Integrated Communications System - Southeast Asia site remains. This modus operandi should, I believe, be followed in future base closings. Whatever facilities can be transferred to the ARVN should be transferred. At this time we are preparing to completely ARVNize the Corps Area Communications Systems with their

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systems and further allow them to man and operate the Integrated Communications System site at Dong Tam with their personnel trained at the Signal Center and School at Fort Monmouth, New Jersey and in the 1st Signal Brigade here in Vietnam.

C. (U) Communications-Electronics Training of ARVN Personnel (USARV): The primary means of achieving Vietnamization of the Integrated Communications System - Southeast Asia will be to produce trained Vietnamese operators and repairmen from an Integrated Communications System and dial telephone exchange training facility. It will be similar but smaller in scope than the Signal Center and School at Fort Monmouth. The major portion will be located at the ARVN Signal School at Vung Tau. This site will contain the main classroom and mockup areas and will also serve as one terminal of an operating training link. It will contain mockups of such equipment as the REL-2600 tropospheric transmitters, receivers and power amplifiers; AN/FRC-109 microwave transmitters and receiver; AN/FRC-17 voice multiplex; AN/FCC-25 teletype multiplex and a variety of technical conditioning equipment and ringers. The training terminal will be a standard integrated communications system installation containing radio, multiplex and technical control equipment. The training links will be composed of the existing tropospheric link from Vung Tau to Phan Thiet and a microwave link from the training facility to the VC Hill integrated communications system site on the hill tops surrounding Vung Tau. The two systems will be connected in a baseband repeater configuration on VC Hill. Since CINCPAC has directed that we must be able to switch the Vung Tau - Phan Thiet link back to regular traffic on short notice, we are installing baseband cable between the training facility building and the electrical engineering building on VC Hill.

Students will first be trained in the English language, then receive basic instruction in electronics and go on to classroom and practical training on the equipment at the three operating sites at Phan Thiet, VC Hill and in Vung Tau town.

D. (U) Vietnamization of the Corps Area Communications Systems (USARV): I believe that Vietnamization of the Corps Area Communications Systems (CACS) can be implemented more smoothly if the ARVN create operational agencies parallel to those of the 1st Signal Brigade. As the

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ARVN begin to take over sites and systems, some of the circuits will be maintained by them and the Brigade. In order to resolve the obvious problems that might arise from two agencies maintaining the same circuits, I believe the ARVN must create a counterpart to the Brigade's Communications Operations Center and collocate. In doing so, the ARVN of necessity would be required to furnish English-speaking people and orient their records toward the English language since all current records and procedures are in English. Reporting of information and data flow must be done separately at the outset, the ARVN through its channels and the US through its channels, and integrated at the 1st Signal Brigade's Army Communications Operations Center (ACOC) level to assure accurate status. After a substantial amount of the Corps Area Systems comes under ARVN control, I feel that circuit validation authority should be shifted from USARV to MACV so that the ARVN would have a more direct and speedier channel.

E. (C) Vietnamization of the ICS-SEA (USARV-Brigade): Plans have been developed by the 1st Signal Brigade and USARV Communications-Electronics for Vietnamization of the Integrated Communications System - Southeast Asia (ICS-SEA) with 30 sites to remain in-country for the Vietnamese and 23 to be retrograded.

In September 1969, JCS tasked CINCPAC and MACV to develop a time-phased plan for turnover to the Government of South Vietnam a back-bone communications system to meet the needs of residual US and other Free World Military Assistance Forces as well as the Vietnamese Government agencies. Without tasking from MACV, we formed a special planning group from our staffs at USARV and 1st Signal Brigade to develop a "strawman" plan. The basic premise of the group was that as much US equipment as possible would be withdrawn for retrograde out of country and that the Vietnamese training effort would be limited to their essential requirements and capabilities for a single integrated communications system. Most of the features of the "strawman" plan were incorporated into the plan submitted to the JCS by MACV. I strongly suggest that this extensive "strawman" procedure be followed for similar requirements in the future.

Two major problems in connection with the Vietnamization are communications and English language training. For communications training, CINCPAC has approved the system from Phan Thiet to Vung Tau to be used

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for ARVN training. This should provide the ARVN with the realism needed to make them effective operators and technicians for a large high quality system.

Because the program will involve Vietnamese and Americans working together in training and in operation of the system, I feel there should be an extensive English language course for all Vietnamese who will work on the system. All records and procedures are in English and the Vietnamese must be able to speak and write English fluently. As the Vietnamese begin to take over Integrated Communications Systems sites, there will be both Americans and Vietnamese working on various sites. The Vietnamese will need an operations center to monitor their efforts and this could be collocated with the operations center of the 1st Signal Brigade. But again, the Vietnamese will have to learn English reasonably fluently to effect a smooth transition of this project to them.

As a pilot project in the Vietnamization of Integrated Communications Systems, the site at Dong Tam was proposed for turnover on 1 February 1970. From the outset, however, the project had its difficulties. For example, sufficient ARVNs were not available in some military occupational specialties so others had to be substituted and trained on the site by US personnel. Billeting was inadequate at first but was in time adequately provided. There were other administrative and logistical problems at the site and the start of the US training evaluation of the ARVN was moved to 1 May. At that time, there were only seven remaining US personnel, with three being the ultimate goal to assure management direction and maintenance control during the interim period between training evaluation and operational assumption of the site within a Vietnamese Single Integrated Telecommunications System (SITS).

In addition the 1st Signal Brigade operated a most extensive Signal training facility and a unit training facility at Vung Tau with our Regional Communications Group to begin the training of ARVN technical controllers, dial central office maintenance men, microwave repairmen and courier equipment repairmen. During the period of this report the school produced over 189 fully trained ARVN soldiers in these specialties who were then integrated into the US country wide system. In the relatively soft skills of cable splicer, linemen and radio repairmen over 210 were trained in the US Signal Training Facility at Long Binh and in the ARVN and US units during the implementation of the "Buddy Program".

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The Buddy Program - "Cung Than Thieu" or "buddies together" is the cornerstone of the 1st Signal Brigade's unit-to-unit relationship with all ARVN Signal units on both the tactical and fixed sites of the program. Intensive leadership and training operations are conducted daily from the local company level to the 1st Signal Brigade and ARVN Signal Department level. Training quotas related to the ARVN annual requirements are allocated to the lowest level of both echelons of command to help assure fulfillment of the ARVN requirements in the shortest possible time. Additionally, an immense spirit of "camaraderie" is built up which will assist in the training during the collocated ARVNization programs at all locations.

II. Planning

A. (U) Long Range C-E Planning (USARV): The major vehicle for long range C-E planning is the Communications-Electronics Staff Committee (CESC) of the US Embassy Mission Council which is concerned with current and post-hostilities planning. The committee is chaired by the MACV J6 with representation from US Agency for International Development (USAID), The Embassy, Joint US Public Affairs Office (JUSPAO), Civil Aviation Advisory Group (CAAG) and the service components. Its two subpanels are the Planning Committee for Military Communications* and the Planning Committee for Single Integrated Telecommunications System (SITS).

The military planning committee assists the Government of Vietnam in establishing military requirements and priorities, simplifying current systems and reviewing proposals for new systems to insure that they are consistent with military requirements. The Single Integrated Telecommunications System committee assists the Government of Vietnam in establishing overall civil and military requirements, developing long range plans for a Single Integrated Telecommunications System within the capability of the Vietnamese to operate, and review of proposals to insure that they are consistent with the Single Integrated Telecommunications System plan. The Vietnamese are establishing counterpart agencies.

So far, several significant joint actions have been taken such as:

1. Elimination of a proposed RVNAF microwave system by using the Integrated Communications System - Southeast Asia to meet circuit requirements in question.

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2. Joint use of the Government of Vietnam's Southern Toll System by military and civil agencies.
3. Establishment of a 1st Signal Brigade technical controller course (MOS 32D) for RVNAF personnel.
4. Joint approval of a US plan to implement the Vietnamese Modernization and Improvement of Communications-Electronics, J-195.

From the outset I have had a deep, personal interest in the Communications-Electronics Staff Committee and its subpanels. While I am not a formal member of the main committee, I have attended its meetings as a standby observer and been kept informed of subpanel proceedings through our representatives. While none of these groups have moved as rapidly as we would have liked, in view of the significant redeployments of US troops which are taking place, we have been able to make known the many tasks which must be accomplished if the goals of Vietnamization, establishment of the Single Integrated Telecommunications System and maximum retrograde of Army communications-electronics assets are to be achieved. We are prepared to move in whatever directions are decided and, although only a standby observer, have definitely assisted the entire Embassy country team operation. We must continue to assist the Communications-Electronics Staff Committee at the Embassy in every way possible.

B. (C) Post-Hostilities Planning (Brigade): The Brigade became active in post-hostilities planning during January 1969 in response to tentative guidance from USASTRATCOM-PAC and USARV. In the absence of definitive plans, I directed that our efforts be expended in preparation for any possible alternative. At the same time we made attempts to get more specific guidance. We conducted inventories of equipment, studies for retrograde of various types of equipment and operational studies for different levels of reduction. These provided a data base for detailed planning. At the same time, we published OPLAN 69-70 as general administrative guidance for our units which would be valid in almost any alternative of events. It is designed so that specific guidance, such as reduction schedules and troop redeployment lists, can easily be inserted to make it a meaningful operations order when directed for execution. Now, however, post-hostilities planning has all but ceased in favor of Vietnamization and Presidential withdrawals. However, the planning documents are totally valid for future broad planning.

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C. (U) Reorganization of the Brigade (Brigade): The rapid build up of US forces in Vietnam resulted in a concurrent build up of the Brigade units from three groups and eight battalions in 1966, to six groups, 23 battalions and eight separate companies in 1968. Due to diversity in unit missions and mix of mission-essential equipment and varying MOS requirements (192 different MOS's and approximately 20 additional skill identifiers), there were no standard TOE's which could accommodate our requirements. In an effort to resolve this problem, we developed a reorganization concept plan which was subsequently approved by Department of the Army. From late 1968 to mid-1969, we submitted new proposed authorization documents through regular channels but it quickly became apparent that this method was much too slow to give us the help we needed. Therefore, we dispatched a team of officers, headed by the Chief of Staff, 1st Signal Brigade to assist the Department of the Army staff with on-the-spot rationale and clarification of our reorganization documents. This aided immeasurably and we succeeded in gaining Department of the Army approval of the documents. Our reorganization took place on 1 March 1970 and will be complete by June of this year.

It is anticipated that phased troop reductions will not permit organizational stability in the Brigade. This is due primarily to a decrease in troop strengths without a comparable decrease in missions. This will necessitate continuous reapportionment of resources. It is recommended that immediate steps be taken to reduce TAADS document processing time at intermediate headquarters and at Department of the Army. Consideration should be given to standardized automated programs that can be used at all command echelons for annotating and processing TAADS updates. The automated outputs could be accomplished by written justification for changes, additions or deletions to current authorizations.

With these facts clearly in mind and having spent almost 20 months to complete a major cycle of TAADS change necessitated by changing operations in a war, decentralization to the Commanders of Major Commands of the Army to approve changes within their personnel and equipment level is a requirement if the TAADS system is to survive during a war.

Command emphasis, particularly at the unit level, should continue to be placed upon the improvement of procedures to identify and utilize personnel in their military occupational specialties (MOS's) and additional skill indicators (ASI's).

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D. (U) Redeployment of Units (Brigade): The 107th Signal Company (National Guard, State of Rhode Island) redeployed and Headquarters and Headquarters Company, 972nd Signal Battalion was inactivated during Phase II of the drawdown of US forces. There were no significant problems and personnel processing was conducted smoothly. Many Regular Army personnel who were eligible to redeploy requested reassignment to units remaining in Vietnam, and personnel who were not eligible to return to CONUS were reassigned within the Brigade to meet existing shortages. I feel a major reason for the smooth operation in this redeployment was that a firm redeployment plan was issued early in the move to facilitate the many actions that had to be accomplished. This included close coordination with gaining organizations in CONUS.

E. (C) Operations and Contingency Plans (USARV): Considerable time and effort are expended in developing and maintaining operation plans and letters of instruction in support of various communications-electronics projects. Several of the plans we maintain were written to support contingency plans of MACV and USARV, e. g., USARV Continuity of Operations, USARV Alternate Army Operations Center Locations and MACV Command Post Emergency Relocation for Combat Operations. The staff also works with Defense Communications Agency - Southeast Asia Mainland in connection with restoral plans for baseband, 439L underseas cables and tandem switches and writes supporting plans as required. Frequent changes are required by changes in concept, thoughts and redeployment of US troop units, but these plans have proved their worth in our daily operations.

III. Interface with MACV J6 and DCA-SAM

A. (U) Relationship of USARV Communications-Electronics Division with MACV J6 (USARV): MACV J6 has no communications operations element of its own, but does exercise operational control of the Defense Communications System in Vietnam through Defense Communications Agency - Southeast Asia Mainland which is responsive to MACV. USARV C-E exercises operational control of the 1st Signal Brigade. The Brigade also operates the Army's portion of the Defense Communications System so the Brigade is not free to move its communications assets at will, but must obtain permission from MACV and many times from Washington whenever a DCS system is in question. The relationship is quite good between USARV and MACV staff elements which assures that the manager and operator understand and work within their frames of reference.

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The only major area of contention is the feeling by part of MACV J6 that for a communications system to run well, it must be designated a Defense Communications System. The problem with this is that designation of Army resources as Defense Communications System removes control of these assets from the Army to Defense Communications Agency - Southeast Asia Mainland and MACV J6. This reduces the control of the system and the flexibility needed to respond to the day-to-day Army operational communications requirements.

We have tried to solve this problem by encouraging a close relationship between the two staffs with a view towards informing MACV J6 of our position in regard to seizing control of Army equipment. In addition, I obtained some fixed communications facilities for those systems which are quite properly a part of the Defense Communications System. Once these were installed, we released tactical communications equipment from the Defense Communications System for use in the local Army systems. I feel this effort should be continued so that USARV will be able to meet its own Army requirements without involving MACV, DCA-SAM and Washington during quickly moving situations like the Cambodian Campaign.

B. (U) Liaison Unit DCA-SAM (Brigade): A liaison team is stationed at Tan Son Nhut Air Force Base for coordination with Defense Communications Agency - Southeast Asia Mainland. The team is responsible for coordinating all circuit outages involving Defense Communications System circuits that traverse Corps Area Communications Systems; circuit problems that involve Air Force subscribers and Army communications systems initial interservice requests for assistance when area resources have been exhausted; relay transmission of communications reports, operational direction messages, operational coordination messages and individual problems that may arise with the individual component or MACV. I feel that this team serves a valid function and no structural changes are required for the team to continue successful operation.

C. (U) Employment of Tactical Equipment in the Defense Communications System (USARV): During the build up in the Republic of Vietnam and prior to the completion of the Integrated Communications System - Southeast Asia, a great many tactical line-of-sight and tropospheric scatter systems were installed and designated as Defense Communications System trunks. These systems did not and do not meet Defense Communications Agency transmission standards but the prevailing philosophy was that only

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Defense Communications Agency could manage communications effectively, so the downgrading was acceptable. Even though we have come a long way and are fully capable of management, and Defense Communications Agency has the Integrated Communications System - Southeast Asia, many tactical systems remain designated as Defense Communications Systems which should be transferred to the tactical Corps Area Communications System. The Defense Communications Agency should be limited to managing fixed high quality station equipment, as it is elsewhere in the world, and tactical systems should be managed by tactical units, USARV and the 1st Signal Brigade. My predecessor, General Van Harlingen, and I have both strived toward this goal in coordination with MACV and results have been achieved.

D. (U) Parallel Communications Systems (USARV): The proliferation of communications since 1965 has resulted in the installation of numerous parallel Defense Communications Systems and Corps Area Communications Systems. Many of them are duplications. A joint effort is being made by USARV, MACV and Defense Communications Agency - Southeast Asia Mainland to identify and combine these duplicate systems so that either the Defense Communications System or Corps Area Communications System trunk can be inactivated after transfer of circuits and the equipment can be redeployed for more efficient use. These objectives should be aggressively pursued since there is duplication in the present configuration.

E. (U) MACV Directive 105-3 (USARV): The initial assignment of responsibility for area telephone support made in MACV Directive 105-3 did not adequately take into account the problems of component service manning and the capability of the service component to perform the responsibilities assigned to it. This deficiency in planning resulted in the assumption of responsibility for operations and maintenance by a component not primarily charged with the responsibility. The Army, for example, has provided telephone service and operations and maintenance of outside plant in varying degrees on Bien Hoa and Nha Trang Air Force Bases while MACV Directive 105-3 clearly assigns this responsibility to the components. Continuing action must be taken to resolve these unknown responsibilities to assure the finest communications to the field forces.

F. (U) Control of Defense Communications Systems (USARV): The redeployment of the 9th Infantry Division resulted in Dong Tam becoming a small facility with minor communications requirements rather than the large complex it had been before. It would have been

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and is practical to close out all Defense Communications System facilities there. Current policy, however, is that changes in the fixed station communications system can be made only with the approval of the Office of the Secretary of Defense and the Joint Chiefs of Staff. The theater commander is severely restricted in his ability to react to changes in requirements. I believe the theater commander should be delegated authority to realign the fixed system in concert with phasedown, redeployment and Vietnamization plans. On the other hand, determination of excess asset disposition should remain a function of the Joint Chiefs of Staff and the Office of the Secretary of Defense.

G. (U) MACV/Defense Communications Agency - Southeast Asia Mainland Management of Communications (USARV): MACV and Defense Communications Agency - Southeast Asia Mainland, as managers of the communications in RVN, are responsible for the management of the underseas cable system, group restoral plans, validation and engineering of Defense Communications System systems and circuits, the Southeast Asia Automatic Telephone System and the automatic secure voice communications (AUTOSEVOCOM), automatic voice network (AUTOVON) and automatic digital network (AUTODIN) systems. I have been impressed by the leadership of Defense Communications Agency - Southeast Asia Mainland toward improvement of these systems. Coordination has improved in the past year and I have seen significant improvement in most areas. Defense Communications Agency has appointed an overall coordinator for the underseas cable and the progress of the group restoral plans has been gratifying, with the results of MACV and Defense Communications Agency - Southeast Asia Mainland efforts readily apparent. The interest in circuit validation, requirements and quality engineering has been emphasized by MACV's close attention to critical circuits. Overall, however, I believe that MACV is becoming too engrossed in the details of circuit operations to the detriment of concentrating on future plans and broad operational actions.

IV. Communications for Cambodian Combat Operations

A. (C) General Situation (USARV-Brigade): Communications support for US/RVNAF combat operations in Cambodia was characterized by an orderly extension of the relatively stable base camp facilities. As the penetration continued the magnitude of the communications increased.

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In the IV Corps Tactical Zone the Delta Military Assistance Command (DMAC) provided an advisory team at a forward command post of the 9th ARVN Division located at Moc Hoa south of the Parrot's Beak. This forward command post made a move south to the Hong Ngu area. Supporting this advisory effort the 1st Signal Brigade provided a communications team consisting of radio teletype, multichannel VHF, a small field switchboard and a mobile communications center for secure record communications service.

In the III Corps Tactical Zone II Field Force established a forward command post at Gò Dau Ha north of the Parrot's Beak. Multichannel systems were extended to provide voice and record communications support. When the tactical operation shifted north of the Parrot's Beak the forward command post was moved to Tay Ninh East. The 1st Cavalry Division (Airmobile) formed Task Force Shoemaker at Quan Loi and a forward command post was established. From this forward command post multichannel systems were installed to forward elements at Katum, Bu Dop and Loc Ninh. The 25th Infantry Division established a forward command post at Thien Ngon. Similar forward command posts were established by the 4th Infantry Division and the 101st Airborne Division in II Corps Tactical Zone and I Corps Tactical Zone respectively.

B. (C) Operations (USARV-Brigade): Communications during the initial stage of operations was accomplished by the tactical units' organic FM radio between the maneuver elements and their bases of operation. Whenever possible they were used in a secure voice mode of operation. As operations continued and units moved further from their initial bases of operation attended FM radio relay points, both ground and airborne, extended the effectiveness and range of these nets. The establishment of these relay points also saw the use of the new regenerative repeater devices which allowed the extension of the secured FM nets.

As the penetrations into Cambodia continued, longer range tactical voice HF radio and radio teletype equipment provided voice and secure teletype transmission links from the battle area to Division and Corps command posts within Vietnam.

The ever broadening scale of the Cambodian operations placed an increasing burden on the capabilities of organic tactical communications of attacking units. Demands for additional command and control circuitry

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were matched in growth by the need to establish administrative and logistical communications between the attacking forces and their bases of supply within Vietnam. The current small tactical multichannel communications equipment (AN/TRC-163) was inadequate, both in channel capacity and range, to cope with operations of this magnitude.

The solution to this problem was the extension of large multichannel systems to the forward operating bases of the attacking forces, and the tie-in of these systems into the Corps Area Communications System in Vietnam. The Field Forces used organic communications assets to establish these systems to the attacking forces, with circuit interface into the Corps Area Communications System made at the most convenient Corps Area Communications System nodal points. To relieve Field Force communications equipment and personnel for deployment forward, additional circuits and systems were provided by elements of the 1st Signal Brigade operating the Corps Area Communications System. To provide communications in depth, additional Corps Area Communications System circuits were speedily activated, which provided the uppermost echelons of command in RVN ready access to the force commanders in Cambodia.

One of the salient points which became more and more evident as the extent and tempo of operations in Cambodia increased was reflected by the growing deadline rate of tactical signal equipment in the direct support units of organizations involved in Cambodia. Organic signal equipment must be checked and used daily if it is to prove reliable when needed by the commander. This is an old lesson which requires re-emphasizing. It can be solved by continuous command attention.

C. (C) Photographic Coverage (Brigade): Extensive photographic coverage of the Cambodian combat operations was provided by the Southeast Asia Pictorial Center (SEAPC). Two combat photographic teams were provided the forward elements of the 1st Cavalry Division during the initial thrust into Cambodia. A total of 25 combat photographers were deployed throughout Cambodia obtaining still and motion picture coverage of the 11th Armored Cavalry Regiment, 25th Infantry Division, 1st Cavalry Division, 4th Infantry Division and 101st Airborne Division. The still photographs were released daily to USARV, MACV, and DOD with many being sent over the defense satellite system to Washington, DC. Large quantities of motion picture color film were forwarded to

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CONUS for processing and subsequent utilization by DA and DOD. As a result of enemy ground fire five combat photographers were killed in a helicopter crash while returning to their base. The high level interest in this combat operation emphasized the requirement for airlift support to rapidly transport exposed film to the rear for fast processing and rapid delivery to higher headquarters. Many photos were transmitted to CONUS by electrical means via COMPASS LINK on the 1st Signal Brigade's satellite terminal.

V. Personnel and Training

A. (U) Training of Junior Officers and Enlisted Men (USARV): Real life situations in Republic of Vietnam have revealed shortcomings in training of junior officers and enlisted men. Comments from commanders indicate that the CONUS training base is still oriented toward training for world-wide employment and, with few exceptions, skills peculiar to and needed for Republic of Vietnam are not being really taught. We have through every means in our power established and continued liaison with CONUS service schools, most particularly with the Signal Center and School at Fort Monmouth and the Southeastern Signal School at Fort Gordon. As a result of these efforts, numerous changes have been made, and will continue to be made in the school system.

1. Junior officers have received only adequate training on tactical communications equipment and very little on fixed facilities such as dial telephone exchanges and Integrated Communications System - Southeast Asia stations. We have made up for this lack of training in the Signal Training Facility and by extensive on-the-job-training in the units.

2. Junior officers require more non-technical training. They lack rudimentary knowledge regarding company administration, supply procedures, and TAERS. Although they are exposed to these subjects in the basic signal officers orientation course, I see no way, aside from field experience and supervision by older officers of combating this problem.

3. Both junior officers and enlisted men are lacking in training in basic military subjects such as defense procedures, weapons, map reading, etc. They should also be thoroughly schooled in supply economy

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and procedures; in the use, maintenance and management of motor vehicles; and generally, in the School of the Soldier.

4. I have been bothered by the output of several CONUS MOS-producing and functional training courses:

a. Emergency Action Console Repairmen have been less than adequately trained because of the lack of an emergency action console at the school and too few qualified instructors. The school is scheduled to receive a console and this will alleviate some of our significant problems in maintaining this vital piece of communications equipment.

b. Personnel with MOS 31JL5 (Automatic Multiple Address Routing System and Tape Recall Unit Repairman) lack sufficient aptitude in logic and electronics background to effectively repair the tape recall unit. Generally, these men are knowledgeable of the mechanical aspects of the Automatic Multiple Address Routing System because their basic MOS is teletypewriter repair. Our solution is to train men in MOS 34D (Automatic Data Processing Repairman) in the Automatic Multiple Address Routing System and Tape Recall Unit because they have a much firmer electronics background and can be taught the mechanics of teletypewriter repair much more easily than teletype repairmen can be taught fundamental data processing.

c. Prior to FY 70, our requirements for training on the tropospheric scatter radio AN/TRC-97B were satisfied by the Air Force school at Clark Air Force Base in the Philippines. Tight controls of funds for out-of-country TDY now preclude this approach. In light of this development, people destined for TRC-97B work should be completely trained at the Air Force facility at Keesler Air Force Base, Mississippi before assignment to the Republic of Vietnam. We have made this recommendation to STRATCOM-PAC and also recommended that these men have an additional skill identifier appended to their MOS.

d. A deficiency noted by nearly all of our commanders is the lack of fundamental communications knowledge among many MOS 31M20 (Radio Relay and Carrier Attendant) personnel. Most of them are knowledgeable only in the operation of the AN/TRC-24 radio (our work-horse) and then only at the apprentice level. They seem to have received

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no training in troubleshooting and restoral of circuits. Changes have been made in the courses to help in this area.

e. A final major area which must change in our training system is the present lack of a school in which the US Army can train its own cable splicers, MOS 36E. Our major "Achilles heel" is our cable tails which are attached to high quality systems. We have made up for the deficiency by operating our own splicing course in-country and taking a large part of the output of the Air Force cable splicers school. The training while good does not really lend itself to our requirements. The cable splicing course which is in a standby status at Fort Gordon must be reinstated now.

B. (U) Assignment of Personnel (Brigade): Signal Officers and enlisted men for the 1st Signal Brigade are requisitioned through STRATCOM channels to Department of Army. Men for other Signal units in the Republic of Vietnam are requisitioned through USARV to Department of Army. Thus, personnel arrive for duty in the Republic of Vietnam from two different replacement streams. To gain the most effective utilization of these people and to retain necessary flexibility to respond to changing requirements, we have established a weekly meeting between the 1st Signal Brigade and USARV C-E staffs in which I am briefed on respective personnel situations. We then make whatever decisions are required to divert incoming resources or to effect in-country reassignments to meet urgent requirements. These meetings have proven most useful and should be continued.

C. (U) Junior Officer Retention (Brigade): The Brigade formalized its Junior Officer Retention Program on 20 August 1969 with the publication of Regulation 135-215 and the subsequent publication and distribution of a Commander's Handbook for the Retention of Junior Officers. The program emphasizes the identification of outstanding junior officers by battalion commanders upon completion of three months in-country. The wife or parents of the officer so recognized then receive a letter from me. At the four-month point in their tour all officers are formally counselled by their battalion commanders. After five months in-country those favorably considered for retention, but still undecided, receive a letter from me. These same officers are again counselled by their battalion commanders after eight months of their tour. Further, each group is required to have a field grade Junior Officer Advisor to assist

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in the execution of this program, and we have one in my headquarters as well. One prime tool in retaining junior officers has been direct coordination with Signal Branch, OPO, for assignments. This would suggest that assignment uncertainties have, in the past, kept many junior officers from remaining past their initial obligation. The Brigade retention percentages exceeded all Department of the Army averages for FY's 69 and 70.

VI. Communications Studies

A. (U) House of Representatives Communications Inquiry (USARV):

In September 1969, we were tasked to provide Department of the Army with data on communications assets and their utilization within the Republic of Vietnam to answer an inquiry on this subject by the US House of Representatives. A task force of USARV Communications-Electronics staff members was formed to define the effort and to supervise the collection and processing of data from subordinate units. Project officers provided direct assistance to major subordinate commands and visited representative brigades, battalions and fire support bases to make sure the collection requirements were understood. The task force then screened all inputs for accuracy and put it into a usable format, giving a composite picture of the communications equipment, its dollar value and its usage in the Republic of Vietnam. The final report was handcarried to USARPAC by a staff member who assisted the USARPAC staff in interpretation and analysis of the USARV report. This approach proved very successful and I believe future requirements of this magnitude should be similarly approached. This really was the first time in the history of the war that every communications item and every system was recorded and placed in proper interrelationship to the overall Vietnam requirement.

B. (U) Communications Evaluation in Southeast Asia (Brigade):

Late in 1968, Department of the Army directed that a special study be conducted to provide a comprehensive analysis of communications activities in Southeast Asia since 1964. A special study group was formed at USARPAC under the direction of LTG Doleman and a contract for needed expertise was awarded to a commercial contractor. Their assigned tasks were to:

1. Evaluate systems and management in the 1964-1968 time frame.

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2. Provide a basis for identification and projection of requirements.
3. Develop better resource management procedures.
4. Evaluate effectiveness of new systems.
5. Develop doctrine for the 1975-1980 time frame.
6. Establish a data base for all Department of the Army and Department of Defense agencies.

A data base was established and partially filled with information from existing records and reports. The group was able to collect some additional data by sending teams to several representative units of the Army in Vietnam. However, it was soon recognized that a Vietnam-wide collection effort was required to satisfy the study tasks. To this end, we made a standing offer to USARPAC to provide six officers and 60 enlisted men to conduct such a collection effort, although expiration of the commercial contract precluded its initiation at that time.

We have long believed that some more scientific method was needed to evaluate requirements. Intuitive judgment alone will not satisfy systems analysts when it comes time to justify budget requirements for procurement of equipment and design of new systems. The most direct approach to satisfy this budgeting stipulation is to establish positive user communications requirements. In this regard an attempt was made to obtain MACV approval for conducting a country-wide user communications requirements collection effort. This met opposition in headquarters MACV and was subsequently rejected.

Recalling our previous offer of data collection personnel, on 2 October 1969, DA awarded a contract to a commercial concern to conduct a training course to prepare US Army personnel for a data collection effort in Vietnam. One of the provisions of the contract called for a conference to be held for the purpose of reviewing and finalizing the scope and extent of the data to be collected for a one time fill of the COMSEA data base. The conference was held in Hawaii during October 1969. The conference recommendation, which we approved, was to collect data on all US Army Signal units in Vietnam that operate multichannel communication facilities.

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as well as selected data concerning units receiving support from these multichannel facilities.

The collection effort was one phase of a long term Department of the Army program. The ultimate product will be a vehicle to make trend analyses and doctrinal studies, to derive some basis for determining communications requirements, to be the forerunner of the communications input into the Army Management Information System and to provide a valuable historical record.

These data were collected and sent to USARPAC for subsequent transmission to Washington. Plans are being formulated at Department of the Army to reduce and analyze it there, while we are also completing necessary in-country reduction. The collected data are considered very reliable. When reduced and analyzed, the data should paint a comprehensive picture of the Signal units in the Republic of Vietnam, their facilities and the support they provide. Also, sufficient detail is included which could lead to many valid conclusions concerning communications in an internal defense environment.

VII. Management Tools

A. (U) USARV Signal Officers Conference (USARV): The USARV Signal Officers Conference was devised to bring together tactical and strategic communicators and the C-E staff people for information on new concepts, developments, materials and operations. We have had guest speakers and diversified presentations, displays and tours and round table discussions which provided the conferees an opportunity to informally discuss problems and exchange ideas and information. These conferences have proven valuable and should be continued. Experience has shown that a quarterly conference is best suited for achieving a worthwhile agenda and maintaining interest. A periodic Army-wide conference would serve a similar, worthwhile purpose. While a formal day of highlighting current areas is covered, the need for a "give and take" round table was found necessary and implemented.

B. (U) ECOM Communications-Electronics Correspondence and ECOM Communications-Electronics Newsletter to CG USARV (USARV): A fine method of informal communications between ECOM and USARV Communications-Electronics has developed through personal letters

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exchanged between the Commanding General, Electronics Command, Fort Monmouth and myself. Letters are exchanged bimonthly on C-E subjects and have proven very beneficial to both of us because of our interest in communications items procured by Fort Monmouth and used in the field under the staff supervision of USARV. Typical areas covered are transportation and lift data, quality assurance programs, characteristics of new equipment, and new requirements.

ECOM also sends the Deputy Commanding General of USARV a Communications-Electronics Newsletter. He (DCG) makes notes or comments on the communications-electronics items and forwards them to me. I also circulate the newsletter among my staff for comments which are included in the reply to the Commanding General ECOM's letter to me.

C. (U) Quarterly Review and Analysis (Brigade): Much of my time, as well as that of Group Commanders, has been required by Quarterly Review and Analysis. I have asked myself on several occasions if they are worth the time and effort which go into them. On balance, I am confident that the Review and Analysis is a worthwhile effort. Young officers can be trained in elements of analysis, projections, performance, cause and effect relationships and briefing techniques. Group Commanders are provided the opportunity to carefully study and examine the present status, problem areas and significant accomplishments of their commands. One problem area, which was solved, was the short suspense date for submission of the Command Progress Report to STRATCOM-PAC. The resulting extension permits what I consider to be a more comprehensive and meaningful Review and Analysis presentation. One continuing problem in the units is the recurring tendency to present incomplete and inadequate analysis and a failure to translate statistics into necessary actions. Command emphasis should continue to be stressed in this area.

D. (U) Management Information System (Brigade): The Brigade originally was organized with no automated management information system because it was to be supported by the USARV Data Service Center. This facility has become progressively less available due to other priority USARV projects. Since we have become responsible for the management of more than 20,000 people by MOS and name, hundreds of major communications-electronics equipment and items, and thousands of trunks

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and circuits, automation became imperative. Therefore, I directed the use of a contingency terminal asset at Long Binh for automatic data processing. Some 20 management programs have been developed to assist key managers and my use of this equipment was approved by Department of the Army. Future planning for the employment of a major communications headquarters most certainly should include provisions for an organic automatic data processing capability.

E. (U) Quality Assurance (Brigade): Increased command attention at all levels has improved and expanded the Brigade's Quality Assurance Program during the past year. The program is specifically designed to detect substandard conditions in the various communications systems and take necessary steps to prevent degradation or major failure. The program has proved to be an effective management tool to insure optimum utilization of assets for maximum customer satisfaction. I have appointed a field grade officer as my Special Assistant for Quality Assurance, and he works under the aegis of ACofS, Operations. Each of the six signal groups in Vietnam and Thailand have quality assurance teams and programs in effect. As our program has expanded and gained emphasis, every one of our communications sites has been examined periodically. Where complex problems have developed, quality assurance teams have been dispatched to assist in rapid resolution of the problem. This program should receive constant review and analysis to facilitate the implementation of new procedures and techniques to improve communications effectiveness.

VIII. Information Activities

A. (U) USARV Command Communications Pamphlet (USARV): The USARV Command Communications Pamphlet is published bimonthly to disseminate communications-electronics information, highlights of activities and summaries of lessons learned. Additionally, a feature article relates the story of communications development in the Republic of Vietnam by spotlighting a specific signal unit in each issue. This document serves as a valuable historical summary of communications-electronics activities in the Republic of Vietnam and as an informative reference for Signal Officers in the Republic of Vietnam and throughout the world. The pamphlet is now being distributed in 2,000 copies and favorable comments are continuously being received attesting to its value. This publication should be retained and continued command interest should be provided to insure a quality publication.

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B. (U) Information Program (Brigade): The Brigade has an active Command Information program, both formal and informal. A major problem has been our dispersion of Brigade personnel. As a result, it has been impossible for company commanders to reach all men in their company every week for a formal class. Thus, we have been forced to rely very heavily on printed material and informal meetings. "The Communicator", our newspaper, generally publishes one to two pages of Command Information every issue and we also send out many fact sheets. We have found that locally created material often is of much more pertinence than material coming from Department of the Army. As a result, we have had our information people produce as much material as they can and also have given wide distribution to MACV and USARV material. We have done everything possible to alleviate the lack of feeling of belonging that is inherent in our dispersion of men. A man on an isolated site often does not realize his role in the overall communications picture. So, we and our subordinate commanders make it a practice to hold informal meetings whenever we visit these sites and make them feel a part of the "team". We also have published an orientation brochure and a history of the Brigade which have been widely distributed and which let our soldiers know the importance of what they are doing. In telling our story to the folks back home, we have actively participated in the Hometown News Release program and have had an extremely high record of utilization. I would recommend, however, that the Center at Kansas City modify its "kill" policy as it pertains to the 20-day time limit. It has been our experience that local newspapers will use stories from Vietnam even if the event is more than 20 days old. Because of in-country mail lags and other factors, our stories are often more than 20 days old by the time they reach Kansas City.

IX. Concepts for Communications in Support of Field Operations

A. (U) Communications Support for Redeployments (USARV): To relieve the 9th Signal Battalion from responsibility for internal tactical communications during redeployment, these responsibilities were assumed by the 1st Signal Brigade. In addition, the Brigade was required to support the USARV Redeployment Control Center and a counterpart agency in the 9th Infantry Division headquarters with point-to-point voice and teletypewriter circuits to four major aerial ports, Saigon's Newport and Schofield Barracks, Hawaii. This proved to be a very effective means of

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assisting the 9th Infantry Division. These lessons learned were applied to the 1st Infantry Division redeployment. The smooth transition from active combat communications to those required during the standdown of the division's organic capability are illustrative of the responsiveness and flexibility of the 1st Signal Brigade operated Corps Area Communications System coupled with careful detailed planning by the USARV Communications-Electronics staff.

B. (U) Operation SEALORDS (USARV): The Navy has established several support bases in the Mekong Delta for its Operation SEALORDS (Southeast Asia Lakes, Ocean and Rivers Delta Strategy). Each of these bases has a requirement for a secure teletypewriter circuit to Cam Ranh Bay and a sole user voice circuit to Binh Thuy. The 1st Signal Brigade presently operates six systems in support of SEALORDS and I have made an agreement with COMNAVFORV that the Brigade would take over other systems operated by the Marine Corps. We suggested that the Marine equipment would be left in place on a temporary loan. This will involve four in place systems now operating and the possibility of four more new advanced bases with their radio systems. The additional equipment will be provided from the US Navy's "Stripped Ships" program. The 1st Signal Brigade would retain operation and maintenance responsibility while the US Navy would retain ownership. Since SEALORDS eventually will be a Vietnamese Navy responsibility, we intend to turn these systems over to the Vietnamese as soon as possible.

C. (C) Signal Contingency Teams (Brigade): The 972d Signal Battalion, which was our contingency force under USARV tasking, was redeployed in December 1969 as a part of Presidential withdrawals. Our solution, as promulgated in OPLAN 84-70, was to establish separate, small contingency teams within the 2nd, 12th and 21st Signal Groups. Each of these three teams is capable of being deployed within 24 hours and has the capability of establishing or augmenting a tactical command post communications-electronics complex or restoring a damaged or destroyed tactical communications site. Thus far, even with the continued force reduction planning and the accent on economic use of people and equipment, we have maintained these teams. However, as the Brigade undergoes further reductions there may be difficulties in meeting the requirements of this operation plan.

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X. Security Aspects of Communications

A. (C-NF) Automatic Secure Voice Communications (USARV):

Phase I of the automatic secure voice communications system for the Republic of Vietnam was completed during my tenure and is in good working order. There will be changes, as in any other telephone system, as troops redeploy and units shift. Our experience has shown that there were problems which could and should have been anticipated. The system was not backed up with sufficient spare parts for both the equipment and the transportable air conditioners and, therefore, some subscriber activations were delayed. Float items should have been programmed in the original installation to insure responsiveness of service. Transportable van configurations were issued without prime movers or power generators and it should not have been assumed that these items would be otherwise available. The problem of personnel has been particularly vexing since the terminals are not TOE items and in many cases the equipment was in the field before the training base was prepared to support it.

B. (U) NESTOR Program (USARV): A survey and analysis of NESTOR secure voice equipment utilization was conducted in mid-1969. Usage factors indicated only a 52%, 45% and 53% utilization of issued KY-8s (fixed), KY-28s (air) and KY-38s (mobile), respectively. It was discovered in subsequent monthly status reports that there were significant and varied problems.

1. Nonavailability of KY-8 installation kits, special cables and certain component items.
2. Shortages of AN/PRC-77 radios and VRC-12/KY-38 interfacing cables.
3. Lack of various aircraft installation kits, component items and security criteria was defeating the KY-28 utilization and retrofit program because of battle loss and aircraft retrograde.
4. A general reluctance to use the NESTOR equipment due to weight and misconceptions of security requirements, integrity and operational value of the equipment.
5. A secure retransmit capability was not available.

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Special Handling Required
Not Releasable to Foreign
Nationals

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As these problems became known, I launched an intensive program to upgrade utilization. Command emphasis was placed on it by messages from both COMUSMACV and Deputy Commanding General USARV. It was a subject of much discussion at each USARV Signal Officers Conference. We organized and sent a demonstration team out to the field. Coordination was effected with everyone concerned to obtain the parts and components we needed, and the HYL-3 Regenerative Repeaters were put into the hands of those units with an extended frequency modulation communications requirement. Our utilization factors have now been boosted to 90%, 79% and 83% for the KY-8, KY-28 and KY-38. These substantial advances are indicative of the trend toward realizing our goal of completely securing tactical frequency modulated radio communications.

C. (C) CIRCE Wheel Code (USARV): KAC-Q low level numeral and authentication codes used throughout the command are bulky, easily torn in inclement weather and time consuming to use. Subordinate units also were prone to use unauthorized low level codes. Negotiations with the National Security Agency were launched early in 1969 to produce a more durable, easily read and quickly used code patterned after an Air Force wheel code. In June, the National Security Agency developed a test edition. CINCPAC accepted the test edition and directed CINCPACFLT to conduct a joint operational test. Copies were furnished USARV Communications-Electronics for examination prior to the test and it was noted that the device was too large to fit in a fatigue jacket pocket and that the paper portion of the wheel code was exposed to weather. In addition, it was believed that the wheel would not hold up under field use. The National Security Agency was advised that revision was not considered necessary prior to the test. During the period 15 August to 15 September 1969, the device was tested by the Americal Division and 1/5th Infantry Division, under the control of the III Marine Amphibious Force. It was concluded that the wheel code:

1. Has greater user appeal and will discourage use of unauthorized codes.
2. Is superior to the old KAC-Q in ease of operation and durability.
3. The size of the wheel backing should be made as small as possible so that it would fit in a fatigue jacket pocket.

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4. Nonglare plastic covering should be provided to protect the paper portion of the code from inclement weather and rough usage.

On 15 January 1970, CINCUSARPAC requested USARV's requirements for the new wheel code. Based on information in his message, CINCUSARPAC was advised that our requirements would be a one-for-one replacement of current KAC-Q codes compartmented by user unit. The Air Force and Navy submitted their requirements based on Corps Tactical Zone compartmentation. Since the two methods are not compatible, COMUSMACV asked us to reconsider so that we could communicate with the Navy and Air Force. We demurred because of the large volume of Army user units and because we believed the security of a Corps Tactical Zone compartmented code would be jeopardized. The decision was made that the Army will continue to compartment by user unit, but that units having a requirement for interservice communications would also hold the Corps Tactical Zone codes. The new CIRCE wheel codes have arrived and we anticipate great things from them.

D. (U) COMSEC Logistic Support (Brigade): We are pleased that the overall status of COMSEC logistic support throughout the Republic of Vietnam is highly satisfactory. Virtually, 100 percent of the equipment in the hands of users is operational. Deadlined equipment at general support facilities averages only about one percent of total in-country assets. We consider it significant, however, that with the recent command emphasis on NESTOR equipment utilization by tactical units, there has been an increase of 30 percent in overall COMSEC maintenance work load since 1 December 1969. We expect this trend to level off at approximately 50 percent above last year's work load level. The increase has not had an impact on deadline nor is any anticipated. We believe that NESTOR will be more effectively utilized when we receive quantities of the HYL-3 repeater units in June 1970, under present plans. Thirty of these units are now in use and have received enthusiastic acceptance by field units as a means of extending operating range. We foresee no major problems or shortcomings in the use of this equipment.

XI. Selected Communications Operations

A. (C) Electronic Warfare (USARV): USARV has an active Electronic Warfare program and is accomplishing a significant amount

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of actions associated with it. Procedures for evaluating and reporting suspected hostile Meaconing, Interference, Jamming and Intrusion (MIJI) have been developed and distributed to all USARV commands. These reports are reviewed for accuracy and completeness and, if the situation warrants, immediate coordination is made with the affected units, MACV and the 509th Radio Research Group with the goal of quickly deploying resources to assist the affected units. In addition, USARV Communications-Electronics is providing the Air Force Special Communications Center additional information for analysis of MIJI incidents. These reports are also furnished to the Combat Development Command's Electronic Warfare Study Group and the Electronics Command liaison in the Republic of Vietnam for possible use in improving tactical radio resistance to electronic warfare. Friendly Electronic Order of Battle is prepared monthly and disseminated to all interested commands, including the PACOM ELINT Center at Fuchu, Japan. Electronic countermeasure (ECM) and electronic counter-countermeasure (ECCM) guidance has been provided to USARV commands and stressed repeatedly in publications and conferences. These publications have been completely reviewed and updated to reflect the new JCS electronic warfare policy. In all, no problems have developed in the field of electronic warfare and the command is prepared for all contingencies.

B. (U) Radio Frequency Interference (USARV): The dense radio population and relatively short supply of radio frequencies in the Republic of Vietnam has been a major problem. It becomes critical when many units operate in a limited geographic area. In allocating FM and VHF frequencies to the US, the Vietnamese armed forces retained approximately 50 percent of the spectrum for their use. This means that approximately 425 FM and 225 VHF frequencies are available for all US forces. HF, VHF and UHF for air-ground use, and radar frequencies, are assigned on a case-by-case basis. Frequency interference has been experienced in all bands for a number of reasons, most of which boil down to the problem of too few frequencies. We have taken several actions to manage the USARV allocations more effectively. These have achieved limited success. Control of FM frequencies has been delegated to the Field Force Commanders so that they can resolve and respond to interference problems more rapidly and, similarly, we have delegated VHF control to the Field Forces and the 1st Signal Brigade and authorized them to coordinate directly on problems. We also provide a printout of

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HF, VHF and UHF assigned frequencies, in frequency sequence, to all subordinate commands monthly. As for the problems concerning interference with other US or Free World Military Assistance Forces, we coordinate with the MACV Radio Frequency Interference Team. What is needed most, obviously, is an additional block of frequencies from the RVNAF.

C. (U) Military Affiliate Radio System (MARS) Program (USARV): The USARV MARS program of expansion was completed in October 1969. We now have a total of 47 MARS stations throughout the Republic of Vietnam, operating in seven nets. In a recent month, the monthly total of phone patches reached an all-time high of 42,325. Every American unit in Vietnam now has access to a MARS station. Phone patches for hospitalized personnel are given precedence over all but emergency traffic. MARS will, we hope, stay on the job until all US forces leave Vietnam.

D. (U) AB-216 Tower Management (USARV): During the first years of the Vietnam build up, in 1965 and 1966, the AB-216 tower was authorized and used only by units of the 1st Signal Brigade. However, as the divisional areas of operation were expanded, it became apparent that the distances between major headquarters was too great for unit antennas to provide dependable VHF and FM communications. The AB-216 tower became the logical replacement. They were a standard item of issue, available in limited quantities in-country and replacements could be requisitioned from CONUS. And they could be easily erected in building block style, from the basic 78-foot height up to a maximum of 204 feet.

Due to the increased demands and high unit cost, intensive management of the AB-216 tower was necessary. With increased utilization of the tower outside the 1st Signal Brigade, USARV Communications-Electronics took on the task as the controlling authority with the 1st Signal Brigade requisitioning and storing all tower assets.

This management procedure has resulted in an adequate quantity of tower components being maintained for emergency issue, replacement towers being issued on a timely basis, and each issue of a tower based on the tactical needs of the requesting unit.

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E. (U) In-Country Courier Service (USARV): There has been a vast improvement in the in-country courier service in the past year. Until September 1969, Army couriers had been required to ride regularly scheduled Air Force aircraft as passengers and were limited to 200 pounds of material. There was no agreement with 7th Air Force to guarantee space on flights for couriers. Time for delivery was, as a result, excessive. In July 1969, USARV asked MACV to task 7th Air Force to provide air courier service. MACV directed that we coordinate directly with 7th Air Force to resolve problems. We did so and the result was the institution of the SCATBACK service, dedicated flights for couriers, which has resolved the courier problems entirely.

F. (U) Reduction of Long Haul Dedicated Circuits (USARV): A significant amount of the channel capacity of the long haul system is taken up by dedicated circuits. A good many are valid requirements but a great many are hangovers from the days when they were justified by the inadequacy of common user record and voice service. We are operating on three fronts to reduce the number of dedicated circuits. First, users are periodically required to rejustify their requirements. Second, requests for new circuits are most closely scrutinized and, third, a continuing effort is made to improve common user service. Examples of the latter are the completion of the Southeast Asia Automatic Telephone System, expansion of automatic digital network service, elimination of dual homing of manual telephone exchanges, rehoming of manual exchanges based on common areas of interest and adjustments of secondary trunking between dial telephone exchanges based on user traffic surveys. Our efforts are, quite naturally, confined to Army subscribers, although we have made considerable overtures to MACV and Defense Communications Agency - Southeast Asia Mainland to take similar actions with other subscribers. It is a most difficult problem, one which needs considerable command emphasis at the highest levels on a continuing basis.

G. (U) Outages on Long Haul Dedicated Circuits (Brigade): A comparison of outage times between circuits that are carried strictly on 1st Signal Brigade paths and those which interface with other agencies shows me that the latter category of circuits invariably have longer outages. An analysis of this phenomenon does not necessarily indicate a severe shortage of qualified personnel in other than Brigade units. Conversely, I am convinced that the problem is more a matter of coordination.

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Although I am sure that all circuits in this category experience the same difficulty at one time or another, the situation becomes more critical when dedicated circuits are involved. As an example, there are a number of MACV critical circuits which interface with component systems in the Da Nang area. One circuit with a high restoration priority was out for a total of 10 hours. Most of that time was consumed in coordinating with the components to check cable pairs and with our Brigade unit to check their terminal instrument. It turned out that the reason for outage was a personnel error at the component tactical operations center where a cable pair was inadvertently disconnected from the frame while working on another circuit. There are many examples each day. Increased command emphasis on coordination must be made by MACV and the components to expedite cross service outages.

XII. Equipment Highlights

A. (U) Second Generation, High-Capacity Army Area Communications System (AACOMS) Equipment (USARV): The second generation, high-capacity AACOMS equipment is in Vietnam and good results should be expected. Our problems with it have been very similar to those encountered with practically every new piece of equipment procured down through the years. Repair parts have not been issued with the equipment and they were shipped to the depot instead of the maintenance units. I really have nothing new to offer in this area. I can only recommend that, somehow, repair parts and ancillary equipment be packaged right with the equipment and remain with the equipment until it gets to operating and maintenance elements.

B. (U) Airborne Radio Relay (USARV): The 1st Signal Brigade is tasked to provide 300 hours per month of airborne radio relay for tactical units. Previously, the Brigade used the single-engine Otter aircraft with the ARC-121 radio console. The aircraft were old and difficult to maintain; the radio was extremely heavy and did not have secure voice retransmission capability. A request was submitted to replace the Otters with the twin-engine U21 and an ENSURE request was made for an improved radio. Thus far, six new Ute aircraft have been received and equipped with the new ARC-149 console, with three more aircraft to be similarly fitted in the near future. Recent tests have provided a 140 nautical mile link at an altitude of only 3,500 feet, and the entire system is most satisfactory. The cost of radio relay is,

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however, exorbitant. Each equipped aircraft costs \$300,000 and operating costs of \$153 an hour suggest an operation and maintenance cost of approximately \$50,000 per month multiplied by the number of aircraft required for continuous coverage.

C. (U) Operation and Maintenance of Power Generators (Brigade): During the early months of 1969, the Brigade was experiencing between 2,000 and 2,500 minutes of communications outages per month which was directly attributable to power generators. We then launched an intensive management program. Commanders were required to forward letters of explanation of all outages which exceeded twenty minutes. The Brigade, in turn, consolidated the reports which pertained to support by the contractor, Pacific Architects and Engineers, and forwarded them to the US Army Engineer Command Vietnam, the contract supervisor. This method constantly called to the attention of the responsible agencies the critical importance of power for communications sites. In similar fashion, we brought increased command emphasis to bear on unit power generator performance. These efforts have resulted in considerably reduced communications outages due to power. In a recent month, we have had less than 500 minutes of outage time for the entire Brigade throughout Vietnam.

XIII. Record Communications

A. (U) Automatic Digital Network (AUTODIN) (USARV): The automatic digital network in Vietnam was established in Vietnam with 100-line automatic switching centers (ASCs) located in Nha Trang and Phu Lam. In the latter part of 1968, this network was designed with terminals capable of supporting increased hostilities as well as to provide the high speed trunking between a series of manual torn tape teletype relays serving low volume subscribers. To provide AUTODIN terminal facilities earlier than could be expected under existing schedules, government owned and leased substituted configurations were installed in Vietnam to serve major headquarters.

With the total message traffic processed in Vietnam declining as troop redeployment began in late 1969, it was apparent that a critical review of scheduled AUTODIN terminal installations would have to be undertaken. The completed review indicated that current requirements were quite different than the original ones of 1968.

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In December 1969, recommendations were forwarded to CINCPAC-USARPAC to provide an AUTODIN to support current and projected requirements. This plan provided for high capacity terminals at five of the six manual teletype relays with dual low speed terminals at the sixth relay. All major tactical units as well as Corps Senior Advisors will be served by an AUTODIN terminal. All logistical complexes, data facilities, and major headquarters will be supported by high speed terminals. Because previous 1968 planning was based on projected growth as opposed to the 1969 basis of decreasing requirements, USARPAC was able to cancel terminal validations costing in excess of one million dollars plus \$35,000 monthly for leases on circuits.

In the future, I believe that planning for an AUTODIN record communications system in a military assistance environment should include substantial transportable equipment to provide the flexibility and responsiveness that such a situation demands. Only long term residual facilities and those requiring the highest capacity terminals should be considered for fixed installation. Since the procurement lead time for terminal installation is significant, planning during the build up of forces should include sufficient contingency assets to provide later flexibility for unplanned requirements.

The implementation by the Defense Communications Agency - Southeast Asia Mainland of the AUTODIN Subscriber Activation Working Group (ASAWG) with representation from all Vietnam Military Departments provided monthly coordination of problems and plans. This type of working level organization is highly conducive to operation and management of a joint system network.

I also believe there could be improvements in the assignment and training of personnel to work in AUTODIN facilities. To provide a CONUS rotation base for AUTODIN-trained personnel, an overseas type automatic switching center should be activated in CONUS or provision made to integrate Army personnel into current CONUS switches. This would help to alleviate the disproportionate percentage of overseas assignments which AUTODIN-trained personnel currently receive. In addition, I believe that management of these personnel should be centralized at an appropriate agency similar to the satellite personnel management system. This would facilitate by name assignment of these personnel

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to fulfill world-wide requirements and eliminate the misassignments currently experienced.

B. (U) Consolidation/Integration of Communications Centers and Message Centers (USARV): We have made some progress in responding to the Department of Defense and Department of the Army guidance on consolidation and integration of Signal Corps communications centers and Adjutant General message centers. We have completely eliminated the dedicated communications centers which served the Army Support Command headquarters at Qui Nhon, Da Nang and Cam Ranh Bay, and 1st Logistical Command headquarters at Long Binh. These activities are now served by the common user teletypewriter network. We are now in the process of consolidating the USARV headquarters centers. The final result will be a telecommunications center operated by a unit of the 1st Signal Brigade with staff supervision by USARV Communications-Electronics. The consolidation will pave the way for installation of the Automated Message Processing System-Basic in the next phase and concurrently result in the desired objectives of savings in personnel and equipment and elimination of duplication of effort in logging and filing.

C. (U) Automation of Telecommunications Centers (USARV): Although the possibility now exists that the ongoing redeployment of US forces will have significant impact on our plans, we have done considerable research into automating the MACV and USARV headquarters telecommunications centers and procurement funds are now scheduled for the FY 72 budget. This is, of course, in consonance with the overall Department of Defense and Department of the Army conceptual goal of cost economy and reduction of writer-to-reader message handling time and operations.

D. (U) Record Communications Discipline (USARV): The efficiency of record communications traffic in the Republic of Vietnam is chronically handicapped by poor user discipline and lack of adequate command control which leads to serious uneconomical use of available resources. Specific problems are:

1. Abuse of the message precedence system to such an extent that immediate and priority traffic have become routine.

2. Failure to use mail and courier for information addressees.

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3. Unreasonably long high precedence messages. Six page flash and immediate messages are a common violation.

4. The "shotgun" approach on multiple addressee messages. Originators frequently address their traffic to commands which have no interest in the message.

5. Delay in picking up messages from supporting communications centers. It is not uncommon for traffic to sit in a center for four days. This problem occurs primarily at small detachments.

The message review boards specified by AR 105-10 are an excellent tool for supervision of record communications traffic. Precedence utilization guidelines should be developed to require justification for consistent use of high precedences. Subscribers also should be policed on abuses of multiple address messages and failure to use mail or courier.

XIV. Telephone Service

A. (U) Command and Control Emergency Action Console Telephone System (USARV): Standards of service provided by the emergency action console system have remained at a consistently high level with the exception of operator service. Since the day-to-day responsibilities of a console operator brings him into continual contact with command level officers a program had to be established to use only the most qualified individuals as operators. This program should continue to receive emphasis.

The original problems of establishing a prescribed load list and specific maintenance responsibilities for the emergency action console have been resolved. Line trunk adapters and touch tone multi-frequency units previously nonavailable are now available and changes of terminal service equipment are taking place with MACV subscribers receiving priority. To further improve service, a review should be instituted by MACV and USARV to eliminate noncommand control circuit subscribers to the maximum extent possible. Consideration should also be given to the establishment of classes of service for all emergency action console subscribers by separation of subscribers into the categories of command and control, administrative and logistic support.

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B. (U) Southeast Asia Automatic Telephone System (USARV):
The Southeast Asia Automatic Telephone System (SEA-ATS) was completed in December 1969, with the activation of the tandem switch at Pleiku, the last of nine to be installed under the program. With Pleiku's completion, long distance direct dialing became a reality for all Class A telephone subscribers in Southeast Asia even though there are still a few refinements underway.

Experience so far, however, has shown the system to have subscriber acceptance with few problems.

A management organization called the Joint Cutover Integrated Working Group (JCIWG) was set up to coordinate and direct the installation and cutover of each tandem switch. The Joint Cutover Integrated Working Group had representation from the Army, Air Force, Defense Communications Agency - Southeast Asia Mainland, Ground Electronic Engineering Installation Agency (GEEIA), and a commercial contractor. The overall coordination which the Joint Cutover Integrated Working Group gave to the project resulted in a smooth transition to the tandem switch system and I recommend that installation of any future tandem network be managed by an organization such as the Joint Cutover Integrated Working Group.

Two problems have arisen with the direct dialing system, but I believe we have been able to solve them here. First, we found it was necessary to initiate an education program to acquaint personnel with peculiarities of the system such as the need to dial neither too rapidly nor too slowly. We are also educating personnel in the proper use of the phone book and its detailed outline of how to place calls through the tandem switch.

The second problem has been an overload of the tandem switch which I feel is due to a much too liberal allocation of Class A telephones. The percentage of Class A telephones is now 30% and action has been taken to reduce Class A service to 20%.

So far, we have had no particular problem with the operation and the maintenance of the automatic switch, although the real test will come after the maintenance contract expires and all work is done by military personnel.

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To control the use of the telephone system, a selective monitoring program was established by MACV Directive 105-1. Objectives of the program are to insure that only official business is conducted over the phones, that all calls are made as expeditiously as possible and that classified information is not discussed.

Selective monitoring was established in August 1969, and has been an effective tool in communications management. All dial telephone exchanges are required to conduct monitoring and a report of violations is submitted to the Brigade monthly. In addition, whenever a violation is noted, the monitor breaks in on the call and points out what the users are doing wrong. An example of the effectiveness of the program can be found for calls monitored during the period 15 December 1969 to 15 January 1970. During that time, 29,049 calls were monitored. Of that number, there were 2,132 personal calls, 508 calls with vulgar language, 26 calls with the wrong precedence violations and seven other violations. A total of 47 of these calls had to be electrically disconnected because the violators refused to clear the line when challenged.

The overall management of the entire Army telephone network is through the Brigade's Telephone Management Agency (TELMA) which provides guidance and supervision to the program. The 1st Signal Brigade operates 29 dial telephone exchanges in Southeast Asia ranging in size from a 100-line switchboard at Nha Be to the huge 5,000-line exchange at Long Binh. The Brigade is also responsible for the management of three of the nine tandem switches and publishes the US Government Agencies Vietnam Telephone Directory.

The only major problem found with the dial telephone exchanges was the lack of proper test equipment which resulted in poor service and extensive outages. To solve this, we initiated more Class IV projects for test equipment. At all levels, we encouraged aggressive action to obtain the equipment. In addition, a commercial contract to install extra test equipment helped to alleviate this problem.

The only remaining major projects for the full development of the Southeast Asia Telephone System is the secondary trunking package to provide trunking between dial telephone exchanges within each tandem switch area.

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C. (U) Development of Automatic Voice Network (AUTOVON) (Brigade): Implementation of the overseas AUTOVON program has been accomplished in three phases. During the first phase, only four of the scheduled seven circuits into RVN were activated because of water damage to some of the interface equipment and lack of coordination. We directed the Brigade project officer to attend all meetings related to Phase II and III so that we could avoid the problems which arose during Phase I. We also assisted in the formation of a joint Army-Air Force test team to correct the "hot levels" and other problems encountered earlier. As a result of the considerably improved coordination, 32 circuits were activated in the second phase and one in the third phase, as scheduled. Because of the lack of effective initiative or sufficient management drive, we have found it necessary to constantly push to keep the project on target. We believe the Brigade will require an aggressive management capability for projects of this nature in the future.

D. (U) Telephone Directory (Brigade): MACV Directive 105-5 tasks the Brigade to publish a semi-annual telephone directory for all US government agencies in RVN. The directive establishes guidelines and requirements which have resulted in a six month cycle for each edition of the directory. The cycle begins with preparation of verification packets for each subscriber, containing an automatic data processing printout of his telephone listings, a letter of explanation and a letter of transmittal for returning updated printouts to the Southeast Asia Telephone Management Agency. Updating is concluded four days prior to the scheduled arrival of the directory draft at the printing plant in the Philippines. Printing and proofreading normally take about 30 days. The 45,000 directories are then distributed to the users by the Brigade elements for dissemination. The weak link in this entire cycle historically has been in obtaining accurate data from subscribers. They have been late in returning their verifications or have not returned them at all. Our solution in the latest edition, February 1970, was to conduct a tremendous publicity campaign over AFVN, AFVN-TV and through printed media. As a result, this edition was the best and most accurate to date. This publicity program should not only be continued but expanded.

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XV. Audio-Visual Operations

(U) Audio-Visual Operations (USARV): USARV and Department of the Army record photographic documentation was not being accomplished consistent with the resources available to the command. I directed more emphasis be placed in this area. The Southeast Asia Pictorial Center (SEAPC) was reorganized to expedite the handling and shipping of record material. Signal officers, photo officers and information officers were contacted by SEAPC in an effort to improve both the quantity and quality of output. As a result, our output and acceptance by Department of the Army greatly improved. The following statistics are representative:

	<u>1 Jan 68 - 30 Jun 69</u>	<u>1 Jul 69 - 30 Dec 69</u>
Negatives forwarded to DA	3,371	7,306
Percentage accepted by DA	17%	51%
Motion picture footage forwarded	213,200 feet	213,900 feet

Efficient operations have been impaired by personnel problems. The Signal School does not teach maintenance and operation of cameras, automated laboratory processing equipment and 16mm projectors used in the Republic of Vietnam. Nor is color transparency and print processing taught. These skills are being taught solely by on-the-job-training. Recommendations for MOS training improvement have been forwarded to both CONARC and the Signal School at Fort Monmouth, New Jersey.

XVI. 1st Signal Brigade Items

A. Engineering and Installation

1. (U) Class IV Projects: Although the rate of installation of Class IV projects has declined throughout my period of command, a large number were installed and others are in the installation and approval stages. One of our biggest problems in this area is anticipating the changes in requirements because of US troop withdrawals and Vietnamization. Planning is quite difficult because of the propensity to hold withdrawal plans closely. As a general rule, there will be a decaying rate of major project implementation but, concurrently, there

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will be a necessity for many specialized engineering actions to adapt to whatever situations develop. We are most interested in maintaining our principal agency for such actions, the Communications Systems Engineering and Management Agency.

2. (U) Operation of the Cable Yard: A Class IV Signal Project Storage Site, commonly referred to as the "cable yard", is operated by our Communications Systems Engineering and Management Agency. The facilities include 270,000 square feet of asphalt hardstand and four buildings constructed in 1969. Two of these are covered storage buildings with open sides, one is a closed warehouse used completely for inside storage and the remaining building is a combination warehouse and office. Other equipment storage sites have been phased out and the remnants consolidated at this new facility. The cable yard receiver, sorts, and accounts for fixed plant telecommunications material, primarily consisting of bill of material items for Class IV or local projects which are held in claimant accounts. In addition, the supply officer also has custody of all nontactical multipair cable (25 pair and above) in the Army supply system in the Republic of Vietnam. To provide rapid response and insure the availability and condition of cable for priority projects, storage is provided for a considerable quantity of this cable normally stored and issued by the Long Binh Depot. Storage includes preparation and shipment of outgoing project materials, pickup and delivery of incoming material and action to trace missing cargo. A long range program is also in progress to test and re-reel cable wound on deteriorated wooden reels. This cable is being re-reeled on steel reels. The reaction time necessary to handle cable installation tasks in response to combat requirements has been greatly improved by this facility. I feel it should be continued for the foreseeable future.

3. (U) Engineer Construction Support: The Brigade has had a tremendous construction program, a large portion of it by contractors. It appears likely that future construction, if any, will be done by the Corps of Engineers. I believe, therefore, that a specially communications-electronics trained engineer construction battalion should be organized in the Army structure. I am informed that the Office of the Chief of Engineers is presently studying modernization of its units. Communications-electronics requirements most certainly should be

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considered in base development planning and all communications-electronics staff and communications-electronics line officers must insure that they participate in the session. Additionally, specialized power, air conditioning, and electrical wiring installation organizations must be provided to the communications-electronics community during the build up phase of any operation and continued during the operation phases. The USARV Engineer and I have processed papers to Department of the Army with recommendations to implement such a program in the future.

4. (U) Cable Engineering: The 1st Signal Brigade installed about 800 miles of cable during 1969, much of it replacing cable which was damaged by enemy activity or failed because of water seepage. Our experience in cable installation has repeatedly reflected the requirement to harden or semi-harden cable to the greatest degree possible. We found it necessary to put most cable underground because of damage resulting from shrapnel and small arms fire in combat. To adequately protect cable plants, the 1st Signal Brigade has been required to provide considerable assistance to tactical units. However, several problems were created by the installation of such cables, mainly due to the short period of time given for installation, improper or incomplete bonding practices and improper splicing and sealing of underground splice cases. This assistance to tactical units also increased the Brigade's responsibility for rehabilitation and repair of cable in the event of damage. In addition, certain areas were provided a more complex and permanent system of cable distribution in the form of underground manhole and duct systems. They were justified by the need to get aerial cables protected from shrapnel or small arms damage and, in major headquarters and population centers, to handle the number of multipair cables which were too heavy for poles to support. It was determined that splices would be pedestal mounted whenever possible to allow interconnect of cable pairs above the ground to preclude water seepage and damage caused by improper splice case installation.

As a result, we have incorporated into our cable engineering two principles of operations:

- a. Rehabilitation of cable will be performed wherever feasible

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instead of replacement. In most cases, rehabilitation can be accomplished for one-tenth to one-fourth the cost of replacement, with equally good results. Rehabilitation is to take place, wherever possible, during the dry season.

b. Quality assurance and acceptance criteria have been upgraded to within the realm of commercial installation standards and we have directed improvements in the outside plant prescribed load lists of both the operation and maintenance and construction units.

5. (U) The Flexibility of Integrated Communications System - Southeast Asia Assets: The Integrated Communications System in Southeast Asia consists of 54 sites in Vietnam and 34 sites in Thailand. The multiplex scheme of the Integrated Communications System - Southeast Asia was based on a plan of projected troop deployments developed in 1964. The expected troop deployment did not take place as planned and approximately 10,000 channel ends of the Integrated Communications System - Southeast Asia were not in locations where they were needed most. Project MARV (Multiplex Assets Rearrangement, Vietnam), which began in February 1969 and ended in May 1969, was the rearrangement of Integrated Communications System - Southeast Asia assets to relocate channel ends where they were most needed. As a result of the project, using in-house engineering and installation resources rather than resorting to increased contractor costs, the 1st Signal Brigade managed to save over one million dollars. As troops continue to redeploy throughout Vietnam, multiplex and technical control equipment assets of the Integrated Communications System - Southeast Asia require further rearrangement. Currently, the 1st Signal Brigade is developing a system of computer programs to minimize the multiplex assets engineering efforts required for future group level rearrangements in both Vietnam and Thailand.

The Integrated Communications System was designed to be a flexible system responsive to the fluid requirements of Vietnam with the constant shifting of troop concentrations. We envision that an important future requirement will be to "thicken" certain existing links as troop redeployments become more concentrated. This will involve primarily a transfer of multiplex channel and group equipment and technical control equipment from vacated locations to the expanded sites. However, to accomplish

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such an upgrade, higher numbered super group equipment will be required for the multiplex, as well as radio frequency modification kits to expand the tropospheric scatter channel capacity.

B. Logistics

1. (U) Area Maintenance and Supply Facilities: Another problem in the support of fixed communications-electronics equipments is now much closer to solution with the activation of Area Maintenance and Supply Facilities in Bangkok, Long Binh and Cam Ranh Bay. Fixed communications systems that were previously supported by contracts, ill-defined maintenance and supply channels, repair and return and closed loop programs are now supported from one facility for both general support and backup direct support. The Area Maintenance and Supply Facility has received one NCR-500 and another is programmed this summer to process requisitions and compute stockage. This automation will enhance the Area Maintenance and Supply Facility's effectiveness.

2. (U) Logistics: We have been concerned with the lack of a CONUS training base for military unit logisticians. The fact that we have staffed our CONUS depots and logistics staff positions throughout our major and subordinate command headquarters with civilians has created a serious problem and is the primary reason for the lack of trained military logisticians. This void is of critical concern here in Vietnam. The sophistication and complexity of the communications-electronics equipment requires a concomitant sophistication in the logistics effort. Somehow, we must reestablish a base in CONUS in which military technical supply and maintenance officers can attain and maintain proficiency. Many of our problems could have been avoided had this pool of manpower been available. As a result, our Group and Battalion commanders have had to function in this area much more than should have been necessary. They have had to establish "eyeball-to-eyeball" contact with their logistical support elements to assure proper follow-up on requisitions in their own units and in those of the support units when supply expertise was not available.

3. (U) Retrograde of Communications-Electronics Equipment: We are faced with two distinctly different problems in considering the

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retrograde of communications-electronics equipment. The first, the recovery of tactical gear, is routine since it will move with its owning unit. The second, the retrograde of fixed equipment, has received a great deal of attention. One of our initial problems was the STRATCOM requirement to conduct a detailed inventory of nonexpendable, STRATCOM-controlled assets. The guidance stated that all assets with Financial Inventory Account code GK9 were STRATCOM-controlled but this has not proven to be the case. Our Communications Assets Recovery Group, using a master card deck prepared by United States Army Communications Systems Agency from the original inventory of the Integrated Communications System - Southeast Asia, was forced to conduct a complete inventory of the Integrated Communications System and, later, other fixed equipment such as tandem switches, dial telephone exchanges and secure voice terminals. These inventories have been forwarded to higher headquarters. Because there are so many uncertainties about the residual communications system in RVN and Thailand, we have planned for every contingency and made known our packing and crating material requirements to the Logistical Command. These materials will be stockpiled pending firm decisions. An Electronics Command team has recommended that equipment be dismantled by military specialists with preservation, packaging and packing to be done by a contractor. The uncertainties have not allowed us to establish parameters for a contract, thus the initial recovery effort was an entirely military one and was very successful. We should also carefully analyze future plans for the equipment recovered. Unless an immediate requirement exists elsewhere, it will prove self-defeating in the long run to store and maintain equipment that is obsolescent. In my view we should attempt to recover every bit of excess equipment for which a need exists but should take a careful look at all other equipment before initiating recovery actions.

4. (U) Quick Repair and Return Program: Sacramento Army Depot has been swamped by abuses in the Quick Repair and Return Program. Within the Brigade we have put on strict controls to prevent unauthorized use of this most effective program. We have prepared lists of units which are authorized to participate and have forwarded these to Sacramento. This has helped, as has use of the "Jiffy Bag" for evacuation direct to the depot.

5. (U) Test Equipment and Calibration for Fixed Communications-Electronics Systems: Due to the heavy density of commercial, nonstandard

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test equipment used in our various fixed communications-electronics facilities, we recognized a need for a special support program for which 1st Logistical Command was not equipped at the time. Through a coordinated effort with 1st Logistical Command, USARPAC and USAECOM six calibration vans were procured to satisfy this requirement. The shelters are equipped to calibrate test and measuring equipments associated with tactical gear as well as that associated with nonstandard test equipment used in fixed communications-electronics facilities. 1st Logistical Command contracted with a commercial contractor to man the vans which are strategically located throughout RVN. They support the Integrated Communications System - Southeast Asia, automatic digital network, automatic secure voice communications and the Southeast Asia Automatic Telephone System tandem switches and dial telephone exchanges.

6. (U) Provisional Direct Support Units: During 1969, USARV approved a Brigade plan to activate 25 provisional direct support units. Because of the many company and battalion level maintenance facilities scattered throughout the Brigade, it was difficult to obtain repair parts due to the lack of separate supply codes for these parts. Requisitions had to be funneled to a 1st Logistical Command direct support unit and many parts and requisitions were lost, cancelled or misrouted. Now, with our own direct support units and their own stock accounts, our units have direct access to the 1st Logistical Command's supporting depots. This, needless to say, has resulted in more timely and effective logistics action.

7. (C) AN/TRC-97B Communications Systems: A preliminary survey of AN/TRC-97B communications systems indicated that they are operating below standards. Recognizing the system is Air Force peculiar and that Army technicians have limited knowledge of the equipment, that there is a shortage of test equipment and that modular repairs are supported through a Wholesale Interservice Support Agreement (WISSA) between the Army and Air Force, we requested and received CINCPACAF assistance to evaluate the 26 each AN/TRC-97B systems of this Brigade. At present the 1st Mobile Communications Group, Clark AFB has dispatched a team which will survey the AN/TRC-97B's to ascertain the extent of maintenance required to return the systems to their optimum technical specifications. Upon completion of the survey

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a decision will be made between the 1st Signal Brigade and CINCPACAF to determine the most expeditious and least costly method of returning the equipment to original technical specifications and status.

8. (C) AN/TRC-90B, AN/TRC-129 and AN/TRC-132 Systems:

A recent evaluation of AN/TRC-90B, AN/TRC-129 and AN/TRC 132 systems within the Brigade revealed they have been operational for a period of five years on a 24-hour day basis. Compounding this problem is the short one year tour of duty which precludes constant technical and operational capability. In addition a recent preliminary survey indicated the systems are sustaining electronic component deterioration. Recognizing the possible long range communications effects of marginal equipment that could possibly cause serious communications failures, we directed a survey of the AN/TRC-90B family to determine the extent of deterioration. At its completion a rehabilitation production line was initiated in Thailand to completely rework all of the equipment. The project is progressing very well.

C. Budgeting

1. (U) Programming: Development of a five-year program with the Department of Defense Five-Year Defense Program is accomplished at STRATCOM, US Army Communications Systems Agency and Army Materiel Command. Our budget is an annual OMA document. The staff does not program for PEMA or MCA requirements. MCA requirements are submitted on an annual or as-required basis to USARV. These MCA projections are made for one fiscal year only, by USARV direction, due to the present fluid combat situation. While the system is not perfect it is the best that can be achieved in combat.

2. (U) Funding: I have found no real problem in obtaining necessary funding support, however there is a tendency to underfund or limit the amount that can be requested at the beginning of the year. This leads to an almost continuous flow of reports and requests for additional funds. Although it ultimately satisfies the requirements, it causes a great deal of concern and work. I believe that a more realistic approach would be to increase the dollar guidance for budget submission to at least the experience data of the prior fiscal year.

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3. (U) Funding for Fixed Telecommunications Projects: Although the changing requirements for fixed telecommunications facilities in the Republic of Vietnam preclude an accurate statement of future funding requirements for these facilities, certain funding actions associated with future Class IV projects and locally approved tasks have been taken

a. Funding in the amount of \$173,900 to support Class IV projects has been requested via nontactical telecommunications requirements.

b. A request for allocation of \$1,200,000 from the USARV Command Operating Budget for FY 71 has been submitted for manhole and duct systems, cable splicing and trenching.

c. A request for \$150,000 has been made for an engineering services contract to prepare fixed telecommunications facilities plant-in-place records to be included in the FY 71 Brigade Command Operating Budget.

D. (U) Military Justice: Another problem arising from the dispersion of Brigade units throughout two countries is that of legal support. I have directed consolidation of Special and Summary Courts-Martial jurisdiction at group level whenever possible. Battalions and groups which are geographically distant from the Brigade headquarters have been attached to the nearest General Courts-Martial authority for Judge Advocate support. I have maintained a degree of control, however, by having my Judge Advocate make frequent visits to all Brigade jurisdictions and their supporting Judge Advocate offices. This has proven to be a less than ideal solution but I believe it is the best possible under the circumstances of dispersion in a combat area.

E. (C) Physical Security and Enemy Activity: In many instances, Brigade elements are housed on installations as tenants of a host unit. In these situations, they are usually responsible for a pro rata share of the installation defense and their physical security is accomplished under the supervision of the host unit. In the instances where our elements are totally isolated, they are, of course, responsible for their own physical security defense, with the assistance of our organic military police units. In preparation for the Tet seasons of 1969 and 1970, a vigorous and aggressive inspection program was conducted and was most effective. The results are reflected in our low personnel casualty and equipment damage rates as physical security in the

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Brigade is good and continues to improve. During the period of this report, there were 883 enemy-initiated activities affecting elements of the Brigade. The majority of these attacks were stand-off mortar and rocket attacks by fire. Casualties and equipment damage have not been extensive enough to impair the accomplishment of the Brigade mission. Twenty personnel were killed, and 150 wounded as a result of enemy activity. Various items of equipment have been lightly or heavily damaged and, in a few cases, destroyed. Cables have frequently been cut by shrapnel or damaged by small arms fire. These relatively limited numbers of casualties and equipment damage are attributable to a good active and passive physical security posture in the command throughout its sites.

END OF REPORT

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