AD NUMBER

AD827315

LIMITATION CHANGES

TO:

Approved for public release; distribution is unlimited.

FROM:

**Distribution authorized to U.S. Gov't. agencies and their contractors;
Administrative/Operational Use; 31 OCT 1967.
Other requests shall be referred to Assistant Chief Staff for Force Development, Attn: FOR-OT-RD, Washington, DC 20310.**

AUTHORITY

AGO D/A ltr, 29 Apr 1980

AD827315

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

IN REPLY REFER TO
AGAM-P (M) (9 Feb 68) FOR OT RD 674127 13 February 1968

SUBJECT: Operational Report - Lessons Learned, Headquarters, 459th Signal Battalion (CA), Period Ending 31 October 1967

TO: SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation by USACDC in accordance with paragraph 6f, AR 1-19 and by USCONARC in accordance with paragraph 6c and d, AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure appropriate benefits in the future from Lessons Learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
as

DISTRIBUTION:
Commanding Generals
US Continental Army Command
US Army Combat Developments Command
Commandants
US Army Command and General Staff College
US Army War College
US Army Air Defense School
US Army Armor School
US Army Artillery and Missile School
US Army Aviation School
US Army Chemical School
US Army Civil Affairs School
US Army Engineer School
US Army Infantry School
US Army Intelligence School
US Army Adjutant General School
US Army Missile and Munitions School
US Army Southeastern Signal School

Dept of Army Office of Asst Chief of Staff for Force Development FOR-OT-RD Wash. D.C. 20310

25

DEPARTMENT OF THE ARMY
HEADQUARTERS 459TH SIGNAL BATTALION (CA)
APO 96240

SCCWNG-NT 31 October 1967

SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEKAA)

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

SECTION I

Significant Organization or Unit Activities

1. General: a. The 459th Signal Battalion's area of communications responsibility has not changed since the last reporting period. However, with the assignment of the 518th Signal Company (RRUHF) on 8 August, the battalion was given the responsibility for command, operational, and technical control of all microwave communications facilities within the II Corps Tactical Zone.

b. To consolidate communications support of the Nha Trang area under the single manager concept, the Nha Trang Army Area Communications Center, formerly under staff supervision of the battalion operations section, and the Courier Section, formerly under Headquarters Company, were placed under the operational control of Company A, 459th Signal Battalion (CA).

c. The 213th Signal Detachment (CS), formerly attached to the 459th Signal Battalion (CA), was asigned to the 160th Signal Group, and attached to the battalion for rations and quarters only.

d. During the quarter, three radio teams were attached to the 459th Signal Battalion from the 69th Signal Battalion, in support of USMACV communication requirements for the Nha Trang area.

2. Activities: a. During the reporting period, the 459th Signal Battalion (CA) continued to provide area and base camp communications support to combat maneuver units, combat support units, and CORDS agencies deployed in the battalion's zone of responsibility.

b. During the period 13 September to 31 October 1967, the 459th Signal Battalion (CA) provided direct communications and logistics support to the 54th Signal Battalion, IFFV, and the 173d Airborne Brigade in the Tuy Hoa - Phu Hiep area.

SCCVNG-NT., 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEKAA)

c. The Battalion's Chaplain continued a civic action program of selling Montagnard artifacts, and returning the proceeds to tribes located in the vicinity of Dalat. Approximately 140,000 Piasters were returned to the tribes during the quarter.

d. The battalion contributed approximately 1700 gifts to Vietnamese children during the Mid-Autumn Festival celebrations. These gifts were procured through donations from the officers and men of the battalion, and consisted of toilet articles, candy, games, and toys.

e. The battalion continued to supply salvaged lumber and construction hardware to the 651st Signal Company, Army of the Republic of Vietnam, for the construction of a school and living quarters.

3. Personnel and Administration: During the latter part of the quarter, the battalion initiated action to realign assigned and attached units based on mission assignments of higher headquarters. This program of realignment of personnel, equipment, and responsibilities has gained maximum use of available battalion assets.

4. Security: a. During the reporting period, 16 TOP SECRET and 52 SECRET clearances were validated, and 59 CONFIDENTIAL clearances were granted. Cyrytographic access was authorized for 45 personnel. One SECRET clearance was suspended.

b. Defense plans were reviewed and updated to conform to the current situation, and a comprehensive program of improvement and relocation of defensive positions improved the physical security posture of all sites. Emphasis was placed on the construction of semi-permanent bunkers and revetments, i.e., the use of sandfilled 55 gallon fuel drums, to reduce the number of man hours expended in the replacement of sandbags.

c. The 228th Signal Company (RRVHF) constructed eight semi permanent perimeter bunkers on its site using 2 X 6 inch lumber as revetting material. Three guard towers, a main guard building, and two permanent command bunkers were also constructed. Approximately 2000 square meters of forest and bush were cleared to increase and improve fields of fire.

d. At the 261st Signal Company's Vung Ro Mountain Site, a command bunker and several perimeter bunkers were rebuilt through the joint efforts of US and ROK personnel. A field telephone, internal communications net, was installed to connect all US and ROK bunkers with the jointly manned command post. In addition, 2500 square meters of hardwood forest were cleared along the perimeter, significantly improving fields of fire and observation.

5. Safety: a. Command emphasis continues to be placed on all aspects of safety. The following recordable accidents and personal injuries occurred during the quarter:

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October (RCS CSFOR-65)(WCEKAA)

PERSONAL INJURIES	VEHICLE ACCIDENTS
6	5

b. Accident exposure for the quarter:

MONTH	MAN DAYS	MILEAGE
Aug	29,340	124,804
Sep	45,305	143,664
Oct	35,061	151,676
TOTAL FOR QUARTER:	109,706	420,144

6. Training: a. The majority of training in the battalion was on-the-job instruction conducted at section level. This type of training has been the most effective method of maintaining a cohesive program of mission essential training.

b. Cross training has been utilized, extensively, to enable individuals to perform related duties, i.e., VHF operators have been trained in carrier equipment operation, circuit controller procedures, etc.

c. Increased emphasis has been placed on the requisitioning of functionally trained personnel for special items of equipment. It is not possible, however, to completely satisfy personnel requirements in this manner due to the rapidly changing communication situation in Vietnam. Unprogrammed missions are frequently assigned without sufficient lead time to requisition and obtain the desired specialist.

d. The training program has been augmented by the use of locally produced extension courses and instruction booklets about principle items of equipment employed in the battalion. These courses are monitored by experienced non-commissioned officers at section level.

e. Physical training has been maintained through competitive athletic programs, participation in the construction of field fortifications, and in the construction of cantonment areas.

f. Formal instruction conducted by the 1st Signal Brigade was presented to one officer, and twenty-one enlisted men during the quarter. Personnel attended courses of instruction on the Technical Control Facility, AN/MSQ-73, the Radio Set AN/TRC-24, and the Radio Set AN/GRC-50.

g. A formal training program has been initiated for all company grade officers within the battalion. The course of instruction includes training in the operation and maintenance of major items of equipment utilized within the battalion and general subjects within the fields of administration, intelligence, and logistics. Each officer will receive 16 hours of instruction per month in this program.

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEKAA)

7. Operations: a. During the first week of August 1967, plans were implemented for the replacement of all existing VHF antenna supports with permanent H or V type frames. Due to the sandy soil and severe weather conditions encountered along the coast of Vietnam, conventional supports were found to be unstable and a potential safety hazard.

b. On 1 August 1967, a test was conducted, utilizing the low frequency bands (A and B) of an AN/TRC-24 System, between Nha Trang and Ninh Hoa to eliminate relays at Hon Tre Island. The test of this diffraction shot proved unsuccessful due to the size of the geographical mask located approximately half-way between Nha Trang and Ninh Hoa.

c. During the period 8-12 August 1967, three VHF systems utilizing Radio Set AN/TRC-24 were installed and tested for use in the Army Area Communications System. The first system was installed from Nha Trang to Ninh Hoa with a relay at Hon Tre Island; the second from Ninh Hoa to Phu Hiep with a relay at Vung Ro Mountain; and a third system from Phu Hiep to Vung Chua Mountain with a relay at Vung Ro Mountain. The systems utilized a filtering device developed by the U.S. Army Electronics Command. (The device permits the outputs of two AN/TCC-7 carrier terminals to be combined into one signal which can be transmitted over an AN/TRC-24 system.) These systems were to provide: an alternate route for high priority circuits channelized on existing systems, additional communications for combat and combat support units, and circuits for battalion control of existing DCA and Area Communications systems.

d. On 8 August 1967, the 518th Signal Company (RRUHF) was assigned to the battalion by authority of General Orders Number 21, Hq, 21st Signal Group.

e. On 9 August 1967, a Radio Set AN/TRC-24 was temporarily hand receipted to the Armed Forces Radio Network, Tuy Hoa Air Force Base, to provide interim FM broadcasting service to the Tuy Hoa area until fixed station equipment could be procured.

f. On 10 August 1967, the 459th Signal Battalion's radio teletype net commenced secure operations utilizing KW-7 crypto equipment. The net provides a rapid, secure means of communications for four subordinate units located at Nha Trang, Hon Tre Island, Ninh Hoa, and Phu Hiep.

g. During the period 10-13 August 1967, the headquarters element of the 518th Signal Company (RRUHF) displaced, in two phases, from Vung Tau to Nha Trang. The move of the company headquarters was necessary to centralize command operations, and logistical control of microwave facilities within the II CTZ. Phase I commenced on 10 August 1967, and included the shipment of 240 tons of supplies and equipment by LST. This phase was completed on 13 August 1967. Phase II, the transport of 80 personnel by aircraft which was completed on 12 August 1967. Full operational control of unit activities was established in Nha Trang 31 hours after the termination of unit operations at Vung Tau.

h. On 15 August 1967, a permanent antenna tower was completed at the Phu Hiep Signal Site. The tower consisted of three telephone poles, 60 feet in height, arranged in a triangle, and connected with sufficient braces to provide strength and to accommodate the installation of 24 VHF plane reflector antennas. Platforms were constructed at three levels to facilitate antenna installation, dipole changes, and performance of preventive maintenance on cables and antenna components. The transfer of antennas to the tower eliminated numerous guy wires and antenna supports which were unstable in the sandy soil of the area.

i. On 15 August 1967, General Orders Number 23, 21st Signal Group, attached three Field RATT Teams and one HF Radio Maintenance Support Team to the battalion, for all purposes less promotion authority. These teams were formerly assigned to the 69th Signal Battalion, and provide secure radio teletype communications for Headquarters, IFFV, Nha Trang, in the MACV Command Net; the MACV Air/Ground Net; and the MACV Ground Liaison Operations Net.

j. On 18 August 1967, the installation of an underground 200 pair cable in the Nha Trang Area, was completed from the U. S. Air Force Thunderbird Exchange, to Robert's Compound, a distance of approximately three kilometers. Due to existing underground power and communications cables in the area, it was necessary to hand dig the cable trench.

k. On 20 August 1967, construction of a helipad was completed at the Vung Ro Mountain Site. The helipad, located south of the main site, is capable of supporting helicopters of the CH47 Chinook Class, and should prove to be an asset during the monsoon season, if the site becomes inaccessible by road.

l. On 22 August 1967, an Army Area VHF system, designated BBH33, was activated from Nha Trang to Ninh Hoa with a relay at Hon Tre Island. The purpose of this system was to provide an alternate route of 24 carrier channels over one AN/TRC-24 radio system utilizing a filtering device. This system was deactivated on 25 August 1967 due to the assignment of a mission with a higher priority.

m. On 26 August 1967, a 12 channel Army Area VHF system designated BBH30 was activated from Phu Hiep to Vung Chua Mountain to provide additional communications for combat, combat support, and service units located in the Tuy Hoa and Qui Nhon Sub-Area Commands.

n. During the week of 23-29 August 1967, a 26 pair cable was installed, overhead, from the Hon Tre Island Switchboard to a central location within the compound of the 228th Signal Company (RRWHF), to eliminate the field wire installation in the unit's area.

o. On 29 August 1967, the 12 channel Army Area VHF System, designated BBH25, from Nha Trang to Cam Ranh Bay with a relay at Hon Tre Island, was reconfigured. The Hon Tre Island relay was redesignated a terminal, and with the addition of carrier equipment, provided Hon Tre subscribers with direct access to the U. S. Army "Goldfinch" DCO in Nha Trang.

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEKAA)

p. On 29 August 1967, a 12 channel Army Area VHF System, designated BBH26, was activated from Hon Tre Island to Cam Ranh Bay, to provide combat support units, located on Hon Tre Island, common-user access to the Cam Ranh Bay area.

q. On 31 August 1967, a 24 channel DCA U.S. Air Force, tropospheric scatter system, designated 77CTA4, was activated from Qui Nhon to Tuy Hoa Air Base, utilizing Radio Set AN/TRC-97A. The purpose of this system was to up-grade the reliability of communications between Tuy Hoa and Qui Nhon.

r. During August 1967, the 459th Signal Battalion (CA) was instrumental in the initiation of a project designed to eliminate numerous "spider webs" of overhead field wire and cable throughout the Nha Trang area. On 21 August 1967, the first project meeting was held at the 1879th Communications Squadron, Nha Trang Air Force Base, and was attended by representatives from all units with field wire or cable installed in Nha Trang. The objectives of the project were discussed, and route maps were requested. A second meeting was held on 31 August 1967, at which time all units agreed to initiate positive action to eliminate all excess field wire and cable in the Nha Trang Area.

s. On 3 September 1967, base power (commercial) was provided to the 261st Signal Company's communications site at Tuy Hoa Air Force Base by the installation of a 37.5 KVA transformer. Previously, this site was provided power by mobil and skid mounted tactical generators which became unstable after long periods of operation.

t. On 5 September 1967, a "pony" circuit was installed from the IFFV Communications Center to the radio terminal of the MACV Command Net located at the Goldfinch Site, Nha Trang. Prior to assignment of this mission to the 459th Signal Battalion (CA), traffic had been hand carried from Headquarters, IFFV, to the radio station, a distance of approximately three miles. Establishment of this circuit provided rapid, secure service to the subscriber, eliminated requirements for frequent motor courier service and reduced handling times.

u. On 8 September 1967, eight channels of the Army Area VHF system DBHØ6 were channelized to provide additional communications for the 100th Logistical Command, ROK, located in North Nha Trang, to the Goldfinch Site, Nha Trang. This system between North Nha Trang and Goldfinch will continue to be used as an alternate route for two DCA cable carrier systems, 77URC2, and 77URC3, servicing the same subscribers.

v. On 8 September 1967, terminal equipment of the tone pack designated 77UXH1, from Nha Trang Technical Control to Cam Ranh Bay Technical Control was changed from, AN/FGC-61 equipment to, AN/TCC-4 equipment. This change of equipment was due to the deactivation of the Control Facility, AN/TSC-45 located at Cam Ranh Bay, which contained the AN/FGC-61 equipment.

9

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEKMA)

w. On 10 September 1967, the 54th Signal Battalion established a test 12 channel VHF system from Nha Trang to Vung Chua Mountain, with relays at Hon Tre Island, and Vung Ro Mountain. Support rendered to the 54th Signal Battalion by the 459th Signal Battalion (CA) included rations and quarters at Hon Tre Island and Vung Ro Mountain, and the allocation of frequencies for the system.

x. During the period 13-20 September 1967, the 459th Signal Battalion was tasked by 21st Signal Group to provide communications support for tactical operations of the 173d Airborne Brigade in the Tuy Hoa - Phu Hiep area. Although the exact location of the Brigade CP, and routes of communication were not known during the initial planning phase, Headquarters, IFFV, established tentative guidelines for the required communications support. In accordance with preliminary plans, the 459th Signal Battalion activated a 12 channel Army Area VHF System (BBH38), from Tuy Hoa Air Force Base to Phu Hiep, and converted an existing 12 channel Army Area VHF System (BBH#6) - between Tuy Hoa Air Force Base and Phu Hiep - to 24 carrier channels, utilizing a filter device. These systems were activated to extend the additional channels of DCA microwave and tropo systems, terminated at Tuy Hoa Air Force Base, to a tactical tie-point at Phu Hiep. The 54th Signal Battalion, IFFV, was tasked to provide VHF systems from the tactical tie-point at Phu Hiep to elements of the 173d Airborne Brigade. Subsequent planning required additional systems, and the 459th Signal Battalion activated a 12 channel Army Area VHF system (BBH39) - between Tuy Hoa Air Force Base, and the 5th Battalion, 27th Artillery, located at Phu Hiep, for additional channels of communications. (Equipment to support this operation was drawn from the resources of companies at Nha Trang, Hon Tre Island, and Ninh Hoa.). When the geographical location of the CP, 173d Airborne Brigade was identified, the 459th Signal Battalion was given the additional task of providing the control terminals for two 12 channel Army Area VHF systems (BBH40 and BBH41), between Tuy Hoa Air Force Base, and the CP of the 173d Airborne Brigade located in Phu Hiep. (Personnel and equipment were not available from assets of the 54th Signal Battalion to provide the required service.) The 54th Signal Battalion was tasked to provide the terminals of these systems at the Brigade CP. Channelization of these systems was extremely difficult due to the number of units exercising control over portions of the circuit. Procedural policies for circuit and system installation and restoration, developed by the 1st Signal Brigade and utilized by the 459th Signal Battalion, were not followed by the 54th Signal Battalion nor the 173d Airborne Brigade which resulted in poor coordination between communications elements of each organization. Frequency problems were also encountered due to numerous U.S. Army and U.S. Air Force VHF systems operated in the Tuy Hoa - Phu Hiep area. In addition to maintaining existing DCA and Army Area systems in the Phu Hiep - Tuy Hoa area, the 261st Signal Company (Spt), of the 459th Signal Battalion provided over 115 mm hours of maintenance support, approximately 100 mm hours of supervisory assistance, rations, and quarters for advanced parties, and several replacement generators and items of communications equipment to the 54th Signal Battalion, and the 173d Airborne Brigade during the first seven day period.

y. On 15 September 1967, two fuel tanks, with total storage capacity of 11,600 gallons, were installed at Vung Ro Mountain Site to insure an adequate fuel supply for the site during periods of inaccessability caused by tactical or monsoon conditions.

z. On 21 September 1967, an Army Area half duplex, secure teletype circuit was established directly from the Nha Trang Army Area Communications Center (AACC) to the I Field Forces, Vietnam Communications Center to upgrade subscriber service. Previously, traffic from IFFV to the 5th Special Forces Group, Nha Trang, and to Dong Ba Thin was processed through the Nha Trang Major Relay, into the theater system. Since the AACC has direct routing to those terminals, the direct circuit eliminated excessive delays, and decreased the operational workload on the Major Relay.

aa. On 22 September 1967, representatives from the 459th Signal Battalion, and the 1879th Communications Squadron, attended a cable planning conference at the Signal Office, Army of the Republic of Vietnam, Saigon. The purpose of this meeting, was to promote closer understanding among communications agencies of both countries, and to coordinate future cable plans and projects in the Nha Trang area.

bb. On 23 September 1967, the 12 channel VHF system BBH39, from Tuy Hoa Air Force Base to the 5th Battalion, 27th Artillery, Phu Hiep II, was deactivated. This system was no longer required because a reroute capability by nettalic circuits proved to be more efficient and economical between the two combat commands.

cc. On 28 September 1967, drawings were received from the 1st Signal Brigade for installation of a 200 pair cable from Nha Trang to the North Nha Trang Site. This cable will eliminate two cable carrier systems, 77URC2 and 77URC3, and a 12 channel VHF system DBH36. Easement rights are presently being coordinated with local Vietnamese authorities.

dd. During September 1967, permanent antenna towers, utilizing telephone poles, were constructed at four signal sites within the 459th Signal Battalion's zone of responsibility. At Hon Tre Island, a rectangular tower, 50 feet in height, was completed with connecting platforms at two levels, to which 16 plane reflector antennas, oriented in three directions were attached. The tower completed at Duc My Site consisted of three poles, fifty foot in height, arranged in a "V" configuration, with a connecting platform, to which two plane reflector antennas were attached. Tuy Hoa AACV Site utilized a single pole, fifty feet in height, to provide two plane reflector antennas. Phu Hiep II Site also utilized a single, fifty foot pole to mount three plane reflector antennas.

ee. During the period 2-7 October 1967, the 45 channel DCA microwave system 77UM1T from Phu Cat to Vung Chua Mountain was deactivated. Equipment previously utilized for this system was moved to Qui Nhon, and a 45 channel DCA microwave system, 77UMX7, was established from Qui Nhon to Phu Cat.

ff. On 3 October 1967, the MACV Ground Liaison Operation Net, located at Tuy Hoa Air Force Base and operated by the 261st Signal Company (Spt), was transferred from a mobile van to a semi-permanent building.

gg. On 4 October 1967, five microwave radio RI teams, consisting of eight personnel each, were attached to the 459th Signal Battalion from the 337th Signal Company (RRUHF), to receive on-the-job training through the employment of two Army Area microwave systems, BBMØ1, and BBMØ2.

hh. On 7 October 1967, action was initiated by the 1879th Communications Squadron and the 459th Signal Battalion to grade Nha Trang telephone exchanges. A letter was distributed to all U.S. Army and U.S. Air Force subscribers, requesting justification for class A service.

ii. On 8 October 1967, all circuits previously routed over the Army Area cable carrier system BBCØ3 at Phu Hiep, were rerouted over the completed portion of the outside plant multipair cable from the Phu Hiep Army Airfield to the Phu Hiep Telephone Exchange. The system BBCØ3 was subsequently deactivated, allowing the recovery of spiral four cable.

jj. On 12 October 1967, 22 radio relay and carrier operators (MOS 31M) from the 459th Signal Battalion were attached to the 41st Signal Battalion for a period of 60 days, to replace personnel departing for CONUS.

kk. On 16 October 1967, the 518th Signal Company (RRUHF) activated a 23 channel Army Area microwave system, BBMØ2, from Cam Ranh Bay (Hill 184) to Pr'Line, relayed at Cam Ranh Bay (Hill 182), to provide communications support for IFFV.

ll. On 19 October 1967, the 261st Signal Company (Spt) received authority to hire local National personnel on a daily basis for construction of the Phu Hiep outside plant cable project (LOI 3-67). This action was necessary due to the shortage of military personnel, and the necessity of completing the project prior to the arrival of the monsoon season.

mm. On 20 October 1967, a new distribution frame was completed at the Goldfinch Site, Nha Trang. Previously, this frame consisted of four junction boxes JB-1077 in a pre-wired configuration. In comparison the new frame utilizes a system of horizontal and vertical terminating blocks, providing greater flexibility for circuit reroute.

nn. On 21 October 1967, the 518th Signal Company (RRUHF) activated a 23 channel Army Area microwave system, BBMØ1, from Nha Trang to Cam Ranh Bay, with a relay at Hon Tre Island, to provide communications support for IFFV. The Nha Trang terminal, of this system, was originally located and tested at Long Van. However, due to lack of real estate and adequate technical Control Facilities for Army Area circuits, the terminal was relocated to Camp John F. McDermott, Nha Trang. The relocation necessitated construction of a new microwave antenna tower, 120 foot in height, and a six section Jamesway Hut. Provisions were also made for commercial power at the new site.

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEKAA)

oo. On 22 October 1967, an Army Area Technical Control Facility, operated by Company A, 459th Signal Battalion, was established at Camp John F. McDermott utilizing a Communication Patch Panel, SB-675/MSC. All Army Area circuits terminating in Nha Trang will eventually be routed through this facility to provide adequate control and testing facilities in the Nha Trang area.

pp. On 23 October 1967, a daily air courier service in support of the II CTZ was established by Company A, 459th Signal Battalion with flight service provided by Air America. This service was established to support courier requirements of the Commission for Civil Operations and Revolutionary Development Support (CORDS) and sub-area commands within II CTZ.

qq. On 26 October 1967, a 45 channel, DCA controlled microwave system, 77UMV9, from Pr'Line to Phan Rang, was downgraded to a 23-channel system. The additional 23-channels were redesignated an Army Area system BBM03, in support of IFFV.

8. Logistics: a. Several self-help construction projects have been completed at Camp John F. McDermott at the battalion cantonment area: ten two-story wooden billets, six administrative quonset huts; four latrines; two showers; a battalion headquarters; a personnel office; an operations/intelligence office; and a logistics office. All construction with technical supervision from the 864th Engr Bn, was accomplished by personnel assigned, or attached to the 459th Signal Battalion.

b. The 228th Signal Company (RRVHF), Hon Tre Island, completed construction of ten 20-man barracks; an EM club; and the enlargement of the mess hall.

c. The 261st Signal Company (Spt) at Phu Hiep has completed construction of three wood frame barracks at Phu Hiep; and a mess hall, to accommodate sixty (60) personnal, has been completed at the Vung Ro Mountain Site.

d. The 518th Signal Company (RRUHF) completed construction of a 3000 square foot microwave operations building at Hon Tre Island, and a 2000 square foot microwave building is 50% complete at Tuy Hoa Air Force Base.

9. Aviation: None.

10. Organizational Structure: The existing structure of the battalion and the locations of its units are as follows:

a. Headquarters & Headquarters Company - Nha Trang.

b. Company A - Nha Trang.

c. Company B - Ninh Hoa.

d. 228th Signal Company (RR VHF) - Hon Tre Island.

e. 261st Signal Company (Spt) - Phu Hiep.

f. 518th Signal Company (RR UHF) - Nha Trang.

SECTION II

COMMANDER'S OBSERVATIONS AND RECOMMENDATIONS

Part 1, Observations (Lessons Learned)

1. Personnel:

Reenlistment

ITEM: Large units require a full time career counselor.

DISCUSSION: Large units experience difficulty in their efforts to maintain Department of the Army reenlistment standards. The program requires a minimum of one individual, on a full-time basis, to keep abreast of changes in applicable regulations, and to properly administer the program.

OBSERVATION: Organizations with over 1000 assigned personnel should be authorized a professional career counselor to properly interview, counsel, and process personnel for reenlistment.

2. Operations:

Color-Coding

ITEM: Identification of LD trunk groups is simplified by color-coding the identification strips located on each switchboards jack panel.

DISCUSSION: When a large number of trunks appear on a switchboard, the time consuming search for the appropriate trunk group can be eliminated by assigning different colors to each group. This is accomplished by inserting colored paper strips above each jack section marked with the circuit designator. The trunk groups are cross-referenced by color on the operators information panel at the top of each switchboard position.

OBSERVATION: Color-coding of trunk groups is an effective means of reducing operator handling time by providing immediate identification of trunk groups.

Cleaning of Contacts

ITEM: Cleaning relay contacts in the AN/TCC-28 Dial Central Office with brushes is not effective.

DISCUSSION: Attempts to remove dust from relay contacts in the Dial Central Office AN/TCC-28, with ordinary bristle brushes is not effective. Brushes do not clean the contacts thoroughly, and may leave bristles in the contact points causing additional service deficiencies.

OBSERVATION: Relay contacts in the AN/TCC-28 should be cleaned with solvent #8446, General Machine Products Corporation, or equivalent.

Overheated 45 KW Generators

ITEM: Improper operation of cooling vents on 45 KW generators.

DISCUSSION: Tactical 45 KW generators are equipped with air vents which open automatically when the generator is started, or when cooling is required. Often, these vents do not operate properly, or they are closed manually by inexperienced operators. Prolonged operation of the generator with the vents closed will cause overheating.

OBSERVATION: Proper operation of cooling vents should be included as part of the preventive maintenance, pre-operational checklists, and when performing ESC checks on this equipment.

Connecting Blocks

ITEM: Connecting blocks of dial or manual central offices must be inspected carefully after soldering of jumper wires.

DISCUSSION: Frequently, if a protective cloth is not utilized, drops of solder may inadvertently connect two terminals, causing a ring-ground, short-circuit, or similar problem.

OBSERVATION: Thorough examination of connecting blocks in the immediate vicinity of soldering work, and careful soldering techniques will reduce frame derived outages.

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEXXA)

Power Cable Nomenclature

ITEM: Nomenclature differences for power cable utilized with Radio Set, AN/TRC-29 has caused confusion in the identification in accordance with technical manuals.

DISCUSSION: Two power cables, CX 2440, FSN 5995-173-8840, and CX 2442U, FSN 5995-173-8280, which are utilized with Radio Set AN/TRC-29 were found to have identical electrical properties. Differences in nomenclature are to identify lengths, and the quantity of hocks included with the basic item.

OBSERVATION: Power cables - 2440, and - 2442 can be utilized interchangeably with Radio Set, AN/TRC-29.

Transmission Line Installation

ITEM: Unacceptable signal and noise readings were obtained on a microwave system.

DISCUSSION: Low signal levels, high noise readings, and antenna-transmitter imbalance occurred when a microwave system was terminated. After a lengthy period of testing, it was found that the transmission line feeding the antenna was located too close to the base of the tower, causing excessive inductive signal loss and a change of impedance on the feed line. The bottom launcher was moved further away from the tower base which caused an increase in signal to noise ratio, and a balanced antenna-transmitter impedance.

OBSERVATION: Although the transmission line of microwave systems must be installed as close to the vertical as possible, care must be exercised to locate the transmission line at least 5 feet away from the steel tower or from any metal object paralleling the transmission line.

Cable Records

ITEM: Cable records must be frequently up-dated to insure that the paths of circuits installed are properly identified on the cable record.

DISCUSSION: Multi-pair cables connecting two or more main or intermediary distribution frames experience changes which are often made by one frame without notifying the inter-linking frames. As a result, cable records maintained by the central office technician will not agree. Cable records must be frequently validated by direct comparison with the records of all other frames utilizing the same multi-pair cable.

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65)(WCEKAA)

OBSERVATION: Accurate, current cable records must be maintained through close coordination between frames using the same milti-pair cable.

Antenna Towers

ITEM: Antenna elements, masts and guy wires furnished with tactical VHF radio equipment, AN/TRC-24, are not satisfactory for extended operations.

DISCUSSION: Along the eastern coast of Vietnam, weather conditions, corrosion, and sandy soil are the principle elements affecting antennas and guy wires. Towers constructed of telephone poles, anchored in concrete, and connected with cross-members and platforms at various levels, provide a stable device for mounting antennas. Maintenance of reflectors and dipoles can be accomplished without system outage, and space is economically utilized.

OBSERVATION: In Vietnam, if extended periods of operations with tactical equipment is required, the maximum use of wood material should be employed. Semi-permanent wooden towers provide a stable and efficient means of mounting antennas for periods in excess of six months.

3. Training and Organization:

Extension Courses

ITEM: Locally produced extension courses in technical areas are effective training devices.

DICSUSSION: Extension courses compiled by technically qualified personnel, completely familiar with local operating conditions in Vietnam, have been very successful in training personnel located on isolated sites in the operation and maintenance of specific items of communications equipment. Two general types of courses are utilized: an information booklet which requires the completion of an objective type, graded examination based on the material presented; and a course which requires completion of practical exercises, supervised by the non-commissioned officers, and utilizing spare equipment.

OBSERVATION: Locally produced extension courses, carefully prepared by qualified technicians, can be a very effective method of training personnel located on isolated sites.

MTOE

ITEM: Effectiveness of an MTOE is reduced considerably due to excessive time required to secure approval.

DISCUSSION: A minimum of six months is presently required for approval of MTOE's. Due to the rapid, continuous change of communications requirements in RVN, several missions may be assigned which require additional personnel and equipment during the period between submission and approval of MTOE's. Since changes cannot be made

to an MTOE prior to its final approval, authorization for personnel and equipment required for these newly assigned missions cannot be requested until four to six months after the mission is assigned. Final authorization is not received until one year after the mission assignment, due to the time required for approval.

OBSERVATION: MTOE's are not responsive to the needs of the commander. It does not provide the commander the appropriate authorization for personnel and equipment, when the mission is assigned. A TDA augmentation would be the most effective management tool in providing flexibility.

4. Intelligence: None

5. Logistics:

Radiator Insulator

ITEM: The radiator insulator on the M151, one quarter ton vehicle has a tendency to crack and break.

DISCUSSION: Heat, moisture, and rough roads in Vietnam cause the radiator insulator on the M151 vehicle to crack and break. The insulator is made of hard rubber and does not last for more than a few months. The insulator is difficult to obtain through regular supply channels and without it, the vehicle should not be operated. A substitute for this insulator can be fabricated from shock absorber bushings used on trailer shock absorbers.

OBSERVATION: To preclude needless deadline time on the M151 vehicle, trailer shock absorber bushings may be used as a tempory substitute for rubber radiator insulators.

Master Cylinder

ITEM: Brake fluid in vehicle master cylinders will evaporate as a result of extreme heat.

DISCUSSION: Inspections have revealed that master cylinder fluid levels are frequently very low, due to evaporation in extreme heat.

OBSERVATION: Master cylinders must be checked daily for leaks and proper fluid levels to preclude the failure of breaking systems.

Secondary Fuel Filter

ITEM: Secondary fuel filters must be drained properly.

DISCUSSION: When the primary fuel filter on a diesel or multi-fuel engine contains large amounts of water or dirt, the secondary fuel filter should also be completely drained.

OBSERVATION: Failure to drain secondary fuel filter when primary fuel filters contain excessive dirt or water will cause engine damage.

Clutch Wear

ITEM: Excessive clutch wear has been noted on vehicles protected with sandbags.

DISCUSSION: Excessive clutch wear, particularly on Truck 3/4 ton, has been experienced due to the reduction of free movement between the floor and the clutch pedal caused by the improper placement of sandbags on vehicle floors as protection against mines.

OBSERVATION: Careful placement of sandbags near the clutch pedal will reduce a drivers tendency to "ride the clutch", reducing excessive wear.

6. Other:

Drainage

ITEM: Proper drainage of shower and mess facilities in sandy soil.

DISCUSSION: An effective drainage sump can be constructed by placing numerous 55 gal drums, pierced in several places, in an excavation approximately 40 X 40 X 20 feet in depth. A drain pipe with several holes for drainage into the drums is laid on the barrels, the drums and pipe are covered with tin or roofing material, and the excavation is then filled.

OBSERVATION: Although adequate drainage is difficult in sandy soil, effective systems can be constructed.

Perimeter Lighting

ITEM: Availability of flood lights FSN 6230-299-7072 through normal channels.

DISCUSSION: As a tempory measure, nose cones from napalm bombs, used with standard light bulbs and covered with plastic to keep rain water from breaking the bulbs, make effective reflectors.

OBSERVATION: Nose cones from napalm bombs can be used effectively as perimeter light reflectors as a tempory measure.

SCCVNG-NT 31 October 1967
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65) (WCEKAA)

Bunker Construction

ITEM: Construction of fortifications with semi-permanent type materials.

DISCUSSION: The extreme weather conditions along the Coast of the Republic of Vietnam cause sandbags to deteriorate rapidly, often requiring the re-construction of entire fortifications. The use of 55 gallon drums filled with sand and dirt, and wooden or metal reveting materials has greatly reduced maintenance requirements. In areas where sufficient drainage is available, defensive positions should be placed in the ground a minimum of four feet, eliminating the requirement for extensive reveting material and providing greater protection.

OBSERVATION: Defensive bunkers should be dug into the ground wherever possible, and the use of semi-permanent type reveting materials is effective in reducing fortification maintenance.

SECTION II

COMMANDER'S OBSERVATION AND RECOMMENDATIONS

Part 2, Recommendations (Lessons Learned)

1. Personnel: None.

2. Operations: Communications support for combat operations must be thoroughly planned and coordinated with participating organizations. To facilitate planning and coordination of communications in support of a specific operation, an Area Communications Commander should be designated to act as the single manager to establish, maintain and coordinate all command communications policies in support of the operations. This form of management will ultimately improve communications for the commander in the field.

3. Training and Organization: None.

4. Intelligence: None.

5. Logistics: None.

6. Other: None

CHARLES J. NORRIS
LTC, SigC
Commanding

17

21

SCCVNG (31 Oct 67) 1st Ind
SUBJECT: Operational Report for Quarterly Period Ending 31 October 1967, from Headquarters, 459th Signal Battalion (CA)(RCS CSFOR-65) (WCEKTO)

HEADQUARTERS, 21ST SIGNAL GROUP, APO 96240 23 November 1967

THRU: Commanding General, 1st Signal Brigade (USASTRATCOM), ATTN: SCCVOP, APO 96384

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

1. Transmitted herewith is one (1) copy , Headquarters, 459th Signal Battalion Report, Subject: Same as above.

2. Concur in the Commander's observations and recommendations with the following comments and/or exceptions:

a. Reference SECTION II, PART 1, para 1:

Item: Reenlistment. A full time counselor at Battalion level is desirable and will have a positive effect on the reenlistment program. Having professional services available at this level will assist the individual soldier in obtaining accurate information about options, benefits, and obligations to serve as a firm base on which to make a reenlistment.

b. Reference SECTION II, PART 1, para 2:

Item: Color-Coding. The color coding procedures suggested is a satisfactory means of speeding the selection of trunks. It should not, however, be relied upon to the exclusion of standard labeling. New operators would be hindered by the color code unless the label is also present.

c. Reference SECTION II, PART 1, para 2:

Item: Connecting Blocks. In addition to careless soldering practices mentioned here, cold solder joints and unsoldered joints are other common faults which must be avoided in communications wiring procedures.

d. Reference SECTION II, PART 2, para 2: The recently published 21st Signal Group Regulation 10-1, Sub-Area Communications Commanders Authority, directs that all personnel attachments made within 21st Signal Group in excess of 30 days be for the purpose of rations, quarters, supply, administrative support (less matters pertaining to transfer and promotions), UCMJ

SCCVNG (31 Oct 67)
SUBJECT: Operational Report for Quarterly Period Ending 31 October 1967, from Headquarters, 459th Signal Battalion (CA) (RCS CSFOR-65) (WCEKTO)

jurisdiction, non-technical training, pay and operational control. This will provide the single manager needed to provide the necessary communications.

3. This report is considered adequate.

Charles H Burr Jr

CHARLES H. BURR JR.
COL, SigC
Commanding

23

SCCVCP (31 Oct 67) 2nd Ind
SUBJECT: Operational Report for Quarterly Period Ending 31 October 1967, from Headquarters, 459th Signal Battalion (CA) (RCS CSFOR-65) (WCEKTQ)

DA, HQ, 1st Sig Bde (USASTRATCOM), APO SF 96384 5 DEC 1967

TO: Commanding General, United States Army Vietnam, ATTN: GPOP-OT, APO 96375
Commanding General, United States Army Strategic Communications Command, ATTN: SCCOP, Fort Huachuca, Arizona 85613

1. Subject report is forwarded for your information.

2. Concur in the Commander's observations. The following additional comments are provided with respect to Sect II, Part 1, (Observations):

a. Item: Large units require a full-time career counselor, page 11.

(1) At the present time the standard of grade authorization in AR 611-201 does not authorize a full-time career counselor below brigade level. It is anticipated that a forthcoming change to AR 611-201 will alleviate this problem by authorizing a full-time career counselor at group and battalion level.

(2) 1st Signal Brigade Regulation 601-201 (Personnel Procurement) has been recently sent to the field, and there is a full-time professional career counselor at this headquarters to assist unit reenlistment personnel on matters pertaining to reenlistments.

b. Item: Cable records must be frequently up-dated to insure that the paths of circuits installed are properly identified on the cable record, page 13. In addition, centralized cable records maintained at dial central offices will include all cross connects required to establish the cable path to the subscribers.

c. Item: Effectiveness of an MTOE is reduced considerably due to excessive time required to secure approval, page 14. TDA augmentations for added missions, particularly for fixed plant type facilities, would greatly reduce the time required for authorization of personnel and equipment. At this time, this headquarters is conducting a study to determine which existing facilities lend themselves to TDA type organizations. However, it is not considered feasible to prepare these documents until the TAADS up-date is complete.

d. Item: Secondary fuel filters must be drained properly, page 15. When large quantities of water or impurities are formed in the primary fuel filter of the 2½ or 5 ton multi-fuel engine, the primary filter elements must be thoroughly cleaned and the secondary and final fuel filter elements replaced.

SCNOP (31 Oct 67) 2nd Ind 5 DEC 1967
SUBJECT: Operational Report for Quarterly Period Ending 31 October 1967 from Headquarters, 459th Signal Battalion (CA) (RCS CSFOR-65) (U)

3. Concur in the Commander's recommendation. The following additional comments are provided with respect to Section II, Part 2, para 2, page 17 (Operations): 1st Signal Brigade Regulation 10-10, dated 14 July 1967, Communication Area, Sub Area, and Site Commanders, directs that a communication area commander will be designated and so appointed on special orders by this headquarters.

FOR THE COMMANDER:

THOMAS D. BLEDSOE, JR.
Colonel, GS
Chief of Staff

25

AVHGC-DST (31 Oct 67) 3d Ind
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 (RCS CSFOR-65) (WCEKAA)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96375 10 JAN 1968

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

1. This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 October 1967 from Headquarters, 459th Signal Battalion (CA), (CEKA) as indorsed.

2. Pertinent comment follows: Reference item concerning full time career counselor, page 11, paragraph 1. The establishment of full time career counselor positions at battalion and comparable level would greatly enhance the reenlistment effort throughout the Army. However, it must be recognized that approval of battalion career counselor spaces by DA would require an additional 262 personnel throughout USARV. Since USARV is required to operate under a troop ceiling imposed by the Secretary of Defense and because of the pressing demand for additional combat and combat support units, the diversion of 262 spaces for this program is not feasible at this time. Implementation of this program on a limited basis would be possible if the USARV force structure ceiling were raised.

3. A copy of this indorsement will be furnished to the reporting unit through channels.

FOR THE COMMANDER:

JOHN V. GETCHELL
Captain, AGC
Assistant Adjutant General

cy furn:
HQ, 1st Sig Bde (USASTRATCOM)
HQ, 459th Sig Bn (CA)

26

GPOP-DT(31 Oct 67) 4th Ind
SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 from HQ, 459th Sig Bn (UIC: WCEKAA) (RCS CSFOR-65)

HQ, US ARMY, PACIFIC, APO San Francisco 96558 19 JAN 1968

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

This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

K. F. OSBOURN
MAJ, AGC
Asst AG

UNCLASSIFIED
Security Classification

27

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author)	2a. REPORT SECURITY CLASSIFICATION
OACSFOR, DA, Washington, D.C. 20310	Unclassified
	2b. GROUP

3. REPORT TITLE

Operational Report - Lessons Learned, Headquarters, 459th Signal Battalion (CA)

4. DESCRIPTIVE NOTES (Type of report and inclusive dates)

Experiences of unit engaged in counterinsurgency operations, 1 Aug - 31 Oct 1967

5. AUTHOR(S) (First name, middle initial, last name)

CO, 459th Signal Battalion (CA)

6. REPORT DATE	7a. TOTAL NO. OF PAGES	7b. NO. OF REFS
31 October 1967	24	

8a. CONTRACT OR GRANT NO.	9a. ORIGINATOR'S REPORT NUMBER(S)
b. PROJECT NO. N/A	674127
c.	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)
d.	

10. DISTRIBUTION STATEMENT

11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY
N/A	OACSFOR, DA, Washington, D.C. 20310

13. ABSTRACT

24

DD FORM 1 NOV 68 1473

UNCLASSIFIED
Security Classification