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DON VI' 600
by Gary Bright

Don Vi' 600 was the national cryptographic depot and maintenance facility for the Republic of Vietnam (RVN) Army, Navy, and Air Force. From 1966 through 1973, their facility was located adjacent to the U.S. Forces "Hotel 3" helicopter landing area at Tan Son Nhut Air Base. In 1973, the facility was moved to the area previously occupied by the Air Force Command Operations Center adjacent to the Armed Forces Courier Service (ARFCOS) vault. Commanding officer of the unit throughout its existance was RVN Army Major Thran Ly'. Major Ly' currently resides in Augusta, Georgia.

The unit was provided logistic and technical support through the Military Assistance Command - Vietnam (MACV-V). The specific U.S. Army unit supporting the facility was the Field Army Issuing Office (FAIO) from 1966-69, when the name was changed to Theater COMSEC Logistic Support Center-Vietnam (TCLSC-V). At the same time a COMSEC Logistic Support Center (CLSU) was established to directly support Don Vi' 600. This CLSU had a Warrant Officer commander and was staffed by enlisted COMSEC equipment repairmen. Their mission was to provide operator, general, and depot level maintenance training to ARVN technicians and also provide an interface between the U.S. COMSEC logistic system and the RVN COMSEC logistic system. Training was also provided in the use and control of COMSEC material. This program was titled the COMSEC Assistance Program-Vietnam (CAP-V) and classified Confidential NOFORN.

The COMSEC accounting system for RVN forces was developed in 1968 by three U.S. Signal Corps Warrant Officers, CWO F. Portillo, CWO Figerora, and CWO Bright. The system was primarily based on the then AR 380 and AR 380-41. These documents concerned the physical security and accounting methods for U.S. COMSEC materials. There were many changes to the basic U.S. documents making certain areas more stringent in the accountability while relaxing some factors in the users of the material. As there were RVN unique areas in COMSEC matters, these were specifically addressed.

After the withdrawal of U.S. forces from Vietnam, support was provided by a three-man team assigned to the MAC-V and located in the same compound as previously housing the full blown MAC-V effort. This team consisted of two civilians and one senior army warrant officer. The warrant officer from 1972-74 was CW4 F. Portillo. From 1974-final days it was CW4 M. Morgan. Logistic support for equipment, repair parts, and even office supplies was provided through Threater COMSEC Logistic Support Center-Pacific (TCLSC-PAC) located at Fort Kamehameha, Hawaii.

Funds for the project were provded from the National Security Agency, to Dept. of Defense, to Dept. of Army, to Army Communications Command, to 5th Signal Command, to the TCLSC-PAC. The Chief, Inventory Control Center (ICC), CWO Bright, was the project manager from 1973 until the project terminated.

Personnel assigned to Don Vi' 600 were hand picked through the ARVN Signal Officer on the General Staff. Requirements for assignment included being: proficient in learning mechanical skills or bookkeeping skills, trustworthy and able to speak or learn to speak English. Major LY' commanded the unit with an extremely firm hand. Persons committing or being suspected of committing breaches of security or stealing were immediately shipped to a front-line combat unit that was experiencing heavy losses. The moral of the unit was extremely high and the soldiers assigned maintained high levels of proficiency within their areas. They were aware that they were members of an elite unit and did receive better promotions and other "perks" for job performance. All maintenance and accounting functions were meticulously accomplished in accordance with directives and procedures. Strict accountability was maintained for the life of all COMSEC software and equipments. The "need-to-know" principles were stringently enforced within the unit.

In 1970, a decision was made to provide the RVN forces with limited quantities of FM Secure Voice equipment (NESTOR, TSEC/ KY-8). Only operator maintenance was provided and strict warnings not to open the equipment were given. It is felt though that the equipment was opened and examined by the repair personnel. There is not any hard proof of this, however, knowing the competence and curosity of the repair persons, it is felt that they probably did examine the interior of the machines.

In late 1974 and early 1975, the military situation in South Vietnam did not look good. It was decided to slowly retrograde some of the equipments used by the RVN forces back to CONUS or Hawaii. Delicate political moves were made to keep from offending the RVN general staff and a slow movement was begun. Then in January-February, it was determined that the situation was becoming critical and a stepped up effort was begun to remove material more rapidly to Don Vi' 600 for movement to CONUS. In the last three weeks of the existance of the Republic of Vietnam, some 700 pieces of ADONIS and NESTOR equipment had been gathered and prepared for shipment to CONUS. Unfortunately, none of this equipment was shipped or destroyed. None of the facility or its contents were destroyed. It was estimated that enough keying material and codes were abandoned for 12 months full operation of the on-line, off-line, and low-level codes in country.

COMSEC EQUIPMENT

The equipment, other than NESTOR, that was provided for use by the Vietnamese was considered obsolete by U.S. standards. This did not mean that the systems were any less secure than more modern U.S. used materials. Machine off-line systems used were the ADONIS. TSEC/KL-7 with ancillary HL-1B and the M-209 non-electrical mechanical system. On-line teletype systems were PYTHON using the HW-10 and HW-19 provided through the USAF. There were varying degrees of one-time pad, voice authentication and low-level operations codes. One DIANA one-time pad system was used by the ARVN general staff for privacy messages.

As the equipment was obsolete by U.S. standards, it was necessary to establish special classes for U.S. cryptorepairers being assigned to the support unit. They had to learn how to repair the equipment in order to teach the RVN personnel, operator, general, and depot level maintenance procedures. Warrant Officer commanders were assigned based on their knowledge of the equipments and ability to work with the RVN forces.

When the TSEC/KY-8 NESTOR equipment was provided, approximately 200 equipments were allowed to the RVN forces. Of this, 30 pieces were assigned to the RVNAF, 50 to RVNNAV, and the rest to the ARVN forces. Most of the items were used in high level command nets and other sensitive areas.

USE OF COMESC MACHINE AND NON-MACHINE SYSTEMS

As in the U.S. forces, there were RVN units that maintained excellent levels of TRANSEC and cryptosecurity and those other units that did not bother to use the codes, cipers, and machine crypto systems that were available. However, the emphasis on security paced by the RVN high command did produce high levels of TRANSEC/cryptosecurity. Much more so than in the U.S. forces in Vietnam. On a scale of 1 - 10, the RVN forces would place about 8½ - 9. The U.S. forces, with much more easily operated and automated cryptographic materials, would rate much lower. There will be much flak on that, but, it is factual.

When using FM communications, high levels of use of operations codes by platoon/company/battalion units was experienced. It is recognized that in the heat of a firefight there were times when the codes were not used and unsecured voice transmissions were made. The majority of RVN units used good TRANSEC procedures. They did not talk unnecessarily on the radios, kept the transmissions to a minimum, varied time of transmissions, changed callsigns and frequencies when they should have.

The M-209 and KL-7 were extensively used. Few transmissions were made over the air except in the Long Lines communications sytems. Extreme care was made to ensure the systems and message indicators on any system used were not compromised. Off-line operators were extremely proficient in the use of the M-209 and KL-7 systems. Correct check decrypt procedures before transmission were stringently observed. The compromise rate of message/system indicators or effective editions of COMSEC software were less than one tenth of one percent. An enviable record when it is considered that approximately 700 KL-7's were in use 24 hours a day, seven days a week. The ARVN major relay station at Bein Hoa Air Base processed an average of 1300 encrypted messages per day. The M-209 was initially used down through the platoon level. However, it was found that this was too cumbersome for use in operations of this size. When low-level operations codes became available, the M-209 was then moved to the company/battalion level. The KL-7 was used at battalion or regimental level and above. The M-209 was used in aircraft with some success. However, the pilots were not convinced that it was necessary to use the device. Therefore, it was also replaced with low level codes in about 1969.

Use of the automatic on-line system PYTHON was extensively used in long haul communications. Approximately 85-90 percent of all teletype communications was secured using this equipment. Through the use of this sytem, most vital communications were actually super-encrypted. The general rule for RVN communications required that all operational communications were to be encrypted using some form of code. In practice, however, this was probably only accomplished some 80-90 percent of the time.

Those units having the NESTOR equipment performed very well. They were not permitted to speak in the clear and observed all TRANSEC procedures, talk only when necessary, make it short and be secure.

Although all of the equipment, other than NESTOR, being used by the RVN forces was from fifteen to thirty years old, it held up well even in the heat, dust, and rain. The depot maintenance at Don Vi' 600 was able to repair 98 percent of the equipment that was returned to it for repair. Only when there were items that were almost completely destroyed were they unable to repair them. Several machines were returned to TCLSC-PAC for investigation that had been deliberately destroyed because of the possibility of capture by enemy forces. The destruction of the devices was such that it would have been almost impossible to determine what the machine was or how it was operated.

The major factor in the success of the cryptosecurity/ TRANSEC within the RVN forces was the emphasis placed upon it by the general staff and then down through the chain of command. Penalties for non-compliance were severe and swift.

COMSEC TRAINING

While all maintenance training was held at Don Vi' 600, the use of the off-line machine systems and low level code systems training was normally accomplished at a major headquarters. Cadre training was performed at Don Vi' 600 under the supervision of the U.S. personnel. Visits were made to the various COMSEC accounts to inspect and review the training and compliance with security and accounting procedures. Units were directed to send the most qualified person to Don Vi' 600 to receive the cadre training. Spot checks of the capabilities and interest of the students indicated that high-caliber personnel had been selected. It should be noted that when personnel were selected for this training, they were aware that this would make them special, probably increase their chances for promotion and even possibly keep them out of combat. They also knew that if they came and failed the course, most likely they would become a point man for a rifle team.

SUMMARY

After the fall of the Republic of Vietnam, MG Smith, CMAC-V, stated that the only assistance program to the RVN that was successful was the CAP-V program. The initiation, establishment, and support of the program was excellent. As a general rule, RVN cryptosecurity/TRANSEC was extremely good. In fact, better than for most U.S. forces. The control and use of low-level operational codes was widespread and most effective. The machine systems were well used. While the equipment provided may have been obsolete by U.S. forces standards, its effective use coupled with COMSEC and TRANSEC provided extremely secure communications for the RVN forces at all levels. The time, effort, and material spent in the COMSEC support by the U.S. government was more than justified.