(U) Remembering the Lessons of the Vietnam War

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(U) Although American cryptologists were involved in the Vietnam War more than thirty years ago, their recollections are pertinent to the cryptologists of today. In the current war on terrorism, operations security (OPSEC) and communications security (COMSEC), or information assurance as it is called today, are just as vital to success as they were during the Vietnam War. This article outlines the background of the OPSEC and COMSEC problems faced by U.S. forces in Vietnam. The recollections of the various participants illustrate the complexities involved in trying to solve these problems. Let us hope that the mistakes made in Vietnam can be avoided in the current conflicts.

(U) Christmas Day in 1969 was a memorable occasion for U.S. cryptologists involved with the Vietnam War. As part of Operation Touchdown, the U.S. First Infantry Division was on a sweep of Binh Duong Province near Saigon. They stumbled upon a North Vietnamese COMINT unit. They captured twelve of the eighteen people in the unit, 2,000 documents, and the unit's intercept equipment. It was the COMINT find of the war!

(U) The captured material confirmed an earlier NSA assessment that the most lucrative source of intelligence for the North Vietnamese was American communications, especially unenciphered tactical voice. Why were U.S. communications so insecure? How did the U.S. try to correct these problems?

(U) There were numerous reasons for the lack of COMSEC during the Vietnam War. Some reasons fall under the category of general characteristics of the military, while others were derived from the cryptologic community itself. U.S. military services had a long tradition of communicating in plain language. It was difficult to break this tradition, especially because COMSEC methods required additional time, trouble, and expense.

(U) A second reason for difficulties in COMSEC enforcement was lack of emphasis by field commanders. Frequently, the tactical commander received no training in COMSEC before going to South Vietnam. It was difficult to communicate the importance of COMSEC to a commander who was trying to survive in the battlefield environment.

(U) Communicators devised their own cryptosystems because they found the approved systems too cumbersome and too time consuming. They did not recognize the insecurities in their homemade systems. Commanders could have prevented communicators from becoming amateur cryptographers if they had had the will to do it.

(U) The policy of one-year tours in South Vietnam for military personnel was another major obstacle to COMSEC. By the time communicators finally learned good COMSEC practices, they were on their way to another location. The services had a similar problem in maintaining trained COMSEC personnel in South Vietnam.

(U) Some of the major problems within the cryptologic community that led to poor COMSEC were the role of analysts and relations with allies. Since COMSEC analysts had merely an advisory role, commanders were able to accept or reject the recommendations of COMSEC analysts. Sometimes commanders paid lip service to the analysts, but took no action. Other times commanders ignored COMSEC personnel. Sometimes commanders understood the weak-

nesses in their COMSEC, but could not make changes due to the complexity of an operation. For instance, all personnel were familiar with the procedures for calling for rescue help from helicopters. Maintaining the same procedures, such as keeping the same callsigns, was poor COMSEC, but many lives were saved because in an emergency everyone knew exactly how to get help.

(U) Working with allies created problems for U.S. COMSEC personnel. U.S. monitors sometimes saw that sensitive information was properly protected by U.S. communicators. Yet allies used insecure means to communicate the same sensitive information. In the early 1960s, the United States rejected several South Vietnamese requests for COMSEC support. The United States first had to decide on the extent of its involvement in Southeast Asia, what South Vietnamese officials it could trust, and to what extent it ought to give COMSEC assistance to an ally having limited COMSEC sophistication and lax physical and personnel security practices. The United States also needed assurance that, once cryptomaterials were given to an ally, the Americans would have the full cooperation of the ally in the secure use of those materials. The U.S. never developed a real solution to this dilemma.

(U) Responsibility for ensuring the security of U.S. communications was divided between NSA and the SCAs (Service Cryptologic Agencies) in the military services. Mr. Howard C. Barlow, chief of NSA's COMSEC organization during much of the Vietnam War, described the division of responsibilities in this manner: "NSA's role was and should remain that of a wholesaler of COMSEC material — doctrine of use, cryptoprinciples, the operation of an integrated NSA-SCA R&D program, and production of crypto-equipment, keylists, codes, maintenance manuals, and all instructional and procedural documents that went along with the systems. The Service Cryptologic Agencies, in contrast, were retailers of the crypto-materials and had full responsibility for the security of the communications of their own services — including monitoring and associated analytic functions. The services also formulated their own requirements, both qualitative and quantitative, and determined for themselves the acceptability of NSA's products." Each SCA sent COMSEC analysis teams into the theater at the same time as they established SIGINT units. Thus, there was a long history of COMSEC involvement with the war.

(U) The traditional approach used by COMSEC personnel was to monitor the communications of a unit for a period of time. Then the analyst would write a report that outlined strengths, weaknesses, and violations. SCAs followed this procedure in South Vietnam. In the 1960s NSA began to advocate a new approach known as the survey or surveillance method. Under the survey method, COMSEC specialists would visit communications centers in the field to learn how an item of information was communicated from one point to another, tracing it from its point of origin to its final destination. They interviewed everyone who handled the item along the way. Piecing together the complete picture of the life of that information, they would know everywhere that information had been communicated, everyone who had seen it, and why. NSA favored this new approach because it emphasized prevention over curing violations that had already occurred during a given period. COMSEC monitoring had to be selective because it was not possible to monitor all communications all of the time. NSA had to convince the SCAs of the validity of this new approach.

(U) Surveillance was introduced into South Vietnam gradually. In 1965 the navy used the new survey method to successfully study maritime operations in the Gulf of Tonkin known as Market Time. The Guam Area Study, which also occurred in 1965, expanded on the survey idea by using a joint service team examining the communications of all three services involved in the Arc Light operations. (Arc Light operations were B-52

flights that came from Guam to strike the southern portion of North Vietnam and the demilitarized zone.)

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(U//~~FOUO~~) Events of the war caused further evolution of the COMSEC survey concept.

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In August 1966 the DIRNSA, Lieutenant General Marshall Carter, briefed the Joint Chiefs of Staff (JCS) on this development. The JCS tasked DIA to find the problems and correct them. General Carroll, the director of DIA, placed Rear Admiral Donald M. Showers in charge of this effort. Showers formed an interagency group which included members from NSA, the JCS staff, and the SCAs. The COMSEC committee of this interagency group devised a multidisciplinary approach to examine the problem and to plug the leaks. The JCS accepted the Showers proposal and named the project Purple Dragon.

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~~(S//SI)~~ Admiral Grant Sharp, the CINCPAC, was tasked to conduct the Purple Dragon studies of the Arc Light, Blue Springs, and Rolling Thunder operations. Blue Springs was for a SAC operation that placed low-altitude photoreconnaissance drones over North Vietnam. C-130 mother ships operating out of Bien Hoa Air Base in South Vietnam released the drones over Laos and North Vietnam. The drones were recovered over the Gulf of Tonkin by helicopters that came out of Da Nang. The Rolling Thunder missions were B-52 strikes over North Vietnam conducted from 1965 through 1968.

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(U) The first Purple Dragon survey period went from December 1966 to April 1967. The fundamental process of the surveys was to "put ourselves in the position of the adversary and study our operations step by step, from conception through execution to completion and beyond." Furthermore, they would focus their attention on the small, seemingly insignificant details of the surveyed operation, considering them to be just as likely, if not more so, to provide valuable information to the enemy as the major aspects of the operation. First, the Purple Dragon teams interviewed everyone connected with these operations. Next, they observed the actual operations. Then they observed support activities including logistics and intelligence. Survey teams participated in the operation whenever possible. After analyzing all of the data, Purple Dragon issued a report to the JCS.

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(U/~~FOUO~~) The results of these surveys were astounding. There were numerous sources of leaks in each of the three operations. For instance, Purple Dragon investigators determined that between 80 and 90 percent of the Rolling Thunder missions were being alerted, with an average warning time of thirty minutes for navy missions off the carriers and forty-five minutes for Air Force missions from airfields in South Vietnam. One cause of the problem was that MACV (Military Assistance Command Vietnam) issued Rolling Thunder FRAG orders, which contained information that could be tied to the take-off time of bombing missions, to 120 different organizations. (A FRAG is a supplement to the mission operation orders with specific information such as number of aircraft, altitudes, time-on-target, and type of ordnance to be used.) MACV accepted the Purple Dragon recommendation and reduced the distribution of FRAG orders. Admiral Sharp made a permanent place on his operations directorate for the Purple Dragon operation. NSA, which had assigned a civilian, to assist with the first Purple Dragon survey, sent a permanent representative to the Purple Dragon staff.

(U) Unfortunately, much of what needed to be done could not be accomplished because of outside factors. MACV never did sufficiently alter stereotyped operations, such as take-off times, refueling points and ingress routes, to confuse the enemy. Tanker operations remained highly stereotyped throughout the war. However, because of the Purple Dragon experience, the U.S.

recognized the importance of conducting operations by using OPSEC principles. One of the ironies of the Vietnam War was that OPSEC gains during the war itself were short term, but OPSEC had a lasting influence on military operations.

(U//~~FOUO~~) The recollections that follow give a well-rounded portrayal of COMSEC issues. Mr. Clark, Captain (later Lieutenant Colonel) Lothrop, and [redacted] not only offer the perspectives of an enlisted man versus those of officers, but also relate similar experiences even though they were in country during different periods of the war. Clark served during the early years of American involvement, while Lothrop served during the buildup; [redacted] served during the height of American involvement in the war. [redacted] also presents interesting observations on the change in COMSEC approach from the monitoring method to the survey method.

(U//~~FOUO~~) Many of these vignettes are devoted to discussions of OPSEC and Purple Dragon activities because they played a dominant role in the battle to encourage better COMSEC practices. The selections by [redacted] Maguire offer the perspective of NSA representatives who assisted the Purple Dragon teams [redacted] also provides an invaluable description of the development of OPSEC concepts. [redacted] and [redacted] explain what life was like as an OPSEC surveyor functioning on the Purple Dragon teams. Lieutenant Colonel Lothrop rounds out the picture by offering the perspective of a facilitator whose organization, MACV, was the subject of numerous surveys.

(U//~~FOUO~~) Monitoring Communications in South Vietnam: Ronald R. Clark, December 1964 to December 1965

(U) "I enlisted in the Army in 1962. I was trained in communication security. At the age of 21, I was on my way to a one-year tour of duty in South Vietnam.

(U) "The military chartered a commercial aircraft and we flew from Travis Air Force Base in California to Saigon, with stops in Seattle, Tokyo, and the Philippines. It was a very long trip. I was assigned to the 7th RERUN (radio research unit) at Tan Son Nhut Air Force Base.

(U) "The 3rd RRU was also stationed at Tan Son Nhut, but we had separate responsibilities. The 3rd RRU gathered intelligence while we monitored security practices of U.S. forces. The 3rd RRU took care of our administration and supply needs, and we ate in the same mess hall. We were both located at Davis Station, but we worked in our own areas which were about two city blocks away from each other. (b) (6) OGA

(U) "We had sixty to seventy men in our unit. We slept in wooden barracks on the base. We were fortunate that we went on frequent TDYs because the mess at Tan Son Nhut was the worst in the whole country. We enjoyed going down town to the bars and shops and to a swimming pool near the base. We also frequented a bowling alley downtown that was run by the Navy. USO shows did not come to Saigon much because they were entertaining the troops in the field.

(U) "I was well trained for my job as a COMSEC analyst especially in the analysis and reporting aspects of the job. I wished that I had had more training about equipment: receivers; the different types of recorders; antenna setup; and the limitations of these equipments. Such training would have improved efficiency. Some duties took longer than they should have because of the poor quality of our tape recorders and typewriters.

(U) "Our job was to monitor security practices of U.S. forces. We did not monitor the South Vietnamese because we had no linguists in our unit. We monitored Special Forces, infantry, and support elements. The major type of monitoring that we did was use of telephones and radios. The

capabilities to monitor teletype and microwave equipments were unavailable to us.

(U) "Four to six teams were sent out for one-month TDYs throughout South Vietnam. The average team had four or five men, consisting of a chief, one analyst and three operators. ASA had its own vehicles which we used both to transport and house the equipment. For longer distances such as from Saigon to Da Nang, a distance of about 400 miles, we sought transport from the Air Force. They usually took us in cargo planes such as C-130s or C-123s. Even though we gave two weeks' notice of our transportation needs, we still had difficulty getting space. We could be stuck in the field waiting for two or three days. Sometimes scheduled visits to commands had to be cancelled.

(U) "Accommodations in the field varied. Sometimes we were billeted with the unit that we were examining and were able to take advantage of all of their facilities. Other times we stayed in a hotel in town and ate off the Vietnamese economy. When there was danger or limited space, we stayed in tents located near our work area. The team chief made all of the necessary arrangements by working with the G2 in the area.

(U) "Excuses that people gave for poor security were lack of time and that authentication procedures were too difficult to complete. Our reports went to the commander of the unit being monitored and to MACV.

(U) "When my tour of duty in South Vietnam ended, getting back to the U.S. was a hassle. The 90th Replacement Battalion was responsible for out-processing and transportation. The battalion was also located on Tan Son Nhut Air Force Base. We were told to report to this battalion two days before our scheduled departure. Since we were going home, we reported in a class A uniform.

(U) "The first surprise from the 90th Replacement Battalion was that if you could not go to the airport, they put you on details such as police call, cleaning latrines, or cleaning sewer ditches. These jobs were unpleasant enough without having to do them in a class A uniform with the temperature between 90 and 120 degrees. Most people had only one uniform to wear because others were shipped back to the States with our belongings. There was a shortage of fatigues in Vietnam, so we could not get them either. Once you entered the battalion, you were not permitted to leave the compound so cleaning your uniform was almost impossible.

(U) "The second surprise was that everyone flew standby. When you got to the airport, there may not be space on any planes. I spent two days going back and forth to the airport before I was able to get on a plane for the U.S. It was great to finally get home."

(U//~~FOUO~~) COMSEC Challenges – An Officer's View: LTC Fred Lothrop, USA, Retired, 1965-66

(U) [redacted] (b)(6)

suddenly because all of the Americans were evacuated due to some crisis in the country. I spent most of my childhood in New England. During my college years, I joined the Signal Corps section of ROTC. Upon graduating [redacted] I was commissioned as a lieutenant and started my full-time military career in April 1960.

(U "After completing basic training and the Signal Corps technical course, I was assigned to ASA. I requested ASA because one of my ROTC instructors had told me about it. After a stint in Europe as an operations officer and some time at Fort Bragg, I was off to Vietnam.

(U) "My first job in South Vietnam was to set up the quarters and station for the 313th Radio Research Battalion in Da Nang. I was fortunate to

have an excellent group of warrant officers and NCOs who had been through the process before. These fellows made sure that we were well supplied when we left Fort Bragg for Vietnam. Although the work was long and hard, Da Nang was enjoyable because of its great beach. The officers were actually billeted on the beach. We arrived in South Vietnam during the American buildup in 1965.

(U) "After three months in Da Nang, I was sent to Saigon to run the 101st RRC (Radio Research Company). (In 1966 the 7th RRU was redesignated the 101st RRC.) I guess that I was selected for this task because of my reputation and because I had some COMSEC experience. When I was stationed in Italy, I belonged to a small unit where everyone did every job. So I learned about COMSEC. The 101st was responsible for supporting U.S. troops by monitoring HF, UHF, and VHF radio communications. Monitoring telephone communications also was part of our purview, but we concentrated more on radio communications. We also advised and trained South Vietnamese soldiers. As a young captain, I soon learned the importance of political skills in handling the diverse personalities that we served.

(U) "When working with the American commanders that we supported, I learned that we had to gain trust and credibility. They wanted to know their mistakes and how to correct them, but they did not like their mistakes to be made public. Sometimes we could not release the results of our studies because of politics. One example was the study in which we found an insecure teletype link that contractor engineers used extensively throughout South Vietnam and neighboring countries. This type of situation was very frustrating. We identified a problem, but were not permitted to try to fix it.

~~(C)~~ "Since I had a communications background, I could identify with the tactical commanders and their problems. Sometimes I found myself having to inform ASA that their COMSEC systems were unwieldy. For instance, when ASA introduced an authentication system that required helicopter pilots to strap a pad and pencil to their knee, I pointed out the weaknesses of such a system. Helicopter pilots must use both hands and both feet when flying. They do not have time to write from right to left and drop down on the pad to find the correct authentication. Furthermore, a pilot should not be looking down at his leg. He must be looking straight ahead at the helicopter gauges.

(U) "Working with the South Vietnamese military was challenging. We gave them monitoring equipment and trained them in its use. The General Staff used the equipment to communicate with their corps commanders. We had to back away from working with the South Vietnamese because we found that they used the equipment for political gain. They did not use the equipment to secure their communications. They used it to determine what actions were taking place at the corps levels.

(U) "The 101st RRC consisted of four platoons and some maintenance staff. Although we had about seventy people, there were usually only about twenty-five at headquarters at one time. All of us traveled extensively to support the commands throughout South Vietnam. We had a shortage of officers, so the officers had to travel more, moving from platoon to platoon. As the officer in charge, I traveled extensively to make sure that all was well with each platoon. Fortunately, the 509th RRG (Radio Research Group), the SIGINT organization at Tan Son Nhut, took care of the administrative needs of the 101st. (The 509th RRG was formed in June 1966 because of the increase in ASA personnel in country. The 3rd RRU went out of existence). We had little time for socialization because we worked fourteen-hour days, seven days a week.

(U) "From time to time, we helped the direct support COMSEC units by holding conferences in

Saigon to discuss problems. The direct support unit that was assigned to the 1st Infantry Division had a problem with callsigns. We were able to help them to conduct and release a study. We demonstrated to the commander that failure to change callsigns was putting the lives of his men in danger.

(U) "Our tasks as COMSEC officers were difficult because we tried not only to change the thinking of the commanders that we supported, but also tried to get them to adopt different procedures. Throughout my military career, I found that the COMSEC problems were always the same. The location or the military organization under study did not matter. People did not consider communications security on a regular basis. Thanks to technology, COMSEC is better today than it was during the Vietnam War. The COMSEC devices used today do not depend on human actions. Encryption is automatic. The U.S. must continue to train all segments of the military to be vigilant about maintaining secure communications."

(U//~~FOUO~~) Selling COMSEC to the Army in South Vietnam: Captain [redacted] December 1968 to December 1969

(U) "During my tour in South Vietnam, I was assigned to the 101st Radio Research Company. For the first eight months, I was a platoon leader and for the remaining four months, I was the operations officer. The company supported MACV units, advisory teams, Special Forces, and all other units that did not have direct support.

(U) "South Vietnam was typical of most areas with an active COMINT mission. COMSEC was a poor cousin to COMINT. From an organizational standpoint, it was appropriate to have COMSEC as a separate group because if we were assigned to an operational command our needs would have been overlooked. COMINT was a higher priority. Unit commanders were more familiar with COMINT, but had to be introduced to COMSEC. The lower-level fighting soldiers were more aware of COMSEC and actually associated ASA with COMSEC. They accepted us because they had no choice. However, the Special Forces were the exception. They were very concerned about communications security and sought us out to survey their practices and to provide instruction.

(U) "South Vietnam was divided into four zones by the U.S. military. Our company had a platoon to take care of communication security in each zone. During the first four or five months of my tour, the emphasis by our teams was on monitoring units and pointing out violations. During the remainder of my tour, there was a change in policy which placed the emphasis on advice and assistance to units.

(U) "From my vantage point, the advice and assistance approach was more productive because commanders were more receptive to us and we could offer solutions on particular problems. Under this new approach, we spent more time giving briefings and offering classes. We also published newsletters on specific COMSEC issues.

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(U) "The following example typified the problems that we faced in South Vietnam. The 141st Transportation Battalion was preparing its support for the 4th Infantry Division [which] would conduct a damage assessment after B52 strikes. Based on the type of information that the battalion gave over the air in the clear, COMSEC personnel, who were monitoring their phones, predicted the time of the strike within twenty-five minutes of when it occurred. The battalion told us the number of vehicles needed and where and when these vehicles should report to the 4th Infantry Division. The battalion not only told what the mission was to accomplish, but also gave the number of people to be transported. We even learned that the 4th Infantry Division was to conduct a general sweep of the area as they returned home. Before this incident, 141st Transportation

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Battalion was not interested in working with us. Their attitude changed after the damage was done.

(U) "People did not deliberately commit communication security errors; they just did not realize the consequences of their actions. People felt close to the party that they were talking to on the telephone and would get into a discussion of classified material without realizing what they did. Another problem was that telephones were frequently located near radios. Information from incoming and outgoing radio transmissions such as callsigns was heard over the phone during a lull in the conversation.

(U) "The NESTOR secure voice equipment improved radio transmission security, but did not eliminate the problem. We had numerous installation problems. The equipment came to commands without the installation kits. The NESTOR equipment came through secure channels, but the cables to set it up came through the regular logistics system. It was a nightmare. The cables and the equipment rarely came at the same time. Personnel also had difficulty learning to use the equipment.

(U) "Inspections of cryptologic facilities to ensure proper storage of codes and other materials [were] another area of responsibility for the COMSEC team. Liaison was 80 percent of the work of a COMSEC officer. We had to sell COMSEC to each commander. Some viewed us as a nuisance. Others felt we were simply out to gig them or report on them to their higher commanders. A few commanders felt that COMSEC just got in the way of their mission. Some people could not be reached. If we ran into a commander who was very stubborn, we waited until he was replaced before returning to the particular unit. We not only needed the commander to listen and act on any recommendations that we made, but also needed the commander's assistance with housing, food, and other essentials during our visit to the unit.

(U) "My duties in South Vietnam required much hard work. I found the experience to be very rewarding. I believe in the need for COMSEC and was glad to have the opportunity to convince others of its importance."

(U//~~FOUO~~) Observations on the Evolution of OPSEC (Operations Security):

(U) "I grew up in Illinois. In March 1951 I joined the Air Force to keep a step ahead of the draft board. I did not want to join the Army because the Korean War was in full swing and going poorly for the Americans at this point. I considered joining the Navy, but they were not accepting volunteers. As a new recruit in the Air Force, I was offered the choices of becoming a chef or a policeman. Neither option appealed to me so I asked for language school. Although my request to learn a language was not approved, I won a ticket to AFSS to study traffic analysis.

(U) "After basic training at Lackland Air Force Base, where we lived in tents and had to use a slit trench latrine, going to Brooks Air Force base, in San Antonio Texas, was a luxury. I spent a long time at Brooks Field washing pots and pans, cleaning windows, painting barracks, and directing traffic. My parents were born in Canada, which lengthened the time for obtaining my clearances. After eighteen long months, I finally received an interim Secret clearance and was assigned as a traffic analyst with the Transmission Security Division of AFSS.

(U) "My job was to analyze voice and printer traffic to extract information of possible intelligence value that could be displayed to the [center]. Our reports were sent to the offending commander, usually with a recommendation to use on-line encryption. The recommendation ignored reality. There was little on-line encryption gear available. We didn't win any friends. The bright side was that our reports hastened the development and acquisition of on-line encryption equip-

ment. The Air Force approach to COMSEC was better than the approach used by the Army and Navy. The other military services concentrated on communication procedures, rather than analyzing what intelligence could be derived from the communications by an enemy.

(U) "I had a knack for this job and enjoyed it. During the last two years of my four-year commitment, I was the head of the section that analyzed all of the Air Force teleprinter communications in and out of the continental U.S. Rank was ignored in favor of talent and experience. Even though I was only a staff sergeant, for a period of time I had a master sergeant, a lieutenant and a major under my direction. The Air Force offered a direct commission to me. I declined because the commission came with an indefinite active duty commitment.

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(U~~//FOUO~~) "I came to NSA because of economic necessity. After my time in the Air Force, I went back to college, but my time at college was cut short. I contacted a colleague from AFSS days, Earl Will. Now Earl was the head of the transmission security analysis division at NSA. I was hired by the Agency at the GS-7 level in August 1955. deceased

(U) "Once again, I analyzed characteristics of U.S. communications that revealed aspects of intelligence operations. NSA did not monitor communications itself until the mid-1970s. Monitoring duties were left to the Service Cryptologic Agencies. I devoted my efforts to shifting the monitoring and analysis operations performed by the services from procedural analysis to intelligence analysis as we had performed in AFSS. ASA responded to this approach quickly, but the Navy dragged its feet. One of my favorite assignments during these early years at the Agency was a six-month TDY to Paris to teach COMSEC to U.S. allies.

(U) "As time progressed, I began to believe that we really did not need monitoring and analysis to identify COMSEC problems. If we could talk to people to determine their communication requirements, means, and methods, we could recommend practical ways to improve COMSEC. My belief was confirmed during my visit to a counterpart in the U. K. He showed me a report based solely on interviews. The report was unique, comprehensive, and responsive in offering suggestions to satisfy security and operational requirements. Thus, the embryo of OPSEC was conceived.

(U~~//FOUO~~) "At the Agency, I began to advocate the interview approach to identify and alleviate COMSEC problems. Initially, my views were met with skepticism. A breakthrough came with the arrival of a new chief of my organization, Walt deceased Fingerhut. Fingerhut was a retired ASA colonel. We bumped our desks together and schemed a plan to introduce this new approach.

~~(C)~~ "NSA used the interview approach for the first time in project BARGAIN. Project BARGAIN involved data collection and analysis of communications associated with missile test operations at Vandenberg Air Force Base in California. The interview approach was very successful, and a precedent was established for this new COMSEC method.

(U) "The next step on the road to OPSEC was an engagement with CINCPAC. By this time, Americans were very involved in the Vietnam War. Fingerhut arranged for me to work with the CINCPAC J6 to initiate COMSEC surveys. This was my first experience working with a joint command. I was amazed at how long it took just to get a tasking message out because of the need to coordinate with all of the staffs. NSA asked the commands to examine their operations by using this new survey approach. We wanted them to identify COMSEC weaknesses by asking people with whom, how, what, and why they communicated.

(U//~~FOUO~~) "The CINCPACFLT was the most responsive to the NSA request. [redacted] was the head of the team that examined Market Time surveillance operations along the coast of Vietnam. [redacted] reported that the results were 'fantastic'. They identified a multitude of hitherto unsuspected problems.

~~(S//SI)~~ "The giant step to OPSEC came with the discovery by NSA that the North Vietnamese had advance knowledge of some American operations. Admiral Max Showers from DIA was tasked with finding the sources of North Vietnamese foreknowledge. Showers formed two working groups, one for COMSEC, the other for counterintelligence.

(U//~~FOUO~~) "The members of the COMSEC group were myself; the head of my organization at NSA, who was also a former colleague from AFSS days [redacted] Gordon Doody from ASA; [redacted] from NSG; and Colonel Younkin and Lieutenant Colonel Jim Paxton from AFSS [redacted] and I, supported by Doody and [redacted] argued for the COMSEC survey approach. The AFSS representatives argued for monitoring and analysis. The scene was quite comical. During the day, we drafted the survey approach. During the night, Younkin and Paxton rewrote the tasking, calling for monitoring. The following day, we rewrote the survey. We argued back and forth until Showers finally called for papers. Our group submitted the survey approach.

(U//~~FOUO~~) "Admiral Showers liked the survey concept. He recognized that thus far, merely monitoring communications had not led to the identification of possible North Vietnamese sources of foreknowledge. Showers expanded our concept by applying our survey method to all aspects of the operations to be studied. Now that we had a plan, we were on our way to study Blue Springs, Arc Light, and Rolling Thunder operations.

(U//~~FOUO~~) "The JCS placed CINCPAC in charge of carrying out these studies and named the project Purple Dragon. The first Purple Dragon survey period was December 1966 to April 1967.] "Admiral Showers' next task was to find a manager and a home for our project within CINCPAC. It turned out to be fortuitous that Showers' first choices, the intelligence organization and the communications organization, were not interested. Colonel Jim Chance became the manager, and our new home was in the operations division, which turned out to be an excellent location.

(U//~~FOUO~~) "Colonel Jim Chance had been the head of CINCPAC Airborne Command Post Division. He had lots of operational experience and was able to mold our ideas into a workable activity. He set up about nine teams and made sure that each team included an operations officer familiar with the operation to be examined. The team collected detailed information and convened in the NSAPAC conference room for interviews with the analytic group. The members of the analytic group were yours truly, Bill Griffies from DIA, Lieutenant Colonel Dick Williams from Pacific Air Force Operations, and of course Jim Chance. Our group assessed the significance of the data collected by the various teams. Colonel Chance was the final editor, handled the politics, and made the decisions.

(U//~~FOUO~~) "Colonel Chance taught me a profound lesson. I told Chance that he had a COMSEC problem because the times over target and general target areas could be gleaned from altitude reservations. Chance responded, 'Hell, this is not a COMSEC problem; it is an operations problem. We will change the way we do things'. The resulting Purple Dragon report spelled out our conclusions and was presented to the JCS.

(U) "We recognized that what we did was unique; that our efforts should be continued; and that our approach should be applied to other operations. Chance proposed that a permanent

organization to conduct surveys be established in the CINCPAC J3. The next question was what to call this new organization. Our role was operations analysis, but operations analysis would not do for a name. We wanted to distinguish ourselves from the many operations analysis groups that already existed in Vietnam. I knew that mother NSA would not allow me to be a part of this new organization unless security was among our objectives. Hence, we arrived at the name Operations Security. A side benefit to this name was the acronym OPSEC, a good way to catch people's attention.

(U) "All of the services were represented in this new organization. Our modus operandi was to select an operation for assessment, obtain participation of a representative from that operation and determine who did what to whom. I began traveling with the Purple Dragon teams within a week of my arrival at my new assignment. I left my wife in a hotel on Waikiki Beach with instructions to find us a place to live. I participated in numerous types of surveys including drone missions, Marine amphibious operations, air refueling operations, and fighter-bomber missions.

(U//~~FOUO~~) "The Purple Dragon team was a freewheeling organization. Lieutenant Colonel Dick Williams and I went to Saigon to visit MACV, seeking support for our surveys. People at MACV said they needed authorization before they could take any action. Williams, our chief operations officer and deputy chief of the organization, immediately sat down and wrote the order telling MACV to establish an OPSEC organization within its structure. Then Williams signed it in the name of CINCPAC.

(U) "As the only civilian traveling with members of the military, I faced some unique problems. For operations purposes, I was assigned to CINCPAC. But for administrative purposes, I was assigned to NSAPAC. Such an arrangement created interesting predicaments. According to NSAPAC rules, when going TDY, I was to stay in military housing. The Purple Dragon teams stayed wherever it was convenient. The J3 solved my problem by ruling that I had to stay with the team for team integrity and that this need superseded the NSAPAC rule.

(U) "Like most NSA travelers in Vietnam, I ignored the rule that I was to fly only in fixed wing aircraft. Helicopters were often the only means of transportation available to us. The most vexing problem for me was the reimbursement levels for TDY expenses. I was only granted $25 a day for expenses. Frequently, I had to pay $25 a day just for lodging. To curtail my expenses, I limited my activities in the field. I opted to work at CINCPAC headquarters located at Camp Smith in Hawaii.

(U) "I was very busy during this two-year tour. It was the height of the Vietnam War, 1967 through 1969. Being at CINCPAC headquarters provided me with unique opportunities. I could send a request message to NSA Pacific, then stroll over to that office and write the answer to my message. I was in daily communications with B Group at Fort Meade and frequently fought with them for additional information. I also fought with area commanders over the release of highly classified information to inadequately cleared personnel.

(U) "When I returned to the Agency in late 1969, I continued to work on OPSEC issues and did so throughout the remainder of my career at the Agency. The Vietnam War not only set a course for my career, but also had profound effects on the communication security arena.

(U) "The Vietnam War was the catalyst for the development of OPSEC. This war dramatically illustrated the need for OPSEC because the enemy had so much foreknowledge of American activities. The Vietnam War also brought about significant changes in COMSEC itself. To me, the impact was most obvious in the development and distribution of more and better COMSEC equipment. OPSEC also had a tremendous effect on

how COMSEC monitoring was conducted after Vietnam. Prior to and during the war, monitoring was conducted to discover transmission security weaknesses. Monitoring was not used to isolate the causes of weaknesses or to examine the impact of such weaknesses on the effectiveness of the operation. After the Vietnam War, COMSEC practitioners used monitoring with considerable selectivity, to confirm or illustrate weaknesses that we had identified in interviews. Monitoring was also used to explore vulnerabilities of selected communications to specific exploitive techniques. I believe that cryptologists learned important lessons about how to protect American communications as a result of the Vietnam War."

(U//~~FOUO~~) I Was a Purple Dragon Jack-of-All-Trades: [redacted] 1969 through 1972

(U) "I grew up in Chicago, Illinois. [redacted] to join the Navy because it was a good thing for someone with a Norwegian background to do. After completing OCS, I held a variety of assignments in the Navy.

(U) "I did not follow a normal career pattern in the Navy; I volunteered for jobs that sounded like they would offer good experiences. I have no regrets about my varied naval career. I started out as a communications officer. Other assignments included being a frogman with the underwater demolition team, a ship's navigator, and a Russian linguist. I was sent to NSA in 1965 to work at the National Cryptologic School. I had been an artist, so I was drafted to be in charge of graphic arts and publications at the school. I also helped to set up the television studio, which was a new vehicle for education at NSA.

(U) "In 1967 the Navy sent me to Hawaii. I was in charge of the registry of publications. My shop provided all of the cryptologic material for the Navy and for the Marines stationed in the Pacific. The material came from NSA, and we had to ensure that it arrived safely at all of the field units. We were very busy because it was the height of the Vietnam War. The Navy expected us to do more and more work without furnishing additional personnel. I was delighted to be assigned to the operations directorate under CINCPAC.

(U) "Purple Dragon was a small organization in the operations directorate. I was the Navy's COMSEC representative on this team. We did lots of surveys because the war was in full swing. My first tour as a Purple Dragon was from July 1969 to July 1972. We did all types of surveys because we knew how military operations were supposed to work. Even though I was in the Navy, I knew enough of the basics to survey ground forces at the Cambodian border. I became a jack-of-all-trades. (b)(6)

(U) "The purpose of our surveys was to determine whether the enemy had warning or foreknowledge of the operation. The standard procedures we followed were first to make a timeline of everything that would occur. Any military operation required complex organization. For instance, you must make sure that the shooters are in the right place. You must make sure that you have enough bombs and that they are dropped when they are supposed to be dropped and that you bomb the correct place. We looked at everything from logistics to intelligence and to the actual operation. Everyone in the military did his own job. Nobody but the Purple Dragon teams looked at the whole picture.

(U) "Team members participated in or accompanied personnel on the various operations that we surveyed. This was an important element of our success. Briefings have their place and we attended them. However, a briefing only tells you what the briefer thinks is happening. Therefore I spent lots of time on ground patrols, in rice paddies, on ships that blockaded the coast and on aircraft carriers. People with a Top Secret clearance were not supposed to be in a combat

zone. We broke this rule in order to do our job. We always carried a stenography type of notebook to write down what we saw. We collected all kinds of junk such as various maps and charts that helped us understand the process. We could not avoid carrying classified material around, but we also always carried a weapon.

(U) "We pointed out routines that were allowing the enemy to successfully predict our next moves. For instance, before every launch of an SR-71 [photo-reconnaissance] drone, refueling tankers left the area and turned toward South Vietnam to be ready for these drones. These tankers never changed their callsigns. Through SIGINT, we found that the enemy monitored tanker communication and thus always knew when the drones were coming. The commander of reconnaissance flights was stationed in the U.S. When informed of the problem, he thanked us for the information, which was news to him. Nobody in the U.S. command had the responsibility to put the whole operation together so they missed such obvious leaks.

(U) "Air operations are very predictable. It is logical for a commander to choose the shortest route, but that choice fosters predictability. A commander's report card was based on how many patrols he ran. It should have been based on how many times he fooled the enemy.

(U) "River patrols were also very predictable because they involved repeated activity. It was easy for the enemy to get his supplies over rivers because our boat patrols went up and down the river repeatedly and always turned at the same spot. When we briefed the admiral on these problems, he stopped us so that he could make a video recording of our report.

(U) "One of the challenges that we faced on the Purple Dragon team was getting people to talk to us. Many were afraid that we were from security and that we were out to report them for a violation. Others viewed us as COMSEC monitors who were waiting to pounce on them when they made a mistake. I believe that too many COMSEC monitors were overzealous. I personally knew Navy commanders who stored their codes in a safe each month and destroyed them at the end of the month as required. These commanders would rather risk giving information to the enemy by plain talk, over having to account for lost COMSEC material. Their solution was to keep the codes locked up rather than distribute the material to the field or to operations.

(U) "Sometimes we convinced people to talk to us by stating that we were from the Purple Dragon section. Purple Dragon was such a mysterious title that people decided we must be okay. Unfortunately, the commander who was in charge at the start of our survey was rarely still around when we issued our report. We worked hard, but the work was very rewarding. Nobody tried to rewrite our reports. Purple Dragon reports went up the chain of command, all the way to the JCS in Washington, without interference.

(U//~~FOUO~~) "David Boak and Howard Barlow offered me a job at NSA when it was time for me to rotate to a new assignment. Barlow and Boak were familiar with my work because they observed me teaching COMSEC to South Vietnamese troops. I taught OPSEC through role-playing, which was innovative for that period. I was unsure of my status in the Navy because of drawdowns and reorganizations so I took NSA up on its offer. I left the Navy on 30 August 1972 and started my civilian career at NSA the next day, 31 August.

(U) "My last Purple Dragon assignment came in late October 1972. Someone in the Pentagon requested NSA to send me to conduct an OPSEC survey on a forthcoming operation. The operation was Linebacker II. [The Linebacker operation was a series of bombing strikes over North Vietnam that occurred in late December 1972.] We rehashed lots of old ground. The rules of

engagement governing the war prevented innovation. These rules made U.S. military operations very predictable.

(U) "I believed in the concepts of OPSEC and in the need for such practices. I devoted the rest of my career to promoting OPSEC throughout the U.S. government."

(U//~~FOUO~~) Facilitating Purple Dragon Surveys: LTC Fred Lothrop USA, retired, 1969 to 1974

(U) "After my first tour in Vietnam, I spent two years at Fort Devens, Massachusetts, as an instructor for various COMSEC courses. The pace was grueling because there were lots of students to train due to the high tempo of the Vietnam War. I spent about thirty hours of the forty-hour workweek on the platform, training students. This left little time for developing lesson plans and grading papers. The work was both important and rewarding. Some of the students in my class were experienced Marines. I don't know why they had to take the class, but they enhanced the instruction. The Marines kept us on our toes and shared their experience with the young army officers. I really enjoyed the opportunity to change attitudes about COMSEC. When my time was up at Fort Devens, I went back for another year tour in South Vietnam.

(U) "During 1969 and 1970, I was assigned to the unit of COMSEC advisers to MACV. We were a small unit, four officers, two from the Air Force and two from the Army. This unit was part of the J3 or operations staff. We shared workspaces with the NSA representative.

(U) "Our primary responsibility was to facilitate the Purple Dragon surveys. MACV wanted to know what these teams were doing and wanted to ensure that they were able to accomplish their tasks. By 1969 we knew that the bad guys were learning about our plans for air strikes and artillery strikes before we executed the operations. Obviously, we had to plug the leaks. We arranged visits for team members, set up transportation and frequently participated in the actual survey, and helped to write the reports. The unit was well suited for these tasks because we had an air operations officer, a ground operations officer and two cryptologic experts.

(U) "Other duties included doing studies for other entities such as the J2 and the NSA COMSEC representative to MACV. We also attended the daily briefings to be on hand to answer questions. Going to the briefings helped us as well because we learned about everything that was going on in the war. Sometimes there would be an indication of an action in SIGINT. The J3 would ask us to go out and see what we could learn. Being part of the J3 was most helpful. As a J3 staffer, I had access to everything and could go anywhere I was needed. I always presented myself as a J3 Signal Corps officer, and thus was able to gather needed information.

(U) "I served as the eyes and ears for the head of MACV. He would call a corps commander and tell him to expect me as his representative. In the heat of battle, I would call the old man on the phone so that he did not have to wait for the reports to come through channels. I made it a practice to tell the field commander everything that I was going to tell General Abrams. I was able to maintain the trust of the field commander while fulfilling the needs of my boss.

(U) "The officer in charge of our unit had been a pilot in the VIP program. He continued to use the VIP plane in this new role. When the VIP plane landed, the host would roll out the red carpet expecting a dignitary. Instead, they saw me, a major dressed in fatigues who usually needed a shave. I would disappear quickly and announce that I would return soon. I traveled extensively and believe that I visited every province in South Vietnam.

(U) "One of the more interesting studies that I participated in was the secure voice equipment survey. We found that ground operations personnel did not use the equipment because it was too heavy to carry. One person could not carry a twenty-five-pound radio plus a fifteen-pound crypto device. The remedy, which was to have two-man teams with a vertical cord connecting the equipment, was a failure.

(U) "Other complaints about the secure voice devices were speed and reduced transmission. When the operator pushed the transmit key, he had to wait for a beep to tell him that the secure voice equipment and the transmitter were in sync. Operators felt that the wait was too long. Transmission was reduced because the crypto device only accepted quality signals from transmitters. Too much noise was one cause of poor quality signals.

(U) "When I completed this tour in Vietnam, I spent the next four years in Hawaii facilitating Purple Dragon surveys. In this position, I tasked other ASA units to support the Purple Dragon teams in their work. I was well acquainted with army structure and knew how to get things done. I also assisted with the transfer of crypto devices and key to the South Vietnamese when U.S. forces withdrew from the area. Even though the role of ASA personnel changed to one of only advising the South Vietnamese, we kept track of the equipment and tried to make sure that it was used properly. In my opinion, the Purple Dragon experience that developed into operational security concepts was the most important legacy from the Vietnam War. I am proud to have played a role in promoting OPSEC awareness."

(U//~~FOUO~~) The Complexities of COMSEC, Joseph Maguire deceased

(U) "I am a native of Pennsylvania who joined the Navy in 1943. I was part of the naval reserves and attended college for the next three and a half years. In the summer of 1946, the Navy offered reservists commissions even though we did not finish our degrees because they needed people. I jumped at the chance, was commissioned as an officer, and started my full-time career in the Navy.

(U) "During the early years of my career, I had lots of sea duty filled with memorable experiences. I became a communications officer because that is where the opening was on my first ship, the *Reuben James*. There was a shortage of experienced officers because so many people left the navy upon completion of their World War II commitments. There was only a one-day overlap between my predecessor and me so I had to learn the job on my own. When encrypting my first message, a ship movement report, I made an error. I received notices from the commander of cruiser forces for the Atlantic fleet, the commander of the Atlantic fleet, and the commander of naval operations. What a start!

(U) "During the Korean War, while I was on the USS *St. Paul*, we were bombarding the east coast of North Korea to destroy its railroad tracks. I was on watch in the combat information center when our ship was hit. Sixty sailors were killed. I would have been one of them if I had been sleeping in my bunk. I was a lucky fellow.

(U) "I finally had shore duty in 1956. During this period, I applied for and was accepted into the Naval Security Group (NSG). My first NSG assignment was communications officer on Cyprus. This assignment was also my first introduction to SIGINT. My first introduction to COMSEC came when I was assigned to Nebraska Avenue in Washington, D.C, as the chief of Cryptographic Operations. The major duties of this position were to issue various COMSEC directives to the various naval fleets. My background as a general services communications officer put me in good stead to promote COMSEC. I spent the last eighteen months of my naval career doing COMSEC at NSA. I joined NSA as a

civilian in 1965 and continued my COMSEC career.

(U) "At NSA, I worked in the COMSEC Doctrine Office and in the Foreign Relations Office. Much of the work that I did in these offices related to the Vietnam War. In 1969 I represented NSA on the OPSEC Purple Dragon team that was under the J3, CINCPAC. I was lucky to get this three-year job in Hawaii. Although I was the only civilian working with military folks, it was easy for me to fit in because of my prior military experience. My experience during the Vietnam War gave me an appreciation for the complexities of COMSEC.

(U) "Merely writing good instructions on the use of COMSEC equipment does not ensure success. France had provided the South Vietnamese army and police force with M-209s in the 1950s. I revised the instructions for this handheld offline cryptographic device to increase the effectiveness of its use. Unfortunately, these instructions either never reached the users or they did not understand them. The South Vietnamese were routinely encrypting 500 five-letter group messages, rather than 500-character messages as called for in the M-209 system. Since their messages were five times too long, cryptographic security vanished. This problem was eliminated only when the NSA representative specifically brought it to the attention of South Vietnamese officials.

(U) "When designing equipment, engineers need ongoing input from the consumers who are expected to use the equipment. The wartime emergency does not diminish this need for input. For instance, the KY-9 was so big and unwieldy that nobody would use it. It was as large as a safe. The Air Force purchased them and had them installed at all of their bases in South Vietnam. The Air Force gave the KY-9 such a bad name that none of the other services would touch the equipment. In reality, the equipment was a failure.

(U) "The development and implementation of new COMSEC equipment does not happen overnight. The secure voice equipment called Nestor illustrated this point. The military requirement for secure voice equipment was levied shortly after World War II ended. One result of this requirement was that the KY-8 was built and tested by the services. However, the services could not find the funding to procure this equipment until the American involvement in the Vietnam War.

(U) "Tactical secure voice equipment also had been developed, but not tested by the services. I remember reminding Howard Barlow, the head of the COMSEC organization at NSA, of these tactical equipments, during one of the briefings that we provided for COMSEC seniors. Because of the wartime emergency, Mr. Barlow arranged for the KY-28s and the KY-38s to be produced even though they had not been thoroughly tested by the services. Although there were numerous problems in the field with these equipments, Barlow made the right decision. When Americans were dying, we had to make any equipment that could save lives available to our military forces.

(U) "Implementing new equipments in the midst of fighting a war created its own set of problems. There was a serious time lag from the delivery of equipment to South Vietnam and the delivery of the mountings needed to bolt the equipment into Army vehicles. The Army was responsible for providing the mountings and cables. I have no idea why the Army took two years to get this work done. The Air Force claimed that they could not take planes out of service to retrofit them with the KY-28 equipment because every plane was needed for fighting. On the other hand, the Navy did retrofit its planes, but their efforts were for naught. The naval planes would start out using secure communications. When they came under the jurisdiction of Air Force controllers, their communications became insecure because Air Force controllers refused to use secure voice equipment.

(U) "Individual attitudes were another cause of poor COMSEC. The Air Force believed that the air war moved too quickly and that secure voice communications were much too slow. The Air Force felt that COMSEC was a burden.

(U) "For part of my tour with the Purple Dragon team in Hawaii, I also served as the COMSEC fleet officer. I volunteered to take on this function because of the sudden death of a colleague who had held this position. I still remember a conversation that I had with a general service communicator in my capacity as the COMSEC fleet officer. There was no love lost between Navy general service communicators and people in NSG. I knew this from my days as a general service communicator and from my days in NSG. However, even I was taken aback when a general service communicator told me that his goal was never to set foot in NSG spaces during his time in Hawaii.

(U) "One of the Purple Dragon surveys that I initiated during my time in Hawaii was on the secure voice equipments. This survey documented all of the various problems with the KY-8s, -28s and -38s. This documentation was most helpful to the people who designed the next generation of secure voice communication equipment. The COMSEC lessons that we learned from the Vietnam War led to better functioning communication security equipment for the military forces of today."

(U//~~FOUO~~) Expecting the Unexpected: [redacted] 1972 to 1975

(U//~~FOUO~~) "After my tour on the USS *Jamestown*, I had a tour in the Philippines where I continued to work on Vietnam issues. In 1972 I went to Hawaii to replace [redacted] on the Purple Dragon team. I had a broad base of experience and was able to handle SIGINT and COMSEC issues.

(U) "The Purple Dragon team examined Operational Security. It was not a COMSEC operation, but COMSEC was an important source of information for the team. The Purple Dragon team conducted surveys on all types of military operations. A team worked on one survey at a time due to the shortage of manpower. The commander of MACV and NSA asked that specific operations be surveyed. Sometimes team members thought up which operations to survey ourselves. We surveyed both American and South Vietnamese operations.

~~(S//SI)~~ "I learned to expect the unexpected when surveying an operation. The drug interdiction survey that I participated in illustrates this point. Ships carrying drugs were identified as they left Bangkok, Thailand. They traveled along the Vietnam coast to their final destination, which was Hong Kong. The U.S. navy tracked these ships. The South Vietnamese would come out, kill everyone on the ship, and sink the vessel and its illegal contraband. Through our survey, we found that the South Vietnamese were confiscating the drugs and selling them in Saigon. The so-called interdiction actually placed drugs in the hands of Americans faster than if the trip to Hong Kong by these ships had been unimpeded.

(U) "I came close to being seriously injured during an operation security survey of an activity by the South Vietnamese Marines. I was in the northern section of South Vietnam with another navy lieutenant commander standing on a landing strip. A three-star general in the South Vietnamese Marines took off in his helicopter. A few seconds later, when the helicopter was only about 200 feet in the air, three mortars landed on that strip. We were knocked to the ground. Fortunately, the mortars went through the helipad and no one was injured. Clearly, someone was after that general. The North Vietnamese had intimate knowledge of the radio procedures used by the South Vietnamese.

(U) "We were required to brief the Joint Chiefs of Staff on our findings periodically. We took turns doing this task. I thoroughly enjoyed giving briefings. For someone in the military, the opportunity to brief the Joint Chiefs of Staff was a highly coveted experience. When my turn came, I was excited, pumped up, and really ready. I arrived at the Pentagon and set up all of my materials perfectly. When the door opened, only three-star defense operations officers came in. No members of the JCS or even their deputies attended my briefing. I was crushed and lost all of my motivation. I probably delivered one of my worse briefings. The next day, as I went to the airport to fly back to Hawaii, I picked up a newspaper. The headlines told of the bombing of Hanoi. I was consoled. The JCS were involved in the last day of planning for the Linebacker II operation. They had a good reason for missing my briefing.

(U) "We had lots of authority, but not much cooperation from other sectors of the military. Officers would rather risk being killed by the enemy then have their mistakes exposed by us. We explained that we came to help, but too many people were afraid that we would ruin their career.

(U) "The major cause of poor operational security practices by Americans was the arrogance of superiority. The Americans could launch a strike whenever we wished. We had both total air and total firepower superiority. Americans were unconcerned as to whether the enemy knew what we were doing. Too many military folks became believers of the importance of OPSEC only after some of our forces were shot or killed. The North Vietnamese were most concerned and followed good OPSEC practices because they had no other choice. They knew we would jump all over them if they gave us that opportunity. Despite its superiority, America lost the war.

(U) "I had one last surprise concerning the Vietnam War. I was in Saigon in April 1975, two weeks before it fell to the communists. My wife asked me to try and get two more buffies (big ugly f...elephant). These elephants were very popular. They were ceramic, painted in gaudy colors, and came in three sizes, tuffy, muffy, and buffy. I went to a shop where I had previously purchased buffies. The owner was in the midst of closing up so that he could leave the country. He gave me the elephants for $5 a piece, which was a real bargain. Normally the purchase price for one elephant was $50 or more. The owner explained that he could not package or mail the items for me. I was on my own. I took the buffies to Tan Son Nhut air base and found that everyone was closing up shop. The officer in charge told me that he would put the elephants on the next flight if there was one. After quickly writing my name on two tags, I tied a tag to the nose of each elephant. Then, I put stamps on their butts and left them. Six months later, when I was back in Hawaii, I received a call from the post office in Honolulu to pick up my elephants. To this day, I have no idea how they made it to Hawaii."