The Vietnam Archive
Oral History Project
Interview with John Spey
Conducted by Steve Maxner
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Transcribed by Christina Witt

Steve Maxner: This is Steve Maxner conducting an interview with Mr. Jack Spey—John Spey, excuse me. I am in Lubbock, Texas, and Mr. Spey is in Fort Walton Beach, Florida. It is the fourth of October the year 2000 at approximately 8:45 AM Lubbock time. Sir, would you please begin by giving a brief biographical sketch of yourself?

John Spey: Yes, Steve. My name is Maj. John R. Spey, USAF (United States Air Force) retired, nickname Jack Spey and we'll go by Jack. This is the fourth of October and I'm giving this interview freely with the Texas Tech University Vietnam Center. I was born in Colón, Panama, in 1938. I attended elementary school in New York State and high school in Oxnard, California. I entered the Air Force in December of 1956 and went to A & E School, Aircraft and Engine School, at Sheppard Air Force Base, Texas, and was assigned as an aviation mechanic to Prestwick, Scotland, in 1957. In 1958 I received an appointment to the Aviation Cadet Program and upon completion chose to be assigned to the airlift wing at Polk Air Force Base, which consisted of five C-123 squadrons for tactical airlift for the tactical air command. In the fall of 1961 I volunteered to participate in a classified mission in Southeast Asia, which was Operation Ranch Hand, the unit that was responsible for the herbicide program in Vietnam.

SM: Okay. Real quick question about where you were born, Panama. What had taken your parents to Panama?

JS: Yeah. World War II had taken my father and mother to Panama.

SM: Okay.

JS: I was born there and left as an infant because when the war in Europe started they ordered all of the dependents out of Panama for safety purposes. I deployed with Operation Ranch Hand to Southeast Asia. We weren't told where we were going or what

we were going to do initially. It was classified, but it was pretty obvious to anybody that we knew that we were going to Vietnam. We were the first C-123s to fly across the Pacific to Southeast Asia. The first spray missions were conducted in January of 1961. For the following three and a half years I served with Operation Ranch Hand flying what I call combat crop dusting. We'll probably get into that a little bit later. Following my service in Vietnam I returned to Hurlburt Air Force Base or Hurlburt Field, Florida, and was an instructor pilot instructing pilots that were destined to go to Vietnam as replacement crews and also took part in the spray training program, which was expanded in training pilots to go to Ranch Hands specifically. I served as chief C-123 pilot for the stan/eval (standards and evaluation) group under the wing for about a year. Then after eleven some odd years flying the C-123, I transitioned into the T-28, the fighter bomber version of the T-28, and became an instructor in that aircraft and subsequently started being assigned TDY (temporary duty) to Laos. In 1962 I PCS'ed or Permanent Change of Station to Laos to work with the air attaché office in Laos and work with the Royal Lao Air Force. I think it was 1972, if I said '62, 1972. Following the cessation of operations in Laos in the summer, early summer of 1974 I was assigned to Tachikawa Airbase in Japan as an advisor to the Royal Thai Air Force attachment serving with the United Nations command. Following that assignment I retired from the Air Force in 1977.

SM: Okay. What made you decide to join the Air Force?

JS: I had learned to fly—I had my pilot's license before I joined the Air Force. I wanted to fly. I wanted to be a pilot in the Air Force. I also was mechanically inclined and the recruiter said, "Oh, yes sir Mr. Spey. You sign right up here and you can go to mechanic school and then you can go to pilot school." Of course I knew he was pulling my leg, but I was excited about trying it so I enlisted. Fortunately I was able to go to tech school as a mechanic and learn to be an aircraft mechanic. I was able to qualify for the examination for aviation cadet program for the pilot training program. I managed to score high enough to be selected and then went through Air Force pilot training.

SM: Now the mechanical training that you received, later on when you became a pilot and after you were flying serious missions in Vietnam and Laos and various places,

did you find that having that mechanical experience working on aircraft helped you as a pilot?

JS: Yeah, very definitely. In fact the engine that the R-2800 Pratt and Whitney engine that I flew on the C-123 was the same engine that I was working on as a mechanic when I was an enlisted man. In fact in one case in Korea I recalled skills as a mechanic I was able to determine a dead cylinder using a very crude method of a grease pencil to determine which cylinder was dead. Subsequently we changed that cylinder and was able to return the airplane to Yokota Airbase in Japan, which was where we were stationed. It also helped—I could tell a number of occasions I could tell when I experienced a broken rocker arm or something of this sort that could ultimately result in an engine failure.

SM: So those skills came in handy not just for the purposes of maintenance, but also you would be able to evaluate an aircrafts' performance and take measures before anything serious happened.

JS: Yeah. I think I had a little bit higher level of the ability to evaluate an engine on preflight or on run-up prior to takeoff as a result of my training as a mechanic.

SM: Okay. How difficult was it for you to qualify for pilot's training?

JS: The tests were comprehensive. I was a high school graduate. I have no college. The written tests were difficult. When I finished them I didn't have a whole lot of confidence that I was going to pass or meet what ever level of criteria that was established at the time. The flying portion of it was not easy, but was certainly not difficult because I'd already had about 110 hours or something like that. So I was very fortunate I only received one pink slip or one failing flight with an instructor the whole time going through flying school.

SM: Okay. Where did you receive your flight training in the Air Force?

JS: The primary flight school was at Bainbridge, Georgia. It was contracted by Southern Airways at the military contract. They were civilian instructors for the first 130 hours at Bainbridge, Georgia. Then from there I was assigned to Reese Air Force Base right there at Lubbock, Texas, for the basic course in the T-33. I graduated in June of 1960.

SM: What was the most difficult transition for you going from having your civilian pilot's license to your military training and military pilot's rating?

JS: I didn't find any difficulty at all. We were told—the rumor was that if you knew how to fly you weren't to tell your instructor that you knew how to fly when you went into the Air Force program, but it didn't take him more then about five minutes to realize that you already knew how to fly.

SM: Okay. You didn't find anything difficult. What was the most memorable part of Air Force flight training for you, either in Georgia or here in Lubbock?

JS: Interestingly enough the most difficult part that I had was formation flying, which ended up being my "cup of tea" if you will in the Ranch Hand Mission. It was a matter of over-control. I don't blame my instructor, but had he said a couple of key words, which I developed as an instructor, it would have made my formation flying much, much better going through school. That was the only pink slip I got was my four-ship formation check ride. I had to retake that check ride again. I was just making too large of corrections and over-controlling the airplane as a wingman.

SM: Were those the words that you developed later as an instructor pilot to help coach your student pilots?

JS: Yeah. I developed into a—well I'm not bragging—but a good instructor pilot. As far as formation flying is concerned I used to, over the intercom to the student, I used to keep repeating, "Small corrections, small corrections, pitch, bank, and power. Depending on the rate of change and the rate of change in motion between you and a wingman, determine the size or magnitude of the control change that you had to make." Once a student took that or recognized that, they smoothed out entirely. If that had been said to me going through flying school I wouldn't have received one pink slip going through flying training.

SM: Well, how close were you supposed to maintain yourselves within your formation in training? Do you remember?

JS: Yeah. The basic outline in formation, and it's not done by the Thunderbirds of course, but you maintain—in normal routine wing formation you maintain wing-tip clearance and nose-tail clearance. Each airplane you identify two points on the aircraft. One on the fuselage and one on the wingtip generally that you keep in alignment and that establishes your angle. Then you go out that or slide out that angle far enough to where you can see the opposite elevator. That generally ensures nose-tail clearance. That

depends of course on different airplanes, but that's basically the idea. You establish the angle by lining up two points on the aircraft, one on the fuselage, one on the wingtip or one on a tip tank or somewhere out on the wing. Then slide out that angle or in that angle until you can just barely see the opposite elevator on the opposite side. That generally ensures nose-tail clearance.

SM: Okay. Was there anything in particular with regard to your pilot training that you wanted to discuss?

JS: No. I think it was just a normal course. I think you can see in my bio I just now graduated distinguished graduate from pilot training school.

SM: Yes, sir. Okay. Then you found yourself at Pope supporting Fort Bragg, North Carolina. I assume that the missions that you flew there were in support of the 82nd Airborne and Special Forces and also indigenous Air Force missions. Could you describe some of the responsibilities you had there?

JS: Yeah. Well, the C-123 wing, I think it was the 464th combat crew training or 464th troop carrier wing at Pope, consisted of five squadrons of C-123s airlift configured. We could carry fifty troops if configured for troops or cargo, approximately ten thousand pounds of cargo. The job of the wing was to support, generally was to support the tactical air command for their training exercises fighter outfits and also to provide jump school training for the 82nd Airborne, which was right there at Fort Bragg of course. We were also involved in training missions. For example we went to Panama for a joint Army-Air Force annual training exercise at Rio Hato in Panama and just general cargo flying or dropping troops for pay jumps for the regular Army troops or training jumps on one of the five or six drop zones there at Fort Bragg.

SM: Did you also—from the C-123, did you drop cargo or was that something that you had to land and unload?

JS: We landed it, unloaded it. The C-123 could—at that time we weren't dropping any cargo as I recall. The C-123 was used to drop cargo in Vietnam in the airlift missions supporting the Vietnamese government or the ARVN. We had the capability of doing it at Pope, but as I recall I don't ever recall dropping cargo at Pope.

SM: Did you fly many jump missions yourself?

JS: Yeah. You mean dropping troops?

SM: Yeah, where you had Paratroopers.

JS: Yeah.

SM: What was that like? Was there anything in particular that you found challenging or interesting about that?

JS: Well, in those days the Air Force philosophy changed and changes periodically. We were flying three ship formations across the drop zone. If you were a wingman you were flying just a normal wing position, lead and then one and two or two and three. You turn your green light or jump light on when you saw first silk off the lead airplane. The lead aircraft had the navigator. This was generally in the middle of the day in North Carolina and it's bumpy and all that type of things. So you're working kind of hard there trying to stay in formation. You fly a little looser when you're just in route, but then as you come in over the drop zone you close up in a normal wing position. You give your warnings to the jumpmaster and the flight engineer who's back along side the jumpmaster. Then as soon as you see first silk out of lead well, you popped the green light on and then they'd go. Of course the airplane lightens pretty rapidly as the guys go out, but it was good sport.

SM: Mm-hmm. Okay. You said that you were—you volunteered to participate in an operation. How much in September of '61 when you volunteered there to do something, how much did you know in terms of where you would be going and what you would be doing? Did you know anything?

JS: We underwent two interviews. First of all the cadre for Operation Ranch Hand consisted of about five pilots from the Special Aerial Spray Flight at Langley Air Force base. They had been in the mosquito control business for a good many years. They were flying L-20s and C-47 Gooney Birds that were modified for spray. They had no C-123 experience. When the program at staff level was being developed, the C-123 was the chosen airplane to be the spray airplane. The cadre from Langley had no experience in the C-123. So their commander, Cpt. Carl Marshal, and his ops officer and a couple of others came to Pope Air Force Base—this was all coordinated of course at higher command level, tactical air command level—and conducted interviews of those individuals that were selected to be interviewed because we had the experience in the C-123. We didn't have any spray experience. So between the—in the initial interview we

were told that it was an unusual mission. We had to be a volunteer. They preferred single people, but there weren't enough single people to fill the numbers that they needed. At that time we weren't told where we were going or might be going or what we were going to be doing. It was just an interview to determine your willingness if you will. Those of us that were selected for the second interview, we were told at that time—we weren't told we were going to Vietnam, but most of us, certainly I did, recognized that we certainly weren't going to Acapulco. We were going to be going to Southeast Asia. At that time also as I recall, we were told that we were going to be involved in a spray operation. I don't remember how detailed it was in terms of vegetation control or crop destruction or whatever, but we were going to be involved in the spray operation. Since these people were from Special Aerial Spray Flight at Langley it was pretty obvious that that's what it was going to be. Those of us that volunteered at that point were then put on special orders to become the initial cadre of Operation Ranch Hand and that occurred sometime in October of 1961. We were told not to tell anybody of course. The mission was classified secret at that time.

SM: Then the following month November '61 you found yourself in Vietnam.

JS: Well, the day after Thanksgiving we started flying in the direction of Vietnam.

SM: Oh, okay. Okay. I see.

JS: The spray tank—well, there were six aircraft and the spray tank was a stainless steel tank that had actually been constructed during the Korean War Vintage or Korean War Era for possible use for crop destruction by B-29s called the Hourglass program. The tank fit nicely into the C-123. That thousand-gallon tank was used as a gasoline tank, as a fuel tank for the flight across the Pacific.

SM: Oh, okay.

JS: The fuel was transferred from that tank by electric pump into the main tanks of the aircraft, the aircraft regular fuel tank. The objective was to depart Pope Air Force Base and fly to California all in one trip without a stop. That was to allow us to check fuel consumption and also oil consumption. The C-123 had just a single oil tank. It didn't have an auxiliary oil tank and it didn't have a quantity gauge in the cockpit to tell the pilots how much oil was left in the tank. So we had to guess at it. In each of the

airplanes they installed a fifty-five gallon drum with a Sears and Roebuck hand crank pump and a hose that went to the oil tank. The idea on the first flight, or the first sortie to California, was to determine the oil consumption of the engine so that you knew how much to pump periodically because the flight from California to Hawaii was somewhere in the neighbor of sixteen to seventeen hours depending on the wind, the velocity of the wind out of the west. Then from there to Wake Island was almost the same distance again. So you had two very, very long legs. You had to manage—keep transferring the fuel. That was simple enough because the fuel tanks had quantity gauges on them, but you had to periodically transfer x amount of oil just by guessing by God after learning what the oil consumption on your particular airplane was for each engine.

SM: Do you remember around how much it was?

JS: No. I don't, probably about two gallons and hour, something in that neighborhood.

SM: Wow.

JS: Our route of flight was from California, well Hamilton Air Force Base to Honolulu, from Honolulu to Wake Island, from Wake to Guam, from Guam to Clark Air Base and then subsequently two airplanes went on into Vietnam from there.

SM: Okay. Now did the initial cross country flight, the flight from Pope to California, did that work? Did all the aircraft make it?

JS: Yeah, it generally worked. We ran into—California weathered out and we ended up going into Las Vegas short of California, but that leg was long enough to determine the information that we wanted to—that we needed to learn. Then the following day I believe we went on up to Hamilton and then from there started working our way across the Pacific.

SM: Now when did you personally arrive in Vietnam?

JS: I personally arrived in Vietnam I believe on the—it was in the first week in February of 1962.

SM: What were your first impressions? Did you go into Saigon or Tan Son Nhut?

JS: Yeah. That's right. Tan Son Nhut was the airbase that we operated at for—well, until 19—until December of 1966. The officers were quartered downtown. It was

up to us to go downtown and find an apartment house or something like that. We were TDY. At that time there was just a tent city under construction at Tan Son Nhut. Our enlisted personnel were living in the tent city. They had a mess hall that was being developed to take care of their feeding. The officers were allowed to go downtown and find an apartment house on the economy if you will. That's what I did.

SM: What were your—when you landed and opened the doors to your aircraft, what do you remember most?

JS: It was hot, even in December. I became interested in Indochina from reading whatever was available at the time. In 1960 and shortly after graduation from pilot training I learned as much as I could from reading about the country. I had a pretty good idea what it was like, the climatology and the geography and so forth. I was really excited about going there and then excited about being there for the period of time that I was. It's a very, very beautiful country and still is.

SM: How much of a briefing did you receive? What kind of briefings did you receive prior to your departure and then once you arrived in-country with regard to the situation in South Vietnam and Southeast Asia generally?

JS: The military situation in '61 and '62—it's sometimes hard for people to understand that the whole effort both on the part of the good guys and the bad guys was in constant evolutionary change, growing in intensity. In 1961 in some areas in the countryside, while in some areas in the countryside the Viet Cong had total control and had had total control since the French Indochina War, war zone D, U Minh forest, places of this sort. The Vietnamese government never established any control over those areas. They were simply unable to. The general threat was in the larger towns, cities, and districts, district headquarters, provincial capitals and this type of thing was relatively little in '61-'62 time frame. Certainly in the city of Saigon there was—the city of Saigon was a very beautiful city. You weren't concerned at all, at least I wasn't, about the threat to you type of thing.

SM: Okay. When you said you read books and materials concerning Vietnam prior to your departure, do you remember anything in particular, any books maybe by Bernard Fall? Was there any particular source that you found particularly helpful in understanding the complex dynamic in Vietnam?

JS: Yeah. Well, Ellen Hammer's book, I believe that's the name the conflict in Indochina—the conflict in—you can help me on this and correct the text. I think it's *The Conflict in Indochina* or something like that. (*The Struggle for Indochina).*

SM: Okay.

JS: Ellen Hammer's book was good. Of course Bernard Fall's *Street Without Joy* obviously was a good one. There was a book entitled *Protracted Conflict*, which I can't find anywhere any longer. I collected over the years starting in '62, well '61 and '62, about sixty different books on Indochina. They disappeared as a result of a divorce. I don't know where they ended up, probably in the Dempsey dumpster. But anyway. Truong Chinh's book *Protracted Conflict*, Bernard Fall of course, Jules Roy's book *The Battle of Dien Bein Phu*: *Hell in a Very Small Place*. These books came out a little bit later, but they all helped, not helped, but just, you know, increased my interest in Indochina. Not only in Vietnam but including Laos, not Cambodia so much in Cambodia, but Laos and Vietnam. I made kind of a special effort of doing a lot of map reading as we were flying around just to get a real good lay of the terrain, particularly the coastline. It's a beautiful coastline. I'm an amateur sailor or was. Actually did quite a lot of sailing after I retired, but I was just fascinated with the typography of the whole country south of the DMZ (demilitarized zone), which is all the further that we went.

SM: When you departed, what did you think the United States was trying to accomplish with its advisory efforts in Vietnam?

JS: It was a good program. The Vietnamese—well, I hate to use the term "counter revolutionary warfare," but I like to think of it as a better revolutionary warfare. The advisory program that was being conducted by the Army personnel and Special Forces personnel was an excellent program in and of itself. The major problem, which resulted in the demise of the effort, was the fact that our country the United States at the command level, at the Washington level, really didn't have with the exception of a few and some of them were excellent—really didn't have an understanding of revolutionary war in terms of Mao Zedong and Truong Chinh and people like that, their methodology. As a result there was a tendency to quote "solve the problem" on the battlefield. We either lacked or didn't understand the need to control, to better control the political apparatus in Vietnam, the Diem Government if you will. There was attempts made,

General Lansdale made an attempt and others, but we couldn't or didn't affect the political changes that were necessary to make the Saigon government more desirable than the promises that were being made by the Viet Cong. In spite of the best efforts of the advisors on the ground the loyalty to the Saigon government never reached the point that was necessary until the very later years, until General Abrams took over. In the book *The Better War* by Lewis Sorely probably spells it out as best as can be spelled out. In the early years we were trying to counter everything with bombs and bullets as opposed to political change, but that wasn't a fault of the military, of the Army advisors because we weren't trained to do that. In general we did a very, very good job. I think it's pretty obvious today how welcome the Americans are in South Vietnam because one of the things that we—one of the legacies that's left and not often talked about is all the hearts and minds programs that were being conducted by the Army, the medical assistance that was being provided to the villagers. We had a small cadre that were out fighting in the field, but there was an awful lot of hearts and minds programs that were going on within the country. It helped the economy. It helped maintenance in this type of thing as a result of the work that was being done by Army medical technicians and this type of thing. That's the reason that Americans are so welcomed in the south right now is the new generation remembers that. They've heard it from the parents.

SM: Well, when you arrived—would you talk quickly about the process of actually getting into your unit, learning about the types of missions you were going to be flying, the areas, the tactical area of operation in which you would operate, things of that nature?

JS: Initially as you can see by the statistics in Paul Cecil's book *Herbicidal Warfare* or Colonel Buckingham's book *Operation Ranch Hand* when we first started spraying—first of all the military had never done anything like this before. We'd never sprayed agricultural herbicides in an environment such as Southeast Asia. 2,4-D and 2,4,5-T had never been applied to jungle foliage. The initial missions were test missions. They were flown at the same criteria 160 miles an hour and 150 feet above the ground. Then after we sprayed then those areas were evaluated by Vietnamese agricultural experts, American agricultural experts, and chemical corps personnel from the Army after anywhere from six weeks to a month or two months later when the full effect of the

herbicide was apparent. This was done in order to determine or try to make an estimate as to whether our equipment was spraying at a deposition rate adequate to produce the desired result. The missions were flown in different areas. We flew along Highway 15 from Saigon, Bien Hoa actually, down towards Vung Tau or Cap Saint Jacques as it was called then, but down at the southern part of the Mekong River or the Saigon River. Then we flew some test missions down in the Delta, southern Delta. These were evaluated. It became apparent to the technical people that our equipment, the spray equipment in the airplane needed to be—we were spraying initially at one gallon an acre. That was the capacity of the spray equipment of the airplane given the pump pressure and all this type of thing. It was determined that that wasn't enough. We weren't putting out enough material per acre to affect the desired results in the timeframe that they'd hope that the effect would be seen. So modifications were made to the equipment to increase the horsepower of the little pump motor that sat behind the tank and the flight engineer sat on a seat and operated the pump. They were able to raise the pumping capacity to a gallon and a half per acre. It was later determined or the decision was made that they wanted to go to three gallons per acre, which ultimately the equipment was modified by about 1963 or 1964. It was modified to where it was producing three gallons per acre. Prior to that time when we were spraying at a gallon and a half an acre we'd have to spray an area twice in order to come up with the three gallons per acre. During those early years the American advisors, the Army advisors to the Vietnamese provincial chiefs or district chiefs realized the capability of the mission. So additional requests were coming in to spray additional areas and everything started to grow. The demand started to grow and our amount of flying started to increase as well to meet the demand. Eventually by 1964 the equipment was modified again to where the airplanes were producing three gallons per acre. So we only had to make one pass across any particular area. When we had to make two passes, the second pass, if we had sufficient material left depended on the amount of or any opposition that we received in the first pass. In other words if the target was quiet going through the first time we just turned around and came back across it again and that was it. We were finished for that particular area. We flew home. In some cases if we got shot up pretty decent on the first pass and we had to make

a second pass we waited a couple of days and tried to sneak up on them again the second time.

SM: When you started flying your missions did you know at that point that the U.S. Air Force were flying Operation Ranch Hand missions at the expressed invitation and desire of the South Vietnamese government?

JS: Oh, yeah. The South Vietnamese government was the strongest advocate of the spray mission. This has all been coordinated with the Ngo Dinh Diem government in 1960. In fact President Diem was very anxious for the mission to get into crop destruction, as well, which we didn't really start until about 1963-'64. It was all fully coordinated with the mission. Well, to give you an idea of how a mission was generated, a province chief working with his American advisor would select an area that was under enemy control, under VC (Viet Cong) control. Whether it be a defoliation mission war zone D or U Minh Forest or wherever where they had no friendlies, where they had no political ambition or control in that particular area. That particular geography on a map was sent to Saigon through a very, very lengthy approval program or evaluation program jointly between the Americans and the Vietnamese including Vietnamese government officials and American embassy officials to look at the politics of the particular target area. It was a long process. The order of battle of course was obvious, the only people that we didn't know where they were were the bad guys. We knew where all the friendlies were. We didn't know where the bad guys were. An evaluation at the same time was made on terms of intelligence, in terms of the amount of opposition that we might experience. That was part of the equation as well. When an area was approved for spraying, the Ranch Hand lead navigator and the lead pilot for that particular mission would over fly the area at six or seven thousand feet well above threat from the ground. Visually look at it and visually take a look at the terrain features, the target boundaries, the area boundaries. Sometimes in the very early days we were working with French maps, maps from the French-Indochina days. Their accuracy was good, but it wasn't perfect. During the evolution of the whole effort over there the Americans were making, we were making our own maps, which were some what better using photoreconnaissance and all this type of thing that was brought into the regime. We would look at the target area and come up with a plan trying to exercise surprise, particularly if it was a crop

destruction mission and direction approach to the target, location of a good IP, identification point, for the descend to spray altitude and this type of thing. So we had a chance to see the target area from a high altitude, a safe altitude, and come up with a general plan. In some cases we requested photo recon of a particular area, particularly if the boundaries were difficult to identify because when you're zipping along at 150 feet above the ground while your field of vision forward, left, and right is not all that great. So, all the help that you can get is important. Once that survey flight was done then we started detailed mission planning in our office type of thing. Then the missions were fragged from seven, well, not 7th Air Force in those days, but by the Air Force. Fighters were desirable, fighter cover was laid on. Helicopter rescue were placed on stand-by should they be needed. Forward air controllers were assigned and these folks were operating in the area and they knew the area very, very well in terms of—they had the best information as far as where they bad guys might be. So it was very, very well planned to the extent that it could be.

SM: There was an emphasis to make sure that there were no innocent civilians in the spray pattern, things like that?

JS: Oh, certainly. We didn't spray over friendly villages. There's no sense in killing their tomato plants. It's just going to make them mad.

SM: Right.

JS: The areas that we were spraying were areas that were under total Viet Cong control and GVN or Government of Vietnam had no influence in those areas at all. In some cases in large areas defoliation, war zone D and places like that, those areas were done in anticipation that eventually friendly forces might go in there and attempt to clear out. War zone D for example had been a safe haven area back during the French War and even beyond that during World War II.

SM: Yes. Now, how effective were the intelligence briefings, that portion of your briefing in terms of estimating enemy activity?

JS: Good. They were good. Yeah, they were good. We were getting firsthand information. In some cases we would fly into the province and land at the province airport and talk with the provincial advisors and the province chiefs and this type of thing. It was as good as it could be. The Viet Cong were fluid. One thing that is not—

it's obvious that when you apply commonsense to it crop destruction missions where you have crops you have people. If it's enemy crops then you've got enemy people. They're going to shoot at you for two reasons, one you're the bad guy and they're the good guy or they're mad at you because they think it's true that their crops are going to be affected as a result of the work that you are doing. So crop destruction missions were where we received the most opposition. When you're over a defoliation target say war zone D or the Boi Loi forest or a place like that it's dense jungle. When you have dense jungle the only place that you're going to be shot at is from a clearing if there's somebody in the clearing. So those kinds of missions generally it took less opposition except possibly during the descent going into the target and the climb out at the end of the target. But when you're over dense jungle it was generally fairly quiet although that wasn't always the case, but in general terms, crop destruction missions were obviously where you received the most opposition.

SM: Okay.

JS: Just call me Jack, Steve.

SM: Okay. During the briefings that you received for the time that you were there from '61 to '64, were the primary enemy dispositions were these Viet Cong, PAVN (People's Army of Vietnam), combinations? What did you—who did you expect to come across on your missions that you flew?

JS: Well, in the early days it was just generally the Viet Cong.

SM: Can you give me a timeframe for that when you say early days?

JS: Well, I'd say from the time I started '61 through '66.

SM: Okay.

JS: The only time that—well, in the intelligence briefings that we received as I recall there weren't any distinction made between whether it was going to be—there might be North Vietnamese mixed with the Viet Cong. There was no—it wouldn't have mattered. Our opposition was generally small arms fire, light machine gunfire, moderate machine gunfire, you know .50 caliber type, although it wasn't .50 caliber. They didn't have .50 caliber. That type of opposition, it didn't matter who was shooting at us. We had three basic methods if you will. We tried to make every effort, particularly if it was a high threat area or we thought it was going to be a high threat area. We'd try to go in

very, very early in the morning. First light, light enough to keep from running into trees and light enough to see the target boundaries. The assumption was that if we got in early in the morning they were maybe still at breakfast so we could zip on through with minimum opposition. That was one tactic. The other tactic, if we knew or thought we knew as a result of the intelligence briefings, we'd engage in what we called a heavy suppression mission in which the fighters—and this took a lot of coordination and planning between the fighters and the Ranch Hand—lead to drop ordinance along side our flight path and in some cases in front of our flight path as close to us as possible without hitting us in the process in an effort to keep the enemy's head down long enough for us to come lumbering through at 160 miles an hour. On a target such as that we generally closed or reduced our longitudinal spacing between aircraft so that we all got through generally at once if you will rather then being strung out and becoming individual targets, a possibility of an individual target. So we closed up our longitudinal spacing so that we could zip on through an area while the fighters were striking on either side or one side depending on the nature of the target. That generally helped to keep the bad guy's heads down. You have a videotape that I left with you all I think that shows you a pretty good example of that, the different types of targets and the aircrafts strafing them on either side and dropping white phosphorous, CBUs (cluster bomb unit), that type of thing in order to keep the enemies heads down long enough for us to come lumbering through. We had—the flight engineer sat in an armored box. Originally in the early days it was made out of plywood with flak jackets just laying over it, but eventually it became a bulletproof box that surrounded his seat. The troop jump doors of the C-123 were tied open prior to the descent into the target. He had smoke grenades sitting right in front of him. We received ground fire at the option of the pilot, he'd call for smoke. The flight engineer pulled the pin and threw the smoke grenade out the open door and that assisted the forward air controller in locating the general area in which the opposition may have come from. Then depending on the nature of the target and the amount of opposition that was occurring as we proceeded down the target and the amount of opposition that was occurring as we proceeded down the target they might expend there or sometimes maybe not. They'd say, "Just hold up because we don't want you to drop all of your bombs back there because we've still got a ways to go and it might get worse up the road." That was

a determination made by lead. So we had the ability of marking a general area. Then the forward air controller could subsequently look and try to find where that opposition may have been coming from and expending the fighters in that area. We tried to make as much use of surprise as we could rather than any pre-announcement, any pre-strike, if we didn't really think that pre-strike was really necessary. That was a call that was made in evaluation planning prior to the mission being flown.

SM: One of the reasons that I asked that question with regard to the different types of units you might have been briefed upon concern exactly what you covered, the types of weapons you encountered. I was wondering if you ever expected to receive any kind of significant triple-A threat because of a main force unit that might have been in the area that may have possessed some quad-50s or the 12-5s or anything else that might have been a more significant threat then an AK-47 or a light machine gun.

JS: Not in the southern part of the country. Keep in mind we were the first ones. We sprayed the Ho Chi Minh Trail starting in 1965. The missions up north that is when you could—there was more likelihood of picking up heavier opposition, but in 1964 and 1965 when we were spraying the Ho Chi Minh Trail—and most of the work on the trail was south of Highway 9. In fact we opened up a lot of the trail to visual reconnaissance by the spring because in '64 and '65 the trail petered out. It wasn't a big main thoroughfare like it later developed in the mid and late '60s, early '70s. The loads were broken down and it was more of a footpath type of thing crossing the Vietnamese-Lao border into Vietnam. But we were able to open up an awful lot of area south of Highway 9 along the main artery of the trail as a result of the spraying and increased the vertical visibility to photoreconnaissance and to VR (visual reconnaissance) reconnaissance on the part of the forward air controllers that were operating in the area. It was in those areas when the opposition could become greater, but generally for the most part if we got shot up real bad, and this happened on a number of occasions—you'll see it in Paul Cecil's book *Herbicidal Warfare* or *Operation Ranch Hand* by Buckingham. There was a number of cases where we got shot up pretty good on a target and the 7th Air Force said, "Hey, wait a minute. Let's reevaluate this, this whole thing because we're going to start losing an airplane." So they'd pull us off a target area and we'd go somewhere else type of thing. There was that flexibility built into the system.

SM: What was the most significant mission for you where you took enemy fire?

JS: In my particular case the one I recall the most was we were on a high speed descent. Keep in mind that we flew at safe altitude en route to the target. We'd take off from Saigon or wherever we were taking off from. We'd climb up to seven or eight thousand feet depending on the weather and the cloud cover, fly to the entry point or a good IP and in the process establishing our longitudinal spacing. We'd stack high behind each other, what we called piggy back and that way the lead aircraft and the subsequent aircraft, the wingman could maneuver much more easily. They could maintain their longitudinal spacing and at the IP point then a descent was made, a rapid descent was made to spray altitude, 150 feet. When we reached the start of the target the switch was thrown and the pilots yolk and the airplane started spraying. On this one particular mission during the high speed descent, or during the descent at high speed, we took about two rounds through the airplane. We could hear them slap through the airplane. The flight engineer came up and said, "Sir, we've got a cable hanging down." All the flight control cables ran along the top of the cargo compartment and in addition some of the cables from the throttle, the mixture controls and engine controls ran through the top of the airplane also and then out the wing to the engine through a pulley system. This cable was hanging down. They said, "Sir, we've got a cable hanging down." Of course the flight controls were all working because they were large cables and this was a small a cable. We couldn't figure out what it was. The throttles were working okay. The prop controls were working alright. The mixture controls were working okay. So I said, "Well, let's keep on going." So we went on down and started spraying. I don't remember, I was number three or number two in a four-ship formation or five-ship formation. We went through the target area. We took a lot of ground fire, but no one was taken hits or serious hits. Then started alternately working across the target area laterally by doing a turn at the end and then coming back through again. On the last run through, the number two engine was hit and quit. The co-pilot shut it down and he put full power on the left engine and immediately dumped the load. There wasn't much load left to dump, but we had a dump valve on the aircraft. The C-123 was a very poor performing airplane on one engine. This was before the jets were added to make them K-Model. So that if you lost an engine for whatever reason you had to dump the load

because you were over grossed and you couldn't climb. You were going to crash if you didn't dump the load. The load was dumped immediately what little was left of it and there wasn't a whole lot left because we were almost finished. We were heading towards the water. We applied power to the good engine and it didn't produce full power. It only produced about ninety percent of the power available. So we stumbled out very, very slowly. We picked up a couple more hits until we got to the water and once we got to the water of course we were safe as far as ground fire was concerned. Climbing at a very, very slow rate the 123 was a very poor climber on one engine. In this particular case the one engine wasn't putting out full power. I told the crew, I said, "Be ready to shut down this remaining engine. We'll just land in the mud flat out in the South China Sea." The tide was out and it would have been the smoothest landing in the world landing in that mud. I told the co-pilot, I said, "Be ready—stand by to jettison the fuel tanks," which you could do on a C-123. You could punch the fuel tanks off. They were on bomb shackles. At least if you crashed rather then landed you weren't going to burn. But the left engine kept running. It was running smooth. It just wasn't putting out all the power. We just kept on climbing as slow as we could. The little airport of Soc Trang was about forty miles to the northeast. We stayed out over the water until we got up to about twenty-five hundred or three thousand feet and then turned inland towards Soc Trang and landed there, single engine of course. The right engine had already been feathered. I think we had one flat tire, one main gear tire had been holed by a bullet. I think one nose gear tire—C-123 had two wheels on the nose wheel. I think one of those was flattened. Anyway we landed there and there was something like eighteen bullet holes in the airplane.

SM: Wow.

JS: But nobody got hurt. As it turned out that particular cable was to the filter system that was on each of the engines. When the cable was cut the filter went to the filter position and that reduced the amount of air to the engine. The idea of the filter was to keep the dirt out of the engines when you were landing in a dirt field. That was the cause of the reduction in that upper left engine power output.

SM: Wow. Also—okay, yeah. You lost the whole engine and then you didn't get a hundred percent power and that's why. Now how many—

JS: Yeah. That was the cause of it, the lack of full power out of the good engine.

SM: How many aircraft or did you—did your unit lose any aircraft while you were there from ’61 to ’64?

JS: No. Not due to spray. Well, the first airplane that was lost, the first Air Force aircraft that was lost was a Ranch Hand airplane.

SM: Okay.

JS: It was on a training mission about half way between Bien Hoa and Vung Tau. All three members were killed. It was impossible to perform an accident investigation in the way that it’s possible in this country because the ground security, the question of ground security and the ability to get into the area to perform the aircraft investigation the cause of that accident is unknown. But the airplane hit the ground and exploded and all three crew members were killed.

SM: Were they recovered do you know?

JS: The bodies were recovered, yes. Those were the first three names that appear on our memorial.

SM: Mm-hmm. Wow. How much interaction with Vietnamese officers and personnel or people did you have?

JS: Actually pretty good. Our aircraft were kept, and our Quonset hut, which was our “office” quote unquote, was on the SAM ramp, the Special Air Mission ramp for President Diem at the south end of the north-south runway on the west side. That’s where President Diem’s airplane, his VIP Gooney Birds were kept. After the coup, that’s when Nguyen Cao Ky, Vice Air Marshall Ky, kept his black suit pilots flying A-1Hs. We kind of jokingly refer to him as the Coup Busters, but essentially that’s what they were. They were extremely loyal to General Ky. We became—his group, his A-1Hs flew fighter cover for us for a substantial period of time. We became pretty close friends with his aircrew and ground crew. They were pretty descent English speakers. We’d build up a pretty good rapport with them. In fact all Ranch Hand aircrews received Vietnamese pilot wings. The first pilot wings were presented by Vice Air Marshall Ky and also the lavender scarf that Ky and his troops wore. So we had a pretty decent rapport with those folks. They were excellent fighter pilots.

SM: How about Vietnamese civilians?

JS: Well, yeah. Of course I had a Vietnamese maid that took care of my apartment house or my apartment. Yeah I had—you know I'd eat on the street, eat at little pushcarts and all this kind of stuff, ride petty cabs. When you get drunk enough you put the petty cab driver in the petty cab and you'd try to peddle it yourself. (Laughing) That was always fun.

SM: Okay. What about your general impressions or I guess we could start with the military personnel. What was your evaluation of the Vietnamese military personnel you had contact with?

JS: I thought they were very, very good. One of the—but again their loyalty so to speak I didn't sense it at the time, but in retrospect thinking about it and knowing the nature of the warfare, the revolutionary warfare or counter revolutionary warfare whatever you want to call it. Their loyalty probably didn't extend to the Presidential Palace. There in was the ultimate cause and demise of the effort of even after when President Diem was ousted in 1963 I think believe it was—or '62.

SM: No. You're correct, Sir. It was '63.

JS: It was '63.

SM: November, early November, just before Kennedy was assassinated.

JS: November, yeah, November in '63. I was in the Philippines on that particular day. The subsequent generals that took over, the loyalty again didn't extend to them, to the central government. For example, the success that General Lansdale had in the Philippines was—in putting down the Huk Rebellion was largely due to the fact that—I can't remember the Prime Minister's name now.

SM: Magsaysay?

JS: Huh?

SM: Magsaysay.

JS: I think so. But anyway—it was General Lansdale's ability to educate him on the political changes that needed to take place in order to pull the—to negate the cause of the Huks. Once that was done—Magsaysay—once that was done—that program filtered down to the province level and that type of thing while the Huk Rebellion just—they were out revolutioned by the good guys. That wasn't possible in Vietnam. It wasn't possible until General Thieu took over in the later years when General Abrams was there.

That's when the whole idea of political modification and becoming more attractive started to work. In the '72 timeframe you could drive anywhere you wanted to in Vietnam practically. Our ambassador did and our chief of station did. The North Vietnamese had been beaten politically. Unfortunately Washington was pulling the stops on the money and that's the reason that the whole business collapsed, but that's another story.

SM: Yes, sir. Well, you said you were in the Philippines when this occurred, but what did you think about the Diem Coup and the assassination of Diem and Nhu? How did that effect you in terms of your evaluation of what was going on in Vietnam and what the United States was trying to accomplish? Or did it?

JS: It did from a personal—it did—from a professional standpoint it didn't have any bearing. As an amateur historian of Indochina or Vietnam it was interesting. It had to be done because he wasn't going to change. He wasn't able, capable of inspiring the population to any great degree to follow the Saigon government. The unfortunate part was that the alternatives weren't any better. So we still found ourselves in a political quagmire. I think if President Thieu had been—General Thieu had been identified earlier and been put in position earlier that the outcome could have been, might have been different. The communists made it very, very clear. When you look at communists' doctrine particularly Truong Chinh's writings or in the experience in Algeria, *Martigues and The Centurions*, the communists recognized that the western philosophy, the democratic countries, would not tolerate a conflict that lasted for a very, very long time. That they would tire of it as the French population did during the Indochina War and the Algerian experience and of course certainly the American's experience. Drag it out long enough, just—to the communists in Vietnam the battlefield was only a part of the equation. The bigger part of the equation was the propaganda, worldwide propaganda. If you drag it out long enough public opinion is going to turn and you're going to be forced out politically. That's exactly what happened. I was interviewed because I spent as long as I the time that I spent in Vietnam I was interviewed as I was starting to leave or getting ready to come home a number of times by the Washington Post and Baltimore Sun and all this type of thing. Another very good friend of mine who was a roommate for a while, we told them. We told the reporters in 1965, "We're going to lose. There's just no way

we can win because we," Bob and I recognized that the communists were going to drag this out long enough. Now they made mistakes along the way. The Tet Offensive was one, when they decided to do a set piece battle, which was in opposition to their basic doctrine. The Easter fiasco in '73 was another case, '72 I guess, '72 or '73, where they decided to go big time and got the hell kicked out of them in the process. They broke their own discipline, but for the most part they dragged it out long enough to where public opinion at home turned against it. Congress reacted, cut off the funding, blah, blah, blah, and that was the end of it. It wasn't because of the American fighting man on the ground. He did a whale of a job and is to be commended for it, particularly due to all of the rules of engagement that he had to deal with, which limited greatly his military options. We still just tore the Vietnamese, the bad guys to pieces. It wasn't lost because of the GI. It was lost because of public opinion, but that was part of the communist doctrine. They knew it was going to happen and they'd already seen it happen twice, the Indochina War and the Algerian War. They got a little greedy a couple of times and tried to go set peace also. There was a few heads that rolled in Hanoi as a result, Truong Chinh was one of them. His head didn't actually come off, but he was demoted.

SM: Yes, sir.

JS: So Bob and I could see it happening. I've got a newspaper article right here, not in front of me, but here at home, where I said, "Hey,"—I was quite frankly surprised it lasted as long as it did and so was Bob. I thought our effort would go down the tubes in the very way it went down the tubes by about 1969.

SM: Well, let me change the subject here just a minute. While you were in Vietnam, a couple of other highly visible important events occurred. First prior to the Diem coup, the Cuban Missile Crisis, I was wondering how much you heard about the crisis while you were in Vietnam and what did you and your fellow airmen talk about and your fellow pilots?

JS: In the early years—you know we're all used to hearing them or seeing the movie *Good Morning Vietnam*. In the early years we didn't have AFRTS (Armed Forces Radio and Television Service) and we didn't have television. My news source was a Zenith transoceanic radio where I could listen to VOA (Voice of America) and listen to Radio Australia, the BBC (British Broadcasting Corporation). The Saigon radio station

that was run by the Diem government had a fifteen-minute segment in English with a good English speaker, but it was highly censored. So our news source was essentially short wave, mine was. We did have the *Stars and Stripes*, which was printed in Japan and flown in. We were reading what normally you would read in the newspaper, but as far as the missile crisis in Cuba we were aware it was going on, but we were busy doing what we were doing. The other good guys were doing what they needed to do down there.

SM: Okay. How about the Kennedy assassination?

JS: I was in the States when President Kennedy was assassinated. I was spraying or dusting fire ants.

SM: Okay. What were you doing back in the States? Was it just a short break between tours?

JS: Yeah. It was a break between TDY's.

SM: Okay.

JS: We were down at Fort Campbell, not Fort Campbell, but just outside of Savannah, Georgia. Fort—one of the forts there.

SM: Okay.

JS: We were spraying for or dusting rather for the imported fire ant.

SM: Wow. Okay. How much did that have an impact on your unit when you went back?

JS: I don't think it had—the ground work for Vietnam and for the involvement in Vietnam and the growth of American involvement in Vietnam had already been—well, the snowball was already rolling. In other words it was growing. The threat continued to grow and our reaction to that threat continued to grow as well and of course resulting in the first American frontline combat units being deployed in 1965. So it was pretty evident that our mission was growing. The demand for what our mission was capable of doing was growing, as well as everything else, numbers of Americans that were being brought in, the additional advisors and then of course the combat units.

SM: So do you think the change in leadership resulted in any kind of significant shift in the policy or do you think Johnson just followed Kennedy's policy?

JS: I don't know. You know, I'm not a politician, but I think that President Johnson reacted—I think any president would have reacted the same way at the same time. In other words the threat was increasing so our need, our commitment had already been made generally speaking. So our reaction to the threat—the evolution just kept on growing. Of course General Westmoreland's idea was more troops and all of this type of thing. Again we were dealing with a revolutionary problem and trying to counter it with conventional reaction because we couldn't control the—we were unable to control the political element of the Vietnamese government. That's one problem we didn't have in Laos, but that's a different story. We were able to pretty well dictate the politics in Laos and as a result maintain that stability in Laos. When you look at Laos, when the war ended in Laos, the amount of real estate we controlled was pretty much the same as the amount of real estate that we controlled before we became involved in Laos. That wasn't the case in Vietnam. My opinion and the reason—the difference was that we were able to—we had more influence on the political machinery in Laos than we were in Vietnam. Until the later years in '71 and General Abrams and Ambassador—I'd have to pull out Sorley's book again. I can't think of the name of the ambassador. I can't recall the name of the ambassador. I'm trying to think of the next to the last ambassador in Vietnam.

SM: Knolting?. It wasn't Knolting. Um—

JS: Let me holler at Marilyn a minute. Honey!

SM: We can—Sir?

JS: Are you there?

SM: Oh, yes sir.

JS: Okay.

SM: Bunker. Yes sir.

JS: Yeah. During that period—I don't know if you've had a chance to read the book *The Better War, A Better War*—

SM: No. I haven't.

JS: By Lewis Sorley. It's outstanding. It's just beautiful. It deals with Ambassador Bunker and General Abrams and how they changed the whole nature of the war. Working with General Thieu, President Thieu, how they were able to make the Saigon government if you will, more responsive to the people. As a result the Viet Cong

just dried up. The North Vietnamese were left alone, left standing alone. Unfortunately at the same time Congress was turning its back on Southeast Asia and they had no control over that. It's a beautiful, beautiful book. Ed did a fantastic job.

SM: Okay.

JS: And uh—

SM: All right. So let's see. Was there anything else that was note worthy or interesting?

JS: Well, one of the things that is—one point that I think is interesting to make. From 1961 until 1964, in the fall of 1964, the U.S. military had never done anything like this before. We'd never been combat crop dusters if you will. I call them the world's dandiest defoliators. There weren't any books, how to do it books, that had been written before. The way we learned was by doing and by correcting mistakes that we made, but the cadre of pilots were essentially the same from day one until the fall of 1964. Some of us had four TDY tours in Vietnam. One of our navigators had four TDY tours. We'd go to Vietnam, spend six months. The first cadre had a special waiver from the Air Force to go eight months, which was unusual. Six months is normal max for a TDY. But we kept rotating and rotating and rotating until some of us started getting burned out. At that point the Air Force, seeing that the unit's operation was going to be—the mission was operational. Then started assigning PCS personnel for one year tours. But it was during that early period of three years that we were all the same guys doing the same thing. So all that information that we learned was verbally being passed along to the next guy. Once the spray school was established and particularly after it was established at Hurlburt and expanded, veterans from Operation Ranch Hand were assigned to Hurlburt Field as instructors. But there was never, never a book written about any of this, just history books, but not technical books, tactics if you will. But that's how we got as good as we got was by the same fellows doing the same job over an extended period of time. A job like that, a mission like that, will never been performed again of course. The unit grew from six airplanes to about twenty-six aircraft in 1968. That's how large the demand, the missions grew and grew and grew. Approximately nineteen million gallons of herbicide were sprayed by the Ranch aircraft during that period of time from '62 until '71.

SM: What were the major lessons that you learned as a pilot during the three and a half years that you flew Ranch Hand operations? What was the biggest or was there anything that was significant that you didn't know prior to going that you learned when you got there?

JS: Well, I think that just overall the general technique of spraying particularly—flat terrain is comparatively easy. Mountainous terrains work was the most demanding. Because of the performance or lack of performance of the 123 as a B-model—now this is before the jets. I didn't fly the—the aircraft were all B-models when I was in Vietnam. They hadn't been modified to K-models with a J-85 jet engine underneath the wing. That made it a whole lot safer in the event that you lost an engine. But the mountain flying was the most challenging. Obviously you work downhill. You didn't try to spray uphill. That was the very first thing we learned and the crew coordination between pilot and co-pilot. The pilot was responsible for altitude control, lateral spacing, terrain clearance. The co-pilot was responsible to monitor the engine performance and apply the power when power was needed to be applied and to adjust longitudinal spacing between aircraft. As a result the crew coordination was very important. Quite often you're flying with the same crew so it became kind of like a ballet. If you could keep it like a ballet, keep it smooth, you were doing a good job. It was a lot of fun. It was demanding. I think the crew coordination was the thing that when you're all finished everybody kind of shook hands and, "Hey, that went pretty good," type of thing. No, I think that's about all.

SM: So was that incorporated into the training cycles, the training doctrine that was taught at Hurlburt?

JS: Yes it was. Yes, very definitely.

SM: Okay.

JS: That was very, very important. The only thing that we couldn't do here at Hurlburt was hilly terrain.

SM: Yes.

JS: We attempted to find a place, but it was way up in Georgia. By the time we flew all the way up there and flew all the way back and then depending on the weather and so forth. Then we started scaring chickens and pig farms and all that kind of stuff. It

just wasn't cost effective. They had the OJT (on the job training) their rough terrain work, in-country. We didn't have any hilly country right here in the panhandle.

SM: I was curious. How much physical contact would you and your crew have with the defoliant itself? In terms of getting spray or if a tank got shot through and it's squirting into the aircraft itself. How much—would you yourselves ever get covered with this stuff?

JS: Any time you walked on to the airplane your hand or hands came in contact with the material. If you walk around the spray tank there was always a little bit of spillage that occurred when the guy put the nozzle in the hole like you're filling your car full of gas. There was always a little bit of spillage that occurred. The ramp area where the aircraft were parked had a certain amount of spillage, not due to carelessness, but just due to normal handling. If you rubbed your hand as you walked through the cargo compartment, if you braced yourself or leaned up against the spray tank your hands were dampened by the material. You had leaking nozzles. The herbicide didn't like rubber gaskets. It would eat up the rubber gaskets and then the nozzles would start to leak. If you rested your hand against the tail boom just to stand around shooting a bull after a mission, your hands got wetted in the material. The mechanics that had to change nozzles, change diaphragms and the nozzles, their hands were wetted in it all the time. If they had to pull a pump because a pump had gone bad and break the pump down, their hands were soaked in it. I likened it to the fact that if your hand—in a walk around inspection you'd grab the tail boom and shake it. If a drop or a smudge as you walk by the tank and just banged on the tank and checked to make sure the lid was tight on it, your hands were dampened. You'd sit there and, "Gee my eye itches." You'd scratch your eye or your ear itches so you'd scratch your ear. I mean, you know, this material was—I mean, I'm not trying to leave the impression that the cargo ramp or floor was wet and you slosh through it. It wasn't. This material was expensive and the guys made every effort not to waste it, but you had a certain amount of drippage. I've stood out waiting for the crew bus to come pick us up when it's starting to rain. A leaky nozzle and it would drop—a drop from the leaky nozzle would hit you on the shoulder of your flight suit. It was just an everyday part of the mission and particularly the crew chiefs and the flight engineers. If you took battle damage and it happened to cut a pressure line leading

out to the spray booms that material would spray all over the place and inside the cargo compartment until the flight engineer could hit the pump, kill the pump. The airflow was such in the airplane, the troop jump doors were tied open. So the flight engineer could throw out the smoke grenade if he received ground fire and call for smoke. The airflow was from there out through the flight compartment and out through the side windows that were open and intentionally open in case we took a hit into the plexiglass. That way there wasn't any flying plexiglass to possibly hurt you. If a round wanted to come in and open a window it did, but it didn't shatter the window because the window was open, but the airflow is up through that area. So you were smelling it all the time. I think when you get into the whole business of the Air Force health study they're measuring our dioxin level and the dioxin level of our comparison group. Ours is significantly higher then the comparison group. I think it's commonsense and logic tells anyone that we had the greatest degree in frequency of contact with that material of anybody in Vietnam.

SM: Okay.

JS: I've even tasted it, intentionally.

SM: I was just going to ask you that. What about the Shot Club? That's what you're referring to correct?

JS: Say again.

SM: The Shot Club. The guys that—I understand that there used to be demonstrations of Ranch Hand guys literally taking a shot glass full.

JS: I've heard that story, but I don't know it to be true.

SM: Okay. How did you intentionally taste it then?

JS: The last time I intentionally tasted it was a year ago when a German reporter and photograph crew came down to the house to do a story on our last reunion last year. I made him taste it.

SM: The German?

JS: Yeah.

SM: He did?

JS: Oh, yeah.

SM: Wow.

JS: I did it too. I've got a small bottle of herbicide orange, white and blue here at that house.

SM: (Laughing) Okay.

JS: The next time—if you get down here again I might bring it out there and I'll let you taste it.

SM: Yes, sir. Okay. (Laughing)

JS: It tastes terrible. (Laughing)

SM: Now wasn't this stuff cut with diesel?

JS: I don't—

SM: Or kerosene?

JS: I don't remember.

SM: It wasn't the defoliant. It wasn't the Agent Orange that was sprayed purely because it was too light. I was under the impression—

JS: They had to have a carrier.

SM: They had to have a carrier, which was either kerosene or diesel, some oil—

JS: Yeah, probably diesel.

SM: A heavy petroleum component to it.

JS: Oh, yeah. It was. If you got it on your windshield—if the echelon—formation had to turn into you as a wingmen. You were late getting into the turn you would—and your windshield got obscured, you had a mess on your hands.

SM: Yes, sir.

JS: Eventually they put windshield wipers on the airplane just like you have in the car where they had water, mine didn't. This was a modification that took place later, where you could flip the windshield wiper on. If you just work the windshield wiper all it would do is smear it even worse, but then they added a water spray system to where you could wash it off to restore visibility out the front window. There was a way that you could do it by hand. I could clear one third of my windshield by sticking my hand with a rag outside the airplane and rub the windshield clean for about eight inches or nine inches of the outboard side of the front window, but you had to be very careful. You had to keep you hand flush against the Plexiglas in the boundary layer otherwise 160 mile wind would take your wrist off, but it could be done. If you really got hosed down what you

hoped you could find was a rain shower on the way home and fly through the rain shower and wash off the airplane. But that was pilot error to end up in a situation like that. If the lead turned into you too quickly, he shouldn't have done that and you've should have been quick enough to go up and high above him.

SM: Yes.

JS: But occasionally the guy get—he'd get late getting into the turn and get obscured.

SM: Now did you have and your fellow airmen and other pilots, did you all have any concerns about coming into contact with this material?

JS: No, absolutely not. This material was—2,4-D was invented by a lady by the name of Fanny Fern over in Valparaiso about eight miles from here. Fanny Fern died here a few years ago. 1946. There's a picture of Fanny Fern standing on the White House, steps of the White House with President Truman. They'd just got done spraying the White House lawn to kill the dandelions with 2,4-D. 2,4,5-T was developed in the '40s also. 2,4-D and 2,4,5-T—you can still by 2-4-D downtown at K-Mart. It's a perfectly safe herbicide. Its safety has been proven. It kills weeds. It doesn't kill people. It doesn't poison the ground. It doesn't do any of these things that have been attributed to it by a few of the veterans and some of the veteran organizations. It's just a good ol' common herbicide and that's the one that was available and that's the one we used for the most part. We used others, but—no. We didn't have any problem with it. We knew what it was and we knew what it wasn't. It did have a little bit of dioxin in it, but very, very, very little. In the press that you read the public perception now is that it was a component or a major element or something like that of the chemical. It was two ten thousandths of one percent, you know, two parts per million, two inches in two hundred miles. Two ten thousandths of one percent is not a major element or a component. It wouldn't even be listed in the table of contents for a loaf of bread, not at that small percentage. But you know that story.

SM: Mm-hmm. Was there anything else that you wanted to talk about with regard to your three and a half years in the Vietnam in the first tour or series of tours?

JS: No. I think that—I ended up being an instructor pilot of course. I started out as a co-pilot, was upgraded to a first pilot and then upgraded as an instructor pilot and then signed back here at Hurlburt as an instructor pilot for the next four years.

SM: Where were you when the Gulf of Tonkin incidents occurred?

JS: Well, what's that, 1964?

SM: Right. August.

JS: Saigon.

SM: You were still in Saigon?

JS: Yeah.

SM: What did you hear about that?

JS: Just what was on the news and in *Stars and Stripes.* The Maddox—no it wasn't the Maddox.

SM: The Turner Joy.

JS: Yeah. It was.

SM: Yes, sir. The Maddox and the Turner Joy.

JS: Yeah. Turner Joy and Maddox has got I think—whether that's necessarily, in retrospect necessarily exactly what happened we don't know, but at least we've got the bombing going that way. (Laughing)

SM: Okay.

JS: I'm not going to—I'm not privy to anything.

SM: Right. So did you hear about the Gulf of Tonkin resolutions?

JS: Oh, yeah. Sure.

SM: Okay. Did you find that to be a welcomed response or what did you think of it?

JS: No. I thought it was, you know—that's one of the things that—what we should have done except the politicians wouldn't allow it to happen, we should have bombed them into the Stone Age back then. We wouldn't have had nearly the problem that we ended up having in later years.

SM: When you say, "bomb them back to the Stone Age," do you mean the North Vietnamese, the Viet Cong, or both?

JS: Well, the North Vietnamese. Had we been willing, politically willing, to stop the North Vietnamese, which we could have done easily particularly then, and had the ability or taken the initiative to better control the South Vietnamese government, which we could have done, the outcome of the whole conflict would have been far different in my opinion. We could have out revolutionized the Viet Cong and destroyed the influence of the North Vietnamese. The Viet Cong weren't going to be able to do it alone not with the Americans and not with the increased capability of ARVN (Army of the Republic of Vietnam). They weren't going to be able to win alone. They wouldn't have been able to win politically had we been able to better control the South Vietnamese government. There was a number of people in our government who knew what needed to be done, but there weren't enough of them to effect that change. There wasn't the political will in Washington to do it. That was obvious when I—I went through, I was fortunate enough to go through COIN School, Counter Insurgency School at Maxwell. I forget what year it was. General Lansdale was one of the speakers and I was just—I'm honored to have been able to sit and listen to him and Burney Yo who spent a lot of time in Southeast Asia also. They were guest speakers. It was just obvious to me, like I was telling you before about the interviews that I did in '66, "Hey, we're going to lose this thing because we don't understand the nature of the war that we're fighting." Some did. There were a few, but not enough, not enough to affect Washington policy. It wasn't until the later years, the Bunker years and General Abrams' years and the Chief of Station, Helms that that all came about, but by then it was too late because Congress was already pulling the string. Public opinion had already turned so badly here in this country that we weren't going to spend any more money. The promises that if they did—President Ford you know—if the communists came roaring across while we popped the 52s back in there and then all of a sudden he said, "Nope. That's it. We ain't doing it." That was the end of it. Of course the Vietnamese were smart enough to know that things were coming apart. They weren't dumb. They realized that public opinion was against the whole thing at home. So they started shipping everything they could to Paris and getting out of town. They weren't naïve, many of them weren't. The same thing happened at Laos, but a little bit later. Do you need to say anything?

SM: Oh, no sir. I just wanted to say thank you very much. This will end the first interview with Jack Spey.

Interview with John Spey
Session [2] of [3]
Date: November 7, 2000

SM: This is Steve Maxner conducting interview number two with Mr. Jack Spey. It is the seventh of November the year 2000 at approximately 9:30 AM central standard time. I am in Lubbock, Texas, and Mr. Spey is in—where are you, sir?

JS: Okay. My name is Maj. Jack Spey. I'm in Salt Lake City.

SM: Okay.

JS: Conducting this interview with the Texas Tech University the Vietnam Center on November the seventh.

SM: Sir, why don't you go ahead and discuss the training of Ranch Hand pilots. Pick up where we left off.

JS: All right. During the early years from 1962 until 1964 the Ranch Hand aircrew rotated on a TDY basis from a Special Aerial Spray Flight at Langley. Those of us that had volunteered for the program continued to rotate back and forth between Vietnam on a TDY status through about 1964. Some of us flew as many or were on as many as three and four TDY tours. Some of us were getting worn out because of that. At that point in time the demand on the part of the Army ground troops, the Vietnamese American advisors. A demand for the missions gradually increased the amount of defoliation that was requested from the crew. The man power requirement simply couldn't be met by TDY personnel any longer. PCS personnel were assigned after going through training at Hurlburt Field in the C-123 both phase one, just transition and instruments and then the tactical phase, landing on dirt fields and dropping cargo and this type of thing. Those individuals who volunteered for the Operation Ranch Hand were then sent to Langley Air Force Base in Virginia, which was the father of the mission if you will. Training was conducted at Langley, but that unit was quite small. It only consisted of about three instructor pilots and two airplanes. As the mission grew in Vietnam it became obvious that the training be shifted to Hurlburt Field where all the training of the seven or eight different kinds of airplanes were being conducted, the pilots en route to Vietnam. The spray school was moved there—took advantage of the number of instructed pilots who had had Ranch Hand experience. We expanded the program.

The program was expanded to about ten or twelve sorties gracefully. So the pilots that were destined to go to Vietnam went through phase one training, transition and instrument, then they went through the tactical training, landing on dirt fields and the cargo capacity, dropping troops, dropping cargo by parachute. Then if they volunteered for Operation Ranch Hand, they were assigned to spray school at Hurlburt. That syllabus was expanded to try to make it as realistic as possible. Communication would be made in Vietnam. The only element that we couldn't simulate in Northwest Florida was mountain training because the nearest mountain from Northwest Florida were going up in Georgia. It was simply not cost effective to fly that far and conduct up and down hill, over hill and dale and that type of thing. So that portion of the training, the hill country training was conducted in Vietnam after the pilots were assigned to Vietnam, after leaving Hurlburt for Vietnam. It was a cadre of instructors conducting the spray school portion at Hurlburt were all Ranch Hand veterans that had been reassigned from Vietnam to Hurlburt as instructors and subsequently came home well lived the experience that we had gained over the years. I think I mentioned earlier in the interview previous, there weren't any books written about this mission beforehand. If you want to drop a bomb you can read all manner of Air Force publications on how to drop a bomb or shoot a machine gun, drop nuclear weapons. But in the case of Ranch Hand Mission, combat crop dusting if you will. There wasn't any historical background for that kind of work. There was nothing in writing. So we learned by making mistakes, correcting those mistakes, and passing that information along to the pilots during the training program. At the end of the mission, nine years later in 1971 there wasn't any books written about it afterwards, if you will, either. So that's basically how the training was conducted. The aircrews were all volunteers with the exception of a couple of classes during the '68-'69 timeframe in which case the pilots were selected from the best pilots during phase one and phase two and essentially asked to volunteer or were assigned to the unit. That number was relatively few in order to meet the manpower requirement for units for Vietnam. In most cases the individuals went to Vietnam assigned to Ranch Hand and with very few exceptions after they started flying the mission chose not to stay in the unit. There were a few, not many. The commander's prerogative over the year was that if an individual just

flat didn't feel he was happy in combat crop dusting he could transfer to one of the airlift squadrons with no stigma attached to the transfer.

SM: Okay. Sir, I'm going to pause this for just a moment. Now you mentioned that there were no manuals or I guess, yeah, Air Force manuals written before and none written subsequent to Operation Ranch Hand incorporating all that knowledge into something that the Air Force could then fall back on later, for instance today if they ever needed to fly defoliation missions?

JS: That's correct.

SM: Do you know why?

JS: The politics of it you'll have to read in the Lt. Col. Paul Cecil's book *Herbicidal Warfare*.

SM: Yes, sir.

JS: But in 1970 because herbicide orange was discovered to contain a small amount of dioxin—during that period we had, what is it, time speech, which came along later, but the Love Canal up in New York and all of this stuff. There was this dioxin mania started. President Ford issued a congressional order that there would be no more spraying utilizing herbicide orange or other herbicides that contain—I believe there was one other that contained a trace amount of dioxin. Essentially he said—and part of this was the stigma that was attached to the mission in general that it was some sort of germ warfare. The politics got into it and congressional order was written or was written by the president that this type of mission would never be conducted again.

SM: Okay.

JS: Of course that could always be changed by another president.

SM: Yes, sir.

JS: But there weren't any manuals written about it. We had phase training manuals at Hurlburt to—I believe there was a small one that dealt with flying techniques, but not—it didn't get into the tactics' element of it. Essentially you can't, even the two history books that are written about Operation Ranch Hand, they both deal with target nomination, target approval procedures and this type of thing, but they don't really go into the pilots' flying technique. So that in essence there's nothing there.

SM: Now in the training did you discuss specifically the way missions were approved in Vietnam? That is in terms of—

JS: No. No because that wasn't really a—well, in the general sense yes, but that wasn't germane if you will to the flying element of it. The pilots, the aircrew—the aircrew were involved in planning a mission to the extent that if the target appeared to be more difficult or sensitive from a security standpoint we often one of the pilots who probably was going to be designated as the lead pilot for that particular project and the lead navigator, quite often would fly a survey mission over the target area at a safe altitude, weeks maybe a month ahead of time to visually take a look at the target area itself. In some cases particularly in the early days, they would—that crew would land at the province headquarters or district headquarters depending on the location of the target and talk to the senior U.S. military advisor to the Vietnamese commander to get a better feel for the intel if you will and the disposition of enemy forces if they were that well known by those individuals and generally they were. That gave us one, a chance to see the target area from altitude, locate endpoints, start points, and this type of thing and made us better prepared to go out. Once we got at low level to where fewer mistakes were made in target identification. But that was all the further that we got in to the target. That was after target nomination was already made by the Vietnamese to the Vietnamese to the 202 committee, which was manned by Air Force and Army chemical corps people and ARVN staff as the target nomination went through the approval process. That approval process also included U.S. Embassy personnel as well if the target was some how might have political overtone particularly in the case of when we started spraying over the Ho Chi Minh Trail. The approval for that had to come from Washington.

SM: In terms of the area that you're talking about there, are you including not just South Vietnam, but Laos and Cambodia?

JS: In Laos yeah.

SM: In Laos.

JS: We didn't do any work in Cambodia.

SM: Okay.

JS: We first sprayed segments of the Ho Chi Minh Trail in 1965. That was during the expansion process, the initial expansion process by the North Vietnamese to use the trail for infiltration into South Vietnam.

SM: Did you yourself have an opportunity to fly over that area after the defoliation missions were completed?

JS: Yes I did.

SM: What did the trail look like? When was that in terms of month and year?

JS: We flew our first missions, I believe it was and the exact date of course are in both the books *Herbicidal Warfare* as well as William Buckingham's book on Operation Ranch Hand. But they were flown in the fall of 1964—I'm sorry, 1965. For the most part the work was conducted south of Highway 9, which runs east and west across the Indochina peninsula. Because north of there the North Vietnamese had already employed larger anti-aircraft weapons and it was obvious a 123 wasn't going to be able to handle that, not rumbling along at 160 miles an hour. The major road was a well-defined dirt road in those days. Then laterally leading off to the west—I'm sorry to the east towards the Vietnamese frontier. The roads generally degraded into trail and that's a lot of the work that we concentrated on was spraying over the trails where they could be seen then guestimating where they would go based on the terrain after they disappeared under the foliage. Then of course you had to wait six weeks to three months before the foliage dropped. You may or may not have exposed as much as you would have liked because you were guessing at it so to speak. But it did open up for visual reconnaissance to the forward air controllers additional expansion of the trail network towards the east, towards the South Vietnam border from Laos.

SM: Okay.

JS: In the early days, '65-'66 timeframe we received very, very little opposition on those missions. This was due in part to the strong discipline of those that were operating the trail. They were told and they were disciplined to the point that their job at night was to fill in bomb craters that had been placed there the day before and move material south. Their mission was not to shoot at airplanes. For the most part that discipline held on their part. In fact you could see slit trenches down there that they'd built for their own protection against fighter strikes. One or two cases you could see the

bad guys. For the most part early on they didn't shoot. Now that started, as the whole effort evolved, that started to change and larger weapons were brought in and deployed against fighters. We got shot up a couple of times real bad I think it was in '66. One of the, well, one of the airplanes was lost over there.

SM: Flying over the Ho Chi Minh Trail?

JS: Yeah, flying over the trail. The 7th Air Force said, "Okay. That's just not the environment for a wandering crop duster against quad ZPUs and stuff like that."

SM: Yes sir.

JS: But our losses would have been too high to be worth the effort.

SM: Now as you were flying over the earlier years when they maintained fire discipline and didn't have the better anti-aircraft weapons like the ZPUs and what not, if you saw enemy soldiers on the ground—now you guys were escorted?

JS: Right.

SM: Would the escorts engage those enemy in the open?

JS: I don't recall it actually happening.

SM: Targets of opportunity if you will?

JS: Yeah. Targets of opportunity may have taken place after we were done.

SM: Okay.

JS: You know when—the air support that we had accompanying us was designed to number one, help in the event of a SAR (search and rescue) requirement, in case one of the airplanes went down.

SM: Yes, sir.

JS: Secondary was to suppress ground fire, but when we were receiving none we generally didn't call for any.

SM: Oh, okay.

JS: My experience over there it was quiet. In fact in '66 towards the period of time that I left, I left in May of '66. I was assigned to do an evaluation of some of the work that we had done previously. I flew in the back seat of an O-1, observation Cessna O-1—

SM: Yes, sir.

JS: We were operating out of Da Nang. We'd fly from I believe it was Route 9, from Da Nang to Tchepone. From there south and we were chugging along three or four hundred feet above the ground and never drew fire. But it was obvious craters were being filled as fast as we could make them with bombs. You could see the slit trenches, but again even for a little O-1 chugging along at 105 miles an hour, 110 miles an hour, 120 miles an hour, it would have been a relatively simple target even for small arms, but it just didn't happen at that time. Now that gradually changed the evolution of the Indochina War progressed.

SM: Okay. Now at what point in your mission planning and also in the training that you conducted with future Ranch Hand pilots, at what point did weather become a major factor? Were there delineators? For instances if the winds were at a certain strength you couldn't fly the mission, things like that.

JS: Yeah, that's true. That was one of the reasons that the missions were generally flown early, early in the day, early in the morning because the probability of lower winds were better at that particular time in the day. Plus it provided an element of surprise. The thinking being to scoot in there at breakfast time and maybe they would be eating breakfast instead of watching for airplanes. Temperatures technically the cutoff point was about eighty degrees Fahrenheit. I think that translates to twenty-six degrees Centigrade or whatever. But in Southeast Asia except during the winter time the temperatures were often at that level or slightly above, even in the early morning hours. The winds were a factor and generally we used ten to thirteen, fourteen mile an hour wind estimate. They were estimate because we didn't have any weathermen on the ground obviously to take an actual, an accurate wind reading. But we were attempting to fly a minimum wind condition so that the drift of the material as it fell to the ground fell where we wanted it to be and not waste the chemical by having it drift. Drift became the problem in some areas, particularly in the war zone D area, where you had rubber plantations. Michelin had rubber plantations that had been there for years going all the way back into the French Colonial period. Rubber trees were very, very susceptible to 2,4-D or 2,4,5-T. It took very, very little mist if you will that could have drifted or did drift and the trees were damaged and killed. There was a program through the U.S. Embassy where the plantations were compensated for lose of trees. But that—if you had

an inversion where it's a real moist still air a lot of the very fine particles that were generated by the turbulence around the nozzle would hang up and become part of the haze and fog. They just remained suspended rather then falling because they were so small. That material once the wind started to blow went to the same place that the fog went so to speak. For that reason care had to be taken.

SM: Yes, sir. But in terms of concentration that would be a very small amount that might be left hanging correct?

JS: I'm sorry.

SM: In terms of the concentration of any kind of mist that might be left hanging in a fog that would be a very small concentration wouldn't it?

JS: Oh, it would be. Yeah.

SM: Would it still have a defoliation effect do you think?

JS: Only on the very more sensitive broadleaf vegetation.

SM: Like the—

JS: Like rubber trees.

SM: Like rubber trees.

JS: Yeah.

SM: Okay.

JS: Rubber trees you could almost breathe on rubber trees with 2,4-D and 2,4,5-T they weren't going to be happy.

SM: Okay.

JS: But that was in a relatively small area.

SM: Yes sir.

JS: Of the country.

SM: Okay. Just out of curiosity, can you give an approximate percentage of the number of missions that you flew that were not early in the morning and would you define that for me too? What timeframe are we talking about when you say most of the defoliations were flown early?

JS: I lived in downtown Saigon. It was about a twenty-minute motorcycle ride out to the airport. We'd arrive showtime at, oh, an hour before first flight or a half hour before first light. If the mission had been briefed the previous day, which it often was we

were airborne at first light or close to it. It all depended on how far the target area was from Saigon or later from Bien Hoa and of course Da Nang because we had a detachment of a unit stationed at Da Nang. Early on in the '60s it was as required for target work, we'd go to Da Nang and the chemicals were already brought up there, but then in later years after '67-'68 the Da Nang detachment became a permanent detachment. Anyway, for the most part we were finished spraying and back at the base by 10:00-10:30 in the morning, depending on the distance from the point of departure to the target area. From Saigon for example to do a mission in the Ca Mau peninsula down at the lower part of Vietnam was about an hour and a half flight en route. In a case like that we would've taken off still in the dark before the sun came up in an effort to be down there essentially at first light or shortly there after. We liked to joke that we were all back in the officer's club by eleven o'clock in the morning. (Laughing) Which in many cases it was true.

SM: Approximately what percentage of your missions, if you remember, what percentage of your missions were flown during those most early hours? If they weren't flown during the early hours was there another part of the day that was better suited to defoliation missions?

JS: There was an attempt—well, in some cases if the target area was close to the airport where we were operating from Tan Son Nhut and later Bien Hoa when the unit moved to Bien Hoa. We would on occasion do turn around missions if the weather was satisfactory. We'd taxi back in having taken off with a fuel load that as adequate so that we didn't have to refuel. All we had to do was pump the tank full of herbicide and then go back out and fly a second mission. I can't recall having done that many times, but it was done not frequently because quite often your targets were just too far away in order to do a turn around. The temperatures by that time and the winds would be up and preclude. A lot of double missions if the target area was a long, you know, a good distance say an hour, an hour and a half away from the airport.

SM: Okay. In terms of the percentage of your missions in the morning?

JS: Almost a hundred percent.

SM: Almost—oh, okay. Wow.

JS: We experienced or we attempted—I was back in the States between, picking up another set of orders, a night mission on a canal network fairly close to Tan Son Nhut.

The unit, I think it was the flight of two and this is covered in Paul Cecil's book and also Colonel Buckingham, but we received quite a bit of ground fire. I don't recall how many times the airplanes may have been hit or may not have been hit. The problem was that if an airplane were to sustain damage adequate to require a forced landing. A forced landing was going to have to occur at night. That's not the best time to do a forced landing in any kind of airplane or in any kind of environment.

SM: Yes, sir.

JS: For that reason the whole idea was shelved. Plus the fact that if somebody's shooting at you at night time you see the muzzle flashes and that's very disconcerting.

SM: Yes, sir.

JS: So during the daytime you don't see the muzzle flashes so you say, "Well, the heck nothing's happening," until you hear a round slam into the side of the airplane. But the search and rescue element in difficulty is the main reason that the idea was shelved. Target identification was sometimes difficult enough in daylight and at nighttime it's even more compounded even further.

SM: Okay. As you were flying for foliation missions did you—what was the worst damage your aircraft sustained?

JS: I believe it was eighteen rounds.

SM: Okay.

JS: Two tires shot out in the process.

SM: Wow.

JS: And an engine shot out.

SM: Now when that happens or when that happened if you made contact did you just cut the mission and get back to base or what was the SOP (standing operating procedure) for that if you made contact?

JS: Yeah. If you took any kind of damage that could result in having to shutdown or prepare to shutdown an engine the first thing that was done was to dump the load.

SM: Okay.

JS: To lighten the airplane because as I think I mentioned before, the single engine performance of the C-123 prior to conversion to a K-model, which was the

addition of the two J-85 jets under slung on the wing. The single engine performance on a C-123 was at best poor. So if a situation developed whether it'd be ground fire or whether it'd be simply a mechanical failure of an engine the first thing that was done was to dump the load, whatever was left, to reduce the weight of the airplane so that the single engine performance was better. Then of course you aborted the mission. You started climbing out and you—depending on your—and you were generally covered and escorted to the nearest suitable airport to land at. It may or may not be back, depending on how far away you were from your home plate, you know, your main base.

SM: Yes, sir.

JS: It may not have been back to that main base. It may have been to—in my case we went into Soc Trang, which was—the Marines were flying helicopters in support of Father Hoa's Chinese group down in the southern Ca Mau peninsula, near the U Minh force. They also had a detachment of T-28s operating out of there as well. The runway length was adequate to make a single engine landing in a 123. You took the—you landed at the best suitable airport that was available depending upon where you were. You were out of the spray business at that point because you've dumped the load.

SM: Right.

JS: Chugging along on one motor.

SM: Now when you lost your motor, do you recall about how much of your load you had left?

JS: No. It wasn't a whole lot.

SM: Okay.

JS: Because we were on about the fourth pass as we were working laterally across the target area. I can't remember. We were pretty close to being empty when this situation occurred, but we pulled the dump lever anyway just to make sure it was empty and then started stumbling along. Fortunately we were heading right for the South China Sea. As soon as we passed over water then we knew we weren't going to be shot at anymore obviously.

SM: Was this the only time you had to dump your load?

JS: In my particular case, I think it was the only time I ever had to dump.

SM: Okay.

JS: I had to—I lost an engine a couple—I lost an engine I think on one other occasion, but it was just a mechanical problem. I think that we'd already finished the spray mission. The engine started, for whatever reason you know mechanical reasons, it started cutting up so I just went ahead and shut it down. If you shut a reciprocated engine down on first signs, assuming you have performance on one engine, if you shut it down early quite often you can save an engine change.

SM: Oh, okay.

JS: Because the engine won't start to deteriorate internally to where you end up with a lot of metal in the filters, in the oil filters and everything, which was an automatic engine change when that happened. So if the circumstances are such that you can go ahead and shutdown early without creating a safety of flight situation, well I was always inclined to shutdown early in those circumstances. Hopefully you end up changing a cylinder or something like that rather then ending up having to change the whole engine.

SM: Okay. Was there anything else that you wanted to discuss about the Ranch Hand missions that you flew?

JS: No. I think that's pretty much it. I think the point of you know the fact that we—the whole knowledge of how to do it was all by OJT if you will. That OJT was passed along during the training mission or during the training spray school at Hurlburt prior to the time that I got into the T-28 business.

SM: Okay. Now did you want to discuss the Ranch Hand Association involvement in the Air Force study now or do you want to wait until after we get finished with our discussion of Southeast Asia?

JS: Yeah. Let's hit the Air Force health study at the end.

SM: Okay.

JS: If that's okay with you.

SM: Absolutely. Absolutely.

JS: Okay.

SM: Well, then let's go ahead and discuss your next—well, first of all you left Southeast Asia, you left Vietnam in 1966.

JS: Yeah. May of 1966 I was assigned to Hurlburt Field as an instructor.

SM: Okay. You instructed pilots from '66 until when?

JS: Until 1970. Of course I'd been flying the airplane for eleven years. I was aware of the Project 404 program in Laos. In order to become involved in that I had to transition into the T-28 D-model, which were the Navy trainers that had been rebuilt, rehabbed with gun pods and machine guns added to them. They had been provided to the Vietnamese Air Force in the early days and they were also at that time being provided to the Royal Lao Air Force as well as a few to the Royal Thai Air Force. So I kinda boon-doggled my way into the T-28 program. I left the training squadron. I was assigned to the standardization and evaluation C-123 pilot for the standardization group under the wing. We would give check rides to instructors to ensure level of proficiency on their part and also complying with the syllabus, the training syllabus. That was largely a paperwork business. I would rather fly then do paperwork. Anyway, I managed to convince a couple of people to let me start getting checked out in the T-28. I did and became an instructor in the T-28. The mission of Hurlburt in the T-28 program was to train pilots in the T-28 both transition and tactical, tactical included guns, strafing, dropping bombs, napalm and all this type of thing. Those pilots were assigned to Southeast Asia, but they were going to the water pump operation at Udorn. The water pump operation in Udorn, which was started in 1964, was created to train Lao pilots to fly T-28s, which was their mission airplane once they got back into Laos. In many cases we were training, the Americans were training Lao that had never flown airplanes before. So their job was basic pilot training, if you will, at Udorn in addition to teaching them how to drop bombs and shoot bullets and all that type of thing. Our job at Hurlburt was to provide the cadre for those instructors who subsequently go to Udorn for a one-year tour to train Lao pilots. In addition, the manning of Project 404 came from the instructor pilots at Hurlburt that were instructing pilots that were going to water pump that went to Udorn.

SM: Okay.

JS: My first assignment was to Laos, TDY, as an AOC commander, Air Operations Commander. My first assignment I had a sickness at home that I had to come back on emergency leave and that was cancelled, although I'd only been over there about a month. My second tour was in Laos, TDY, was at Pakse, which was the headquarters of the military region foreign in the southern part of the country and was advisor to the

Royal Lao Air Force wing commander, Lt. Col. Quang in this case. A typical AOC consisted of the one officer, the AOC Commander, generally a line chief so to speak, senior mechanic, usually a master sergeant and a radioman, aircraft radio, and a gun plumber, which was slang for bombs and machine guns, a supply technician and a medic. These individuals were to provide guidance to the Lao mechanics to make their job a little bit easier. In the case of the AOC commander to provide, if necessary, for the most part in MR-4 where I was located, to provide some tactical guidance. It was also our job, the AOC commander's job, was when an operation by a force to the ground forces in a particular military region was to come up with recommendations to the air attaché office for fighter support, logistical and fighter support. We also monitored aircraft flying time so that they went to their hundredth hour inspection in Udorn on time and increased the maintenance factor. That also included rotation of the O-1 forward air control airplane. Each of the military regions had, depending on the tactical situation, a number of Raven FACs (forward air control) assigned to that military region. They were operating under the AOC commanding, the forward air controller. We were responsible directly to the air attaché's office in Vientiane. Then we were tied together and tied to them was voice radio, ordinary telephone and encrypted Teletype if security needed to be maintained on a particular subject matter. That communication link was maintained by the Army portion of 404.

SM: Okay.

JS: They were the ones that operated the Teletype, the secure Teletype link between the different military regions and the attaché office in Vientiane.

SM: Quick question. Why do they call that earlier—the projects—program Water Pump? Do you know?

JS: I don't know. It's just a name like Ranch Hand.

SM: Okay.

JS: Most of those names that were applied to Farm Gate, Water Pump, and all the rest of them didn't have any hidden meaning so to speak.

SM: All right.

JS: Just somebody thought them up and some staff officer said that sounded like a good name. That's the way it went. It didn't have any—

SM: I was just curious if there might have been. Also would you explain what project 404 was?

JS: Project 404—you have to keep in mind that the entire Indochina effort was one of involvement or one of transition, escalation. It evolved and was modified as events changed, as the nature of the war changed. Either in tactical standpoint or political standpoint there was—in a changing process, which we start in 1954-'55—anyway. The American—and this is best brought out in the book. I'll get the title. In fact, I brought it with me to re-read a couple of times, *Backfire*. The name of the book is *Backfire* by Roger Warner, I believe his name is and I can confirm that. But the approach that the American government took in Laos—Laos was a "neutral country." The effort to help the Lao government was kept at a very low key, low visibility in order to satisfy Suvanna Phuma, the prime minister, that neutrality on his part was being maintained by all agents, by CIA, by the Air Force. Project 404 probably and I asked Jerry Klingerman who was one of the early AOC commanders in the 1966 timeframe about this because I was hoping one day somebody would write the history of 404 before we all die and before all of the material gets lost. But 404 was an effort under the attaché office, either the Air Force attaché or the Army attaché force or office, to assign individuals to the attaché office to act as advisors so to speak to the Lao military ground forces and air forces, but keeping the silhouette as low as possible. So we were all in civilian clothes. Our Lao counterparts knew exactly what our rank was and that type of thing. There was no mystery to them. But when you walked around the street you didn't see a bunch of GIs in uniform. So that the façade could be maintained. For the most part the Russian and the Chinese that were in the, and ICC (International Control Commission) team members and this type of thing, they essential turned a blind eye on our presence because it was to both sides, the good guys and the bad guys side, to allow this façade to continue. So that 404 in total numbers, in project 404, working directly for the Royal Lao Air Force or the Royal Lao Army, forces Army in Royal was generally in an advisory capacity in the same way that we had in the early days in Southeast Asia and Vietnam. Well, even in the later days we had American advisors working with the command element of the Vietnamese Army and the Vietnamese Air Force. That was the mission of Project 404. In addition we had our own intelligence element of 404 located at the attaché's office

with intelligent NCOs (noncommissioned officers) assigned to the AOC in the five different military regions. They were providing the Air Force intelligence office, which is upstairs in the attaché office in the actual building, providing them with information that they received for subsequent evaluation. There was a lot of sharing, a certain amount of sharing, between the agency and the Air Force. It was done in necessity. The intelligence office or intelligence portion of 404 in Vientiane at the attaché's office on the second floor, one of their responsibilities was also to evaluate and recommend strike coordinates for the B-52 and F-111 when they were employed in the 1961-1962 timeframe around Long Tieng when it looked like Long Tieng was going to be lost. So they had a—they were busy. They were taking special intelligence sources and coming up with boxes if you will, rectangular boxes for the B-52 strikes. So it was—and it grew in numbers. They started in 1955 until—I believe our total 404 commitment in 1973 when the cease-fire was assigned and the protocols were signed, we were about 140 men.

SM: A hundred and forty? Is that what you said, sir? Hello?

JS: I'm sorry.

SM: Did you say one-four-zero?

JS: Yeah, about 140.

SM: Okay. That was at both for the air attaché's office and for the Army?

JS: We were very, very—it was a skeleton operation as you might imagine. The numbers of personnel were approved by the Lao government, but at the same time the philosophy, the ambassadors and state department of course and the military and the Air Force, was to get the job done with the lowest and the fewest number of people.

SM: Okay. You mentioned that there were some interagency activities between 404 personnel and the CIA. Did that include interactions with Air America personnel flying operations in Laos?

JS: Well, Air America was an airline and a very good airline. They provided air transportation as necessary for all agencies with the U.S. mission in Laos. For example, if it were a USAID (United States Agency for International Development) rice run, you know to provide rice for refugees, that mission was charged to USAID. If it was a mission, a flight let's say on a Baron or a Volpar to take a number of Air Force people to Saigon for a meeting with 7th Air Force. That sortie and those hours was charged to the

Air Force. If it was a support mission for the irregular program, moving bombs and bullets or people—not bombs and bullets, but bullets and mortar shells for the irregular forces in support of the Lao ground forces. That mission was charged to the agency. Air America and Continental—Continental—those two airlines if you will—Burtinson had a small operation going on there also, but it was relatively small. They were the air support in lieu of American logistical air support for Laos. Their operation directorate, if you will, in addition to their own people was air-ops, which was an office of the Central Intelligence Agency. They were the ones that tried to divide up everything to meet the requirements on a day-to-day basis for the work being, you know, for the flights that were needed to provide for logistical support for whatever agency needed it. So all the ordinances brought into Laos had to be flown in, the artillery shells, five hundred pound bombs, rockets, and machine gun bullets and all this type of thing. That was all brought in by air.

SM: Okay. Now how well did Project 404 personnel interact with CIA, Air America, Continental Air Services, and other American groups working in the same areas?

JS: I think they, you know—I know in my experience in military region four we received—we had a very strong USAID representative for the military region. I've forgotten his name now. He's a hell of a guy. We had a USIS (United States Information Service) information service officer that was stationed in Pakse at that time. The chief of base for CIA was a super guy. We received a small country team if you will. We received a very nice congratulatory message from Ambassador Godly pointing out or recognizing the fact that we were working so well together. Now that varied. In some military regions, there's a lot personality involved. There's a certain amount of, like in any other agency or any other bureaucracy, there's a certain amount of one-upmanship that was attempted, that type of thing, interagency competition. For the most part looking at it, the whole effort, project momentum starting in the '50s, our entire effort in Laos, again the best book is *Backfire*. It really takes it through step by step. We spent—the objective that real estate lost at the end of the war, the boundaries if you will at the end of the conflict in '74 when cease-fire held and all of that, everybody was withdrawn, Air America was pulled out, case officers per agency were pulled out, 404 was pulled out, at

that moment in time the order of battle in the real estate was pretty much what it was in the early '60s. I like to claim that we cost or caused the greatest loss to the North Vietnamese dollar-wise by far less money was spent, than was spent in South Vietnam to achieve what was achieved. That was generally the objective in Laos was simply as best that we could, as best as the Lao government could while being augmented by the irregulars, Thai soldiers, Thai infantry soldiers—to maintain, obviously to help prevent excursion or expansion into Thailand, but also to maintain the status quo. It tied down the North Vietnamese to a great extent. The Lao government—the steel tiger area and rolling thunder area, not the rolling thunder that was North Vietnam bombing, but the Steel Tiger program to try to interdict the Ho Chi Minh Trail, that effort was essentially totally independent of what the Royal Lao government was doing. The Royal Lao government made little or no effort to penetrate into the Ho Chi Minh Trail area. They'd already written that off. That responsibility was Saigon, 7th Air Force. So that in the panhandle of Laos you could almost draw a line down the center of the panhandle and anything to the east of that line RLG, the Royal Lao government, had already written off as lost, the Attapu and that type of thing because they had no capacity at all to interdict along the Ho Chi Minh Trail. It was only in the eastern portion of Laos and you know the Plain of Jars in the MR-2 and then arching up towards Luang Prabang. South of that line was where they were more intent on holding. That was the essentially our, America's objective as well. But in the process of, particularly on the Plain of Jars in that area of MR-2 we were tying down the efforts by Vang Pao, the irregulars, the air strikes that were being conducted. We were tying down a couple of North Vietnam divisions, which had there not been a conflict there those two divisions would have been in South Vietnam. I like to equate it as Laos was for the North Vietnamese was kind of a training effort on the part of their infantry. They'd get them battle wise and then shoot them south. The 404 program was an excellent, excellent program, the kind of program that will never happen again. It was unique to the Indochina War because of the politics of Laos and so forth.

SM: That's why you don't think it would happen again?

JS: It's hard to, kind of hard to envision. Well, I don't know what's going on in Columbia to what degree, but it doesn't sound like anything to the extent—there could be some similarities, but it was just unique to the Indochina War.

SM: Were there any other major accomplishments or operations of Project 404 that you'd like to discuss?

JS: No. I think the main—organizationally as it evolved the fact that you had the AOC commander, the forward air, the Raven FACs that were working for him directly responsible to the air attaché office…much of the targeting was based on information received from the agency case officers who were working with the irregulars and working with the Royal Lao Forces. In a book like *The Ravens*, one gets the impression that the Ravens were just independent working for the agency type of thing and that wasn't the case at all.

SM: They were working—basically they were working through you.

JS: That's right. I wrote their ERs. Their efficiency reports were written by the AOC commander. If they screwed up we fired them

SM: Okay. Did that happen very often?

JS: Yeah. I had a guy out of in-country in four hours.

SM: Wow. What were the circumstances surrounding that?

JS: He landed in an airport he had no business landing at. He landed okay and crashed the airplane on takeoff because it wasn't long enough, ended up in a minefield.

SM: Oh my goodness.

JS: Fortunately the mines didn't go off and we retrieved the airplane. We had to chop it apart to get it out of there and had to rebuild the airplane, but he was out of the country in four hours. He was in Udorn.

SM: This was a bird dog?

JS: Yeah an O-1.

SM: Any other similar incidents or other times when you rapidly removed someone from the unit?

JS: That's the only one I did.

SM: Okay. What was the biggest hurdle you faced as the commander?

JS: I was—most of the AOC, all of the AOC commanders were lieutenant colonels. I was the only AOC commander that was a major. So I was pretty junior. In fact, I hadn't been a major very long. I don't remember exactly when I got promoted to major, but I look young, or did then. Because I was a major my chief FAC was a major, well one of my later chief FACs who later got killed. As a major I was an advisor to a Lao Air Force lieutenant colonel, a hell of a nice guy. He was a wonderful, wonderful individual and a very, very easy individual to work for. That was a challenge. The other—the chief of USAID, which essentially was the chief of military region mission if you will, was the country team leader of that particular military region. They were all quite senior to me as well. The Army attaché was a lieutenant colonel. I was kind of junior so that I had to kind of feel my way along and respect their positions. It made for a bit of a challenge from that standpoint, but it all worked out in the end. The Lao—by the 1972 and 197—by the 1971 and 1972 timeframe, the Lao T-28 operation, the fighter operation, didn't need a lot of advice. They knew how to drop bombs. They knew how to load bombs. They knew how to maintain their airplane. Our mission was largely an oversight mission. As years went by there was less and less advice that needed to be given. Our main task in the field was monitoring the operation and trying to make sure that they received the support from U.S. Air if U.S. Air was going to be needed and often it was. Often it was desirable. Laos was almost low man on the totem pole for USAF sorties as it applied to South Vietnam, North Vietnam and so forth. But just try to smooth things out that was the biggest task.

SM: Okay. So what else did you want to talk about with regard to Project 404?

JS: Well, one of the things that's important to remember about 404 was that—and not only 404, but the policy of all individuals, the agency case officers as well as the military portion of 404. There was a general policy all through the years and for the most part followed that case officers working with the irregulars were not allowed by embassy regulation to act as combatants, if you will, because our government did not want to have to face the problem, political problems associated with the loss of Americans whether they be agency people or Air Force people. Case officers for the most part, there were a few exceptions. Return to Vientiane at the end of the day or return to their military region headquarters at the end of the day. In other words they didn't stay out in the field

at night so to speak. There were exceptions to that of course, obviously. The Air Force was under the same rule, State Department rules, U.S. government rules, which included the agency. People get the impression somehow the CIA is working all alone and it's not the case at all. But anyway, the AOC commanders were not allowed to fly combat with a Lao pilot. In other words I couldn't go out on a fighter strike with a Lao T-28 pilot. If I were caught doing that I'd be out of the country in four hours too.

SM: If you were caught by the air attaché's office?

JS: That's right or the word got to the air attaché's that you know, "Spey was out there flying combat." There was no need to do that. We were permitted, as AOC commanders, we were permitted to fly transition with some of the young pilots that graduated from the school in Udorn and to do an evaluation on their transition capacity, but the Lao—particularly I know for sure in military region four, the Lao pilot would take one of their more experienced pilots and put them with one of the new pilots for the tactics, dropping bombs, rockets, and napalm, and that type of thing. They would take care of that element of it. The only flying that we were permitted to do was transition at the local level, at the Takhli Airport and ferry airplanes back and forth between Udorn for maintenance, to get them into maintenance and pickup another one that was ready to be returned to that particular wing. That type of flying was authorized, but we weren't allowed to go out and drop bombs. A few people did. One was killed in the process. It was an embarrassment for all concerned. One was fired because he got caught, but the idea was to minimize the loss of Americans both from, purely from the loss standpoint but also for the political implications that may have occurred. If the North Vietnamese could all of sudden say, "Hey. We've got Americans out there and they're fighting because we just captured one." That type of thing.

SM: Yes, sir.

JS: With the exception of the forward air controllers there wasn't any way you could get around that. Raven FACs were killed obviously in the line of duty.

SM: Were any every captured?

JS: Not that we know of for sure, during my—in my memory. I can't really say positively, but my recollection that I don't think we had a confirmed capture of a Raven.

SM: Okay.

JS: But that would have to be corroborated by—oh I'm not sure what kind of sources, really trustworthy. I know the book *The Raven* is not particularly factual, but that was one of the elements stressed and stressed often to all of us, to all of the agents.

SM: Okay. When that one pilot was killed, when he was flying in a mission, an operation he wasn't supposed to be flying in, did that affect the chain of command in any way? Did somebody have to bite the bullet? Did someone else have to get fired as a result to that particular individual breaking the rules?

JS: No. No one was fired.

SM: Okay.

JS: It was an embarrassment to everyone in Laos and it was totally unnecessary. I don't want to go into any details. I knew the individual very, very carefully or very closely. He'd been in the Ranch actually. I think I mentioned to you that there was a name of the FAC Memorial,

SM: Yes, sir.

JS: Yeah. That was an error, but that was the individual.

SM: Okay.

JS: But I don't think we don't need to go into any—you might want to scratch that.

SM: Okay. Do you want to take a minute? Now just out of curiosity. When you were in Laos, how much interaction with the Lao civilians did you have, the Laotian civilians?

JS: Well, at restaurants and socially that was—the wing commander because he out ranked me—I'm kind of rank conscious and I still am. Jim Reckner keeps raising hell when I call him Doctor Reckner. That's just me.

SM: Yes, sir.

JS: I didn't socialize with my wing commander in Pakse. I was invited to the military region commander's receptions and what not and went as part of the country team if you will. But you know, in restaurants and—I always managed. I guess it was just my personality. I enjoyed the people. I never—I'm very poor at learning languages. The nun that tried to teach me Latin promised to give me a C if I promised not to come

back for the second year. (Laughing) Foreign language to me is—but I'll tell you what I'm the best pigeon Lao. What's the game you play trying to act out—?

SM: Charades?

JS: Charades. I'm the greatest charades player in the world. (Laughing) The other element that came into play both in South Vietnam and well all of Indochina. The folks that we worked with to whatever degree, the Vietnamese or the indigenous people, their desire to learn English, recognizing that English was the world's language, if you will, and that their language was so limited in the economic world that they wanted us, their advisor, to help them with English. If you follow what I'm saying.

SM: Yes, sir.

JS: We had some fellows that were able to pick up languages, that can pick up languages easily. But for the most part they wanted to learn, this was certainly the case in Laos and certainly the case in my experience in Vietnam, to learn English because they recognized the importance of that language nationally and the limitations in their own language, which greatly limited as far as dealing internationally and that type of thing. They did the same thing during the French involvement during the colonial power. They wanted to learn French because—and all the senior, senior Lao officers all spoke French from the implements that the French gave and for the same reason. My maids and our maid that we had in Laos after my wife and I were married there we just had a ball. Again, they were anxious to learn English.

SM: Okay.

JS: But we learned a lot from them.

SM: Did you find that you got along better with Laotians versus Vietnamese or the other way around?

JS: No. I think it was about the same. I had no problem with getting along with the Vietnamese or getting along with the Lao. It was just a matter—I think the quiet American type thing in Graham Greene's book, if you're just honest and straight forward with them everybody gets along. I just never had any problem overseas. I've never been to Paris. I hear that's a little different, but I think some of that's made up too.

SM: Yes, sir. Okay. Was there anything else that you wanted to talk about with regard to Project 404?

JS: No. I think that—other than to emphasis the fact that it was the whole Lao experience on the part of the United States was totally unique. I think Jim Reckner indicated that there's one of your folks that's interested in Laos.

SM: Yes, sir.

JS: I hope I have an opportunity to talk with him a little bit because it's very, very unique. The CIA had a reunion here about three months ago up in Williamsburg.

SM: Yes, sir.

JS: I recorded—I have the tape recording of the reunion and the speeches that were made by three of the—well, Bill Lair for one, Hugh Tovar, and Shackly were just outstanding speeches. I think Spayet wrapped the whole thing up so nicely. I'm going to make sure that you all get a copy of that tape.

SM: Thank you.

JS: Because it—I asked immediately for it. In fact when they introduced Bill Lair I'm sitting up at the other end of the room and I just snapped to attention and started clapping and everybody looked at me and slowly rose to their feet and started clapping also. What he had to say was just really super. No, that pretty well wraps it up.

SM: Okay. When you left Laos and came back to the United States this was 1974. Things have pretty much wound down.

JS: Well, from 1974 I went to Japan.

SM: Oh, okay.

JS: As an advisor to the Royal Thai Air Force attachment.

SM: Okay. So you didn't come back.

JS: Yeah. I spent two years flying with this Royal (Thai) Air Force attachment, which was kind of a symbolic gesture on the part of the Thai government since they were members of the United Nations command. They maintained a two-airplane contingent with about forty Thais. We had six American advisors, two pilots, a couple of load masters and a couple of flight engineers. These pilots were high ranking dependents that were assigned to Japan for a six month tour. I think it was probably the only TDY location that the Royal Thai Air Force maintained anywhere in the world. I don't know that that's for sure, but it was a real plum for those kids to come up and serve in the detachment. Our job, there was myself and a lieutenant colonel who I had known for

years, our job was to teach the pilots to fly the airplane. They were pilots, but most of them were fighter pilots. I spent two years there until they finally—the Thai government decided they couldn't afford it any longer. We deployed them back to Bangkok and I spend the next six months in a staff job before I retired.

SM: Okay.

JS: Moved back to Fort Walton Beach in the spring of 1977. That's when all this Agent Orange business started.

SM: Okay. Why don't we go ahead and discuss that then?

JS: Okay.

SM: The Agent Orange study done by the Air Force, your part of that along with over a thousand other Operation Ranch Hand personnel. Is that correct?

JS: That's right.

SM: Go ahead and discuss the genesis of that and your involvement in it.

JS: Okay. I'll just outline it and you can come back with questions. In 1977 the association asked that I conduct a '77 reunion. It was about this time, about 1976-'77 when we started hearing all of these unsubstantiated claims about health problems, dioxin, and Agent Orange. Every health problem known to man was mentioned at one time or another over the next five or six years. At the reunion we said, "Hey, what are these guys talking about, Agent Orange?" Bill Curtis in Chicago, he was the reporter for CBS (Columbia Broadcasting System), had come out with a special, "Agent Orange: the Deadly Fog," I think that was the title of it. This kind of started the snowball of this whole Agent Orange question. It became very political because a lot of untruth is then created about the reception Americans received, American military received when they came back from Vietnam, these stories of being spat on and all this type of thing. I certainly didn't experience it. When I would come through San Francisco International Airport I couldn't by a drink. They'd say, "Where you headed?" I'd say, "I'm just coming back from Vietnam." "Oh, have a drink." I don't buy a lot of that. I think it's been way overdone. But anyway—

SM: Now just real quick on that. When did you come back through San Francisco?

JS: All during the '60s, up until '67, '66 rather.

SM: Okay.

JS: Which granted wasn't the time when a lot of the military units that had been assigned to Vietnam were rotating.

SM: I was going to say that. Your time was kind of early in the war.

JS: That was in the earlier part of the war.

SM: Right. Most of the stories that I've heard occurred after '66, '67, '68, '69 timeframe.

JS: Right. Right. Anyway. All of these stories started hitting the press and the press, just snowball kind of started with Bill Curtis and then just started rolling. We're at our reunion in '77 and some of the guys were saying, "What is all of this crap?" That was our job. We touched the stuff everyday. We smelled it everyday. Our mechanics were changing nozzles and this stuff was dripping on their hands and changing pumps and—we're not dying. We're just as unhealthy or healthy as everybody else. Anyway, a lot of congressional people, Tom Daschle, Senator Daschle, he was a representative at the time. He started making this Holy Grail type of thing and others for political reasons. Finally the Air Force, the Air Force Surgeon General after a couple of hearings in Congress made the promise to Congress to conduct a full scale epidemiology study on the Air Force Ranch Hand cohort and the match comparison group cohort. Both groups served in Vietnam. Both groups flew airplanes in Vietnam. We flew the 123 in the defoliation business, but comparison group were all Vietnam veterans who had flown C-130s in the airlift mission in Southeast, in Vietnam. Matched one for one as closely as possibly in age, race, age, background so that we weren't going to be comparing apples and oranges. It was going to be a long-term study to try to determine if working with the herbicide had any measurable change in health outcome and mortality outcome of both groups. We've undergone, so far, five exhausting physical examinations rivaling an astronaut physical, a physical that would cost you at Scrip's Research Institute about four thousand dollars.

SM: Wow.

JS: You get an annual physical, I don't know what it cost you Steve, what 250 to 350 bucks? Depending on—

SM: Right.

JS: Depending on how much lab work your doctor decides you need.

SM: Exactly. Exactly. Yeah.

JS: He'll pat you on the ass and gives you an EKG and says, "Okay. Go at it again for another year." Ours run about four thousand.

SM: Wow.

JS: They measure the time it takes electricity to go from your hip to your big toe. They've ultra sounded our testicles. They've measured our reproductive capability. The psychological testing was scary for one. One guy found out he was schizophrenic.

SM: Oh my goodness.

JS: Anyway. Heart, lung—there's something like eighty end points that deal with liquids in the body, immune system. This is—the last physical of this twenty year study will be occurring in the spring of 2002. That will be the last one. The first outcome because there was lots of claims about birth defects, well, 1.5 percent of all children born in the United States have one form or another of birth defect. Most people don't recognize that, but this doesn't mean that all birth defects aren't the same. Some of these are minor. My son has got a small curvature of the spine. So do I. There was a reluctance—I'm sorry. The Air Force on—this study is designed to minimize the amount of self reporting because it's known in the epidemiology business and the health business that if you ask someone particularly if they've listened to all this propaganda about Agent Orange, "Oh, yeah. I've got a problem with that," because there's a tendency for people—in some cases, some individuals, they're motivated by the possibility of compensation and that's the nastiest way of putting it, but it's the rock bottom way of putting it. They're hoping to get compensated some how. The Air Force—the protocol of the study, the documents that detail the methodology of the Air Force health study underwent about a year and a half of pure review and modification to ensure that it was the best hunk of science that the scientific community has ever done on a human population. That fact is recognized in the scientific community today. It's the best bunch of stuff that's ever been done. The health outcome of children during the baseline study in 1982 showed that the Ranch Hand group had more birth defect problems associated with offspring that were conceived after Vietnam than the comparison group, but it was based on self reporting. The scientific review committee under the National Academy of

Science said, “Hey, wait a minute. If you publish that now that information is based on self-reporting. Go back and get the hard copy records on all the children that were born.” Well, you can imagine the job that that was.

SM: Yes.

JS: Going back and retrieving birth records for some sixty-seven hundred births that occurred in the Ranch Hand group and the comparison group. Once that material was all plugged into the computer it took about four years for it to be published and our children were just as defective as our comparison group.

SM: No more so?

JS: No more.

SM: Okay.

JS: They’re just as screwed up as our comparison group are.

SM: Or the other way around?

JS: Or the other way around. They’re just as healthy.

SM: Yes.

JS: The numbers are there. A lot of people don’t want to believe it. That’s their prerogative. Our health after twenty years or sixteen years now, seventeen years of investigation shows that we are dying at the same rate as our comparison group who are Vietnam veterans. This is important, an important thing to keep in mind because the VA (Veterans Affairs) has already come out and Congress has already come out and said, “If you were in Vietnam you were exposed to Agent Orange.”

SM: Right.

JS: Okay. Our comparison group was in Vietnam. The element that really put the final blow into this article, into this study was the fact that once it was determined in the laboratory that we could measure the amount of dioxin that’s in individuals’ blood by extracting the blood and analyzing it for dioxin content. The first year numbers showed that the Ranch Hand group in parts per trillion was approximately ten times higher then our comparison group.

SM: Wow.

JS: Yet our mortality rate was the same and when you analyze our morbidity current state of health they were the same. The birth outcome, the health of our children

and offspring conceived after Vietnam, were the same in spite of the fact that our dioxin level was an excess of ten times higher. Dioxin degrades or is discarded from the human body at the rate of approximately seven years it goes down by approximately one half. That varies depending on the fat content of the individual. Our comparison—our dioxin level is now approximately four times higher then our comparison group.

SM: Okay.

JS: Yet all these numbers are still the same with the exception of diabetes.

SM: That's type 2 diabetes?

JS: Say again.

SM: That's type 2 adult onset diabetes correct?

JS: That is correct, type 2 onset diabetes. There is an increased risk—and this is important. You don't see it covered that much. The increased risk in onset type 2 diabetes occurs in the Ranch Hand cohort whose level of dioxin currently still in their blood is in excess of thirty parts per trillion.

SM: Do you know what percentage of the Ranch Hand cohort that is?

JS: No, but Dr. Nahalley can tell you.

SM: Okay.

JS: I can—just a very small percentage, but I can't recall the number.

SM: Is it less then ten do you think?

JS: I don't know.

SM: Okay.

JS: I simply don't know, but I know the number is small. The human background level per dioxin as a result of this study we've learned that the human background level per dioxin, everybody, you, Dr. Reckner, all the folks there at Texas Tech, city of Lubbock, is about anywhere from three to six to seven parts per trillion. Everybody walks around with that. It's good stuff. It's part of nature.

SM: Yes.

JS: Our comparison group the average is 4.7, which is right along the same category as the human background level. The onset diabetes there are a couple of other chemical differences in our blood, in the blood of those with the higher dioxin content

that have no—they're not doing anything to the body, but there's just a modification in chemistry that measures detectable. That's the only thing that's been found so far.

SM: Wow.

JS: Our level of dioxin of course has depleted now on the average down to about four times higher then our comparison group.

SM: So it's anywhere between sixteen to twenty?

JS: If we live long enough why it will be back down to background level.

SM: Right. Well, just out of—well, this is an interesting subject. In light of the recent coverage of the study that was released to the press where they—now the press has jumped on it as well, it's a blanket. If you were exposed to Agent Orange and if you have adult onset diabetes then—

JS: Then you ought to be compensated.

SM: Yeah, you ought to be compensated. The VA's already jumped on the band wagon. I don't know if you have access or if you subscribe to any kind of veteran's email communication lists and things like that, but it's a big buzz out there in the veteran community now.

JS: Of course it is. The Institute of Medicine came out recently and said, "Diabetes possible," and VA's probably going to—but that's politics. That's not science. That's the reason that the Air Force has been very, very careful. I've worked with them. The way we got involved in it was when the surgeon general made the commitment to Congress about conducting an epi-study on a bunch of us, the association, we said, "Okay. We've got names, rank, serial numbers, old orders, military assignment orders, a whole flock of guys." So I wrote a letter, as president of the association, I wrote a letter to the deputy surgeon general. I said, "Sir. We'd be more then happy to provide this for you in an effort to try to identify the Ranch Hand group that served, the people that served in Ranch Hand through the years." They wrote back and said, "By golly do it." So we just boxed up all that stuff and that became—we were also able to provide them with the unit designation that the unit went through during the evolution before it became a squadron.

SM: Okay.

JS: They had, Brooks Air Force base had—we went down there actually to make a presentation to the original sciences, one of which is still in the studies Dr. Michalek.

SM: I'm sorry, doctor who?

JS: Joel Michalek.

SM: Michalek?

JS: Yeah.

SM: Okay.

JS: He's the only one that's still there.

SM: Could you spell his last name for me sir?

JS: Ah—I can't, but I'll send it to you in email as soon as I get home.

SM: Okay.

JS: No. I'll tell you where you can find it.

SM: Where's that?

JS: Do you have the Air Force health study, Brooks Air Force Base on the Internet.

SM: Yes, sir.

JS: Okay.

SM: They have a website for the study?

JS: They have a website.

SM: Oh, excellent! Okay. I'll find that. Thank you.

JS: You can find it and Dr. Michalek's name is right there and Lieutenant Colonel Vernum name. I can give you the 1-800 number.

SM: No that's not necessary. I'll find it on the web, thank you.

JS: Okay. The website has got everything there.

SM: Okay.

JS: Anyway. It's Brooks Air Force Base in San Antonio Texas.

SM: Yes, sir.

JS: But—I forget what I was talking about.

SM: Well, you had mentioned that the papers, the documents that you had sent provided all the information down to—

JS: Oh, yeah. Brooks had to go to St. Louis and go through records and tons of records to try to identify by unit organization the 1,285 folks that served in Operation Ranch Hand. It was an enormous project. A couple of about four of us volunteered to go down to Brooks at our own expense and sit down with the scientist, Dr. George Lathrod and Bill Wolk and Dr. Michalek, Dr. Almony's the original—and Nurse Moynihan, the original five and talk about the Ranch. In other words just show them or discuss with them how the mission was flown so that it might better answer some of the questions that they were going to have as they got into this study. We took down—we took slides and motion picture films and examples of the missions we had flown and this type of thing and then worked, you know, we worked closely with them all through the years. Encouraging participation in the study and the participation rate was eighty percent repeat, which is unheard of in an epidemiology study particularly one of the length that this one is. Which makes it from a science standpoint makes it even stronger. Once you get the VA, once you get Institute of Medicine's decision, that's all politics.

SM: Well, what do you think is behind the VA in terms of—okay. Based on what you've said about the study, the Air Force study, there is no increased incidents of cancer, Hodgkins, non-Hodgkins. There's no increased incidents of chloracne.

JS: Not at all.

SM: No increased incidents of, what is it, about a dozen different illnesses that the VA currently lists as Agent Orange related illnesses that all veterans who served in Vietnam if they suffer, and now including diabetes, if they suffer from any of those they can apply for VA benefits. What do you think is behind that?

JS: Politics.

SM: It's all politics?

JS: Sure. It's all politics.

SM: Okay.

JS: Absolutely.

SM: Okay. Now—

JS: I say that not as president of the association.

SM: Yes, sir.

JS: Okay. I'm saying that as Jack Spey.

SM: Gotcha.

JS: I think that's important to—

SM: Absolutely.

JS: Because the association has never and will never get involved in the politics of this issue.

SM: Okay.

JS: We're simply—when we have our reunions, we got pictures and memorabilia and we do a lot of drinking and a bunch of war stories, but you don't hear people sitting around jaw boning about this.

SM: No.

JS: There are a couple—there's a couple of our people that believe that we harmed ourselves, but you can't blame them for all the crap that they've been listening to for the past twenty years, twenty years plus. There's people that are motivated simply by compensation and I've said that publicly before. It's politics once it—Institute of Medicine is politically motivated. What they should have said was that everybody that has a dioxin count of thirty parts per trillion and above might be considered for compensation.

SM: Yes, sir.

JS: Because that's the only place that it's found in the Ranch Hand group, but they didn't say that.

SM: No, no. Well—

JS: So what they're doing is—and the Air Force is not going to bend its science. They simply lay out the numbers and what ever Institute of Medicine wants to recommend to the VA, which is the way the law is written now because Congress didn't have enough guts to deal with the question before. I know I testified before Congress a couple of times.

SM: About this issue?

JS: Oh, about the issue. Yeah.

SM: Okay.

JS: So they finally came out and said, “Okay. We’re going to get out of the science business. We’re going to give it to IOM (Institute of Medicine). IOM will make recommendations to the VA. The VA can do with it what it wants.”

SM: Wow.

JS: So it’s strictly politics.

SM: Okay.

JS: The Air Force very nicely has stayed out of it to the greatest degree and extent possible. When SAIC (Science Applications International Corporation) comes up with the dean count and numbers, they all sit down and take a look at it and they write it up and lay it out there. Whatever the politicians want to do with it that’s up to them.

SM: I’m sorry. What was that acronym that you just said? SAIC?

JS: SAIC. Yeah, Science International Applications Corporation.

SM: Okay.

JS: They’re the ones that, SAIC—

SM: Scientific Applications or Scientific International?

JS: Yeah.

SM: SIAC?

JS: SAIC, Science Application International Corporation.

SM: Okay.

JS: They are the contractor that does the bean counting. In other words we go into the Scripps Research Institute at La Jolla. We go through our physical. All of the data is in encorded, put in the computer. SAIC and their group of scientist count up all the beans if you will and they come out with the statement, yes this is significant, statistically significant, difference or it’s not.

SM: Okay.

JS: They publish a report, the report in essence, and at that point the folks from Brooks sit down and they go over it. Then there may be some minor changes in grammatics, might be some minor mechanical changes or verbiage changes and the report is published.

SM: Then IOM reviews it and they make recommendations to the VA?

JS: The Institute of Medicine doesn’t make any recommendations to the study.

SM: No, no. To the VA, to the Veterans Administration.

JS: Yeah. They make recommendations to VA.

SM: Okay. All right.

JS: Based on review of all of the documents that they've been able to find. Their definitions are crazy. Ah—Steve?

SM: Yes sir.

JS: I've got to leave the house in about two minutes.

SM: Okay.

JS: I'd like to—there's a bunch more that I'd like to talk to you about on this subject.

SM: Absolutely. Let me go ahead and stop this officially real quick and then we'll continue talking. This ends the second interview with Mr. Jack Spey.

Interview with John Spey
Session [3] of [3]
Date: November 8, 2000

SM: This is Steve Maxner continuing the interview with Mr. Jack Spey. It is the eighth of November the year 2000 at approximately 9:05 AM Lubbock time. I am in Lubbock, Texas, and Mr. Spey is in Utah, correct?

JS: That's correct. I'm here in Utah. It's about five minutes after eight mountain-standard time. I'm conducting this interview with Steve Maxner of the Vietnam Center at Texas Tech University in Lubbock.

SM: Okay. Sir would you—first question I wanted to ask was about the Ranch Hand study group and whether or not the Air Force maintenance personnel that you mentioned in the previous interview, the men who were changing the nozzles and things like that. Are they part of the study group as well?

JS: Yes, they are.

SM: Okay.

JS: All members that were able to be identified by personnel records, roughly 1,280 individuals that served in the unit in all capacity for the nine-year period that the unit existed, they're all part of the study. Not all of them are participants in the study, but they were identified and had the opportunity to participate in the study.

SM: Now in terms of other scientific work and of the scientists who have been working on the Agent Orange issue, have you heard of or read any of the work by Dr. Arnold Schecter out of Dallas, Texas?

JS: I've met Dr. Schecter.

SM: Yes, sir.

JS: In fact we met at the symposium a couple of years ago there at Texas Tech. I haven't read any of his manuscripts per se. I'm generally familiar with the methodology so to speak that may have resulted in some of his papers.

SM: When you met him here at the symposium were you able to sit in on his presentation? I understand he made a presentation about his research.

JS: Yeah. Well, he was part of Admiral Zumwalt's—wasn't he part of Admiral Zumwalt's presentation following ours?

SM: I'm not positive sir because I wasn't in attendance at that particular symposium.

JS: I've basically listened to that particular presentation. One of the problems that you—there's a lot of talk now about going to Vietnam and doing a study type of thing. That is from a science standpoint, from an epidemiology standpoint, is trying to identify those individuals that may have been exposed versus those who hadn't been exposed. That was one of the key issues in the Air Force health study. Common sense and logic showed or demonstrated that the Ranch Hand cohort had the greatest degree in frequency of contact with the herbicide for the nine-year period. That was born out after the blood serum SA tests came online where you could actually measure the amount of dioxin in a person's blood. In addition you could measure the amount of dioxin in the fat content of an individual. That fact simply reinforced the previous assumption that the Ranch Hand personnel were the highest of all the U.S. military as far as their contact with herbicide. The Center for Disease Control in 1987 attempted to locate and do blood serum SA on Army personnel. They simply came up with the human background level. They weren't able to find anyone that, even though there were individual plane that he was working with it in backpacks or whatever. They weren't able to, the Center for Disease Control, weren't able to locate anyone who had any level other then background level of dioxin in their blood. So their effort was terminated.

SM: This was American veterans that they were focusing on?

JS: Yeah. Right.

SM: So was this a—did they give a blanket—I don't know how detailed the information you have is about that study, but was this a blanket request for anybody who thinks they were exposed to high levels of Agent Orange that they should go to the CDC (Center for Disease Control) and get tested?

JS: Right.

SM: That was a free test?

JS: Yeah.

SM: Wow.

JS: I don't know the numbers involved. I can't remember the numbers involved. I think I've got a copy of the literature that was published.

SM: Okay. Now do you know if the VA is currently conducting those types of test before they do anything in terms of providing benefits?

JS: No. In all likelihood because of the politics of the issue they won't.

SM: Yeah.

JS: That was my contingent we paid before you. I'm not sure what onset diabetes type 2—I'm not sure what level of or how much an individual is going to be paid in compensation because onset diabetes is no big thing from a health standpoint. It's controlled, generally controlled by diet, exercise, good clean living, and that type of thing and occasionally medication. So that whatever compensation level that falls under the VA rules I simply don't know. But given the numbers people have served in Vietnam there's something like—I believe diabetes is ranked as—I can't remember the level that it ranked in terms of cause of death, but that's insulin dependant diabetes.

SM: Yes, sir.

JS: We're not dealing with this.

SM: No. Well, the incident of adult onsite diabetes I think, maybe you can correct me on this, but I thought that was on the rise in the United States generally as well.

JS: Sure it is because our society is becoming much, much over-weight. I think it's pretty obvious when you walk down the street and observe individuals walking down the street with you. We're overweight and diabetes, the frequency of diabetes increases with age as well. It's going to be a question that the VA is going to have to answer as to how they want to deal with it. I'm not sure whether—I'm sure right now they're looking at the cause factor. If they go ahead and accept the recommendation of the Institute of Medicine, which they don't have to accept, but they have in the past. The few diseases that they have put on the list are so rare and so few in numbers that the financial burden to the country is relatively small. The diabetes issue if it should be accepted by the VA is going to be substantially more expensive. But the point wasn't made by the Institute of Medicine when they evaluated the Ranch Hand study the 1997 morbidity report was that the increase is only in those of us who have a dioxin count in excess of approximately thirty parts per trillion. So my argument is that if anyone has a claim I suggest that he go to the CDC and have his blood tested.

SM: Now will they still test for free?

JS: I'm sorry?

SM: Do you know if they still test for free?

JS: No, no. The examination—the laboratory—I think they've—the laboratory work took approximately seven days per sample initially. I think they've been able to reduce that timeframe and as a result the cost, but the cost was originally somewhere in the neighborhood of eleven hundred dollars. I think it's been—they've been able to reduce that cost down to approximately seven hundred dollars.

SM: But that might be cost prohibitive for a lot of veterans I would imagine.

JS: Oh, yeah. Yeah.

SM: Okay. Well, what other issues concerning the Agent Orange controversy and the Agent Orange study group did you want to talk about today?

JS: Well, I think that based on—first of all the Air Force health study is a premiere hallmark study of a human population. There has never been a study conducted, a scientific study conducted on the human population that is as scientifically complete if you will and ever been done before and in all likelihood never be done again. You have to understand that good science takes time. Junk science doesn't take any time at all. A lot of what we've read over this whole controversy starting in 1978 roughly and subsequently that a lot of it has been simply junk science based on self-reporting. Self-reporting data is inherently flawed because the answers that are given are based on an individual's perception and that's been created in the case of the herbicide controversy has been created by all of the press associated with it over the years. The snowball has just continued to get larger and larger and larger based on self-reporting and intentionally junk science. That's the reason that the Air Force health study in all areas possible was done in a matter of physical measurements on both the Ranch Hand cohort and the comparison group cohort. Every attempt was made to reduce the amount of self-reporting. Now in some cases it's impossible. There's no way that you can ask a question—there's no way you can determine scientifically in a laboratory how much beer a person drinks or how much whiskey he drinks. That question is asked and that's self-reported, you know, self-reporting data. It's going to be flawed. It's going to be—the answers given are probably going to be less. "Well, I drink x amount, but I won't tell

them that because that's kind of embarrassing." The point that needs to be made while that answer can be flawed it's going to be flawed in all likelihood to the same degree by the comparison group as well for the same reason, embarrassment, so that that element can be balanced out. Then they do enough liver tests and this type of thing where they're able to measure liver capacity and so forth that will or could correlate with the answer as to how much you drink. Smoking is the same way. They ask us how much we smoke and how long we've been smoking. How many packs a day or how may pipes. I smoke a pipe. That's self-reported data, but when they start examining the lungs they're able to correlate to some degree and verify the answer to that kind of question. Both groups are answering. Both groups undergo precisely the same physical examination and it's a blind examination. The examiners don't know that they're examining the Ranch Hand or a control. That's one of the rules to help eliminate examiner bias.

SM: It's a blind study.

JS: It's a blind study. Now if the examiner when we go to the, what we call the Vampire room that's were they do the big blood draw. There's about eight of us in a great big recliner in there drawing all this blood.

SM: About how much do they take, sir?

JS: Well, it's more then—seemed to me like it's about forty vials. Then when they're doing a dioxin extraction it's a little bit more then a normal blood draw, you know when you're donating blood at the Red Cross. It's a bunch of blood. Anyway, the examiners—you know the chit-chat back and forth between the guys, "Hey, remember when so and so go shot up so bad?" The girls finally will know in some cases that that's a Ranch Hander, but it is a blind study essentially in order to eliminate examiner bias.

SM: That's an interesting point though. It seems that perhaps it would be wiser to keep the participants segregated at all times so that there can't be chit-chat that reveals them to maintain the true essence of being a blind study.

JS: Well, it's not that common of a thing to occur. Most of the guys—where you hear the chit-chat back and forth is when were in off time in day room if you will.

SM: The examiners aren't there with you?

JS: Yeah, and the examiners aren't there.

SM: Okay.

JS: So when you get up and okay—"Okay. Now it's you to go to the electrical business," you're off and running alone in a case like that.

SM: I see. It's only in the blood room—the Vampire room?

JS: In the Vampire room.

SM: That where you've got a group of you that might converse about matters that could reveal your status. Wow. Well um—

JS: One of the other interesting things about Brooks as far as Kelsey Steeple usually conducted the first physical. Since then it's been out at Scripps Research Institute in La Jolla, California. Many of the—about twenty-five percent of the examiners have been in the program since the program started and since La Jolla received the contract. That is good from a science standpoint because you have techniques and the quality control is a large effort on the part of the Air Force to make sure that the quality control is up to speed and good. Because when you're starting to make very careful laboratory analysis and this type of thing, particularly when you're looking for parts per trillion if you will, although Scripps doesn't do that portion of it, that blood is shipped to CDC for a dioxin analysis. But the stability of examiners is helpful to the quality control of the study. One of the epidemiologists, one of the chief epidemiology at La Jolla, he's been with the study ever since the study, every since La Jolla received the contract for the past four cycles. In all likelihood he'll be there in 2002 when we go for the final.

SM: Is there anything else that you want to discuss about the Agent Orange study?

JS: Just to reinforce the fact that this is the premier study and—

SM: Yes, sir.

JS: The results of this study as they slowly become more publicized if you will I think should be reassuring to all veterans of Vietnam. We did a job. We did a good job. We didn't lose the war. That was lost by the politicians here at home. The herbicide missions did kill the hell out of weeds, but it didn't hurt people. It only affected in a very—it's not even—the scientists can't really state with assurance that dioxin is the cause of this diabetes finding. It just happened. It's probably not a statistical fluke, but it's only affecting a very, very small segment of a very, very small number of people compared to the entire 3.6 million or 2.9 million, whatever number you choose to use for

the folks that served over there. The Ranch Hand mission saved lives no question about that. Any Army individual that has worked in areas that have been sprayed, the forward air controllers saw the visibility increase. Photoreconnaissance saw the visibility increase as a result of the mission. It was an effective tool and it didn't harm people.

SM: Just out of curiosity, the group that has the higher incidence of adult onsite diabetes the PTP—

JS: They are the maintenance personnel.

SM: They were the maintenance personnel?

JS: That's right.

SM: Interesting. Okay. So they were the ones with the most physical contact going up, handling like you said the nozzles of the sprayers, changing—

JS: Changing nozzles, changing diaphragms.

SM: Okay.

JS: Every time you returned from a mission you probably had one or two nozzles that were leaking and that required the changing of the diaphragm in that particular nozzle so that when the pressure dropped the diaphragm closed and prevented any leakage. Then you had the pump itself, which was driven by a gasoline motor. When the pump needed to be changed or rehabbed, breaking that pump down, we had fellows that—the dump valve was located in the bottom of the tank obviously with a hole in the bottom of the fuselage. Occasionally that gasket, if a load needed to be jettisoned, of course the valve opened and when it was closed occasionally the gasket would jam or through age, and the individual had to climb into the tank through a manhole, go down inside the tank to replace the gasket. There was always residual between the baffles of the tank. The tank was baffled so the load wouldn't shift back and forth while you were flying. You usually pick the smallest guy because the hole was pretty small. You'd have to go down in there and change and repair the dump valve. He was on his knees and his knees were wet with the herbicide and all this type of thing. The highest dioxin count in our group was with the crew chief and flight engineers, which quite often doubled as in some cases doubled as crew chief.

SM: Okay. In that group in terms of the treatment of the adult onsite diabetes are they handling whether it's through medication or diet and exercise or whatever, are they

able to still make the treatment affective regardless of how the diabetes might have been caused? Do you know?

JS: I don't know.

SM: Okay.

JS: One of the things to keep in mind is that the physical that we undergo, that's undergone is not intended to fix it.

SM: No, sir.

JS: It's simply designed to identify deviation and health outcome. There's a lot of our group whose lives have been saved because of the participation in this study. We've had fellows that had gone out and they discovered that the guy had a bad heart. Those records are given to the individual and he's told, "Hey, when you get back home go see your doctor." Heart bypasses have been preformed and they wouldn't have been identified. A lot of us are bulletproof, particularly the flight crew. I personally would have never gone to get an annual physical probably unless my wife badgered me into it after my last flight physical when I retired in 1976. But when we go to these physicals any significant finding in chemistry or any other element of health we're provided that paper work usually within a couple of weeks and told, "Hey, go see your doctor. This is the problem." A lot of fellows are alive today as result of it, both in the comparison group and the Ranch Hand group. So that's one of the benefits that we as individuals receive in addition to—for most of us this is the second twenty-year tour. Eighty-one percent of the Ranch Hand officers went on to make the military a career. For many of us this twenty-year epidemiology study you might say is second tour. The motivating factors, there's a number of them, but I like to think that we were participating, the participation rate being what it is roughly eighty percent, seventy-nine percent and a fraction, is an indication of the fact that the guys want to participate in good science. This study without question is good science. Not particularly liked by some of the veterans' groups because the findings are so subtle, but it's recognized by the scientific community as the finest epidemiology study ever conducted on the human population. I personally am very proud to be a participant in it for that reason and others.

SM: Yes, sir. A quick question about your career. Do you think your heavy participation in Operation Ranch Hand because you participated in it for a number of

years and you helped to train pilots, then you went back to Laos in more of a special operations capacity with Project 404, your liaison activities or air attaché experiences. Do you think that it adversely affected your career at all, you know not being say part of the mainstream SAC (Strategic Air Command) or even TAC (Tactical Air Command)?

JS: Yes. But I would do it the same way as I did it the first time, I'd do it again.

SM: Yes, sir.

JS: I was an enlisted man. I was a high school graduate. I was enlisted. I already knew how to fly when I joined the Air Force. My dream was to be a mechanic and my dream then was to be able to get to flight school. All of which, by luck, turned out. As the Air Force was evolving through the years through the '60s and '70s it was obvious to me that I—and I didn't go through any of the charm school so to speak. I didn't go to Squadron Officer School. I didn't take it by—you know you can take it by, you send for the books.

SM: Correspondence courses.

JS: Correspondence. I didn't go to command and staff. I didn't punch any of the buttons that needed to be punched for further promotion. I like to say I was too busy having too much fun playing cowboys and Indians if you will.

SM: Yes, sir.

JS: I was realistic enough knowing the way the military was going. In other words they almost required a BS (Bachelor of Science) degree or a BA (Bachelor of Arts). I was five years away from trying to acquire something like that full time. I knew that I wasn't going to get promoted anymore beyond a major because I hadn't out of my own personal choice I was just too busy playing cops and robbers type of thing. Had the war lasted another couple of years and I hadn't burnt myself out I probably would have been promoted to lieutenant colonel, but as soon as the war ended my promotion-ability was at a stand still. My first time eligibility for lieutenant colonel was in 1977. Well, the list came out in 1977 when I was in Japan. 1976 rather when I was working with the Royal Thai Air Force. Again that was a flying job. That wasn't a staff job. I knew that I wasn't going to get promoted to lieutenant colonel. Very, very few people with the Ops operations background were on that list when that list came out because the war as over. You don't need pilots anymore type of thing. I didn't have any of the other prerequisites.

So I'd already made the decision. I talked this over with my wife. I said, "Hey. If I'm passed over we're just going to retire at twenty," which was only eight-ten months away. Yes, it affected my promotion-ability. Had I taken time or whatever to go through squadron officer school, Navy command staff, something like that I would have been more likely to be promoted to a colonel.

SM: Okay.

JS: But I don't have any—like I say I'd do it exactly the same way if I had to do it all over again if the circumstances were the same.

SM: I've got a clarifying question about Project 404 as well. When the missions were set up for the Lao forces to go out and engage PAVN forces, how much intelligence would you have about the disposition of the enemy forces?

JS: Generally pretty good. The Lao and the Thai irregulars were—particularly the Lao irregulars were pretty good at intelligence gathering. The American effort included surveillance of radio transmission by the enemy. For the most part it was pretty good intelligence. As good as you might expect under the circumstances. The forward air controller, the Raven FACs, of course many of their missions were visual reconnaissance missions where they would go out and VR known points of travel if you will. We could request photo recon if the situation warranted. Air America had I believe it was two Volpars, which were, Volpar was a C-45. You know the old tail dragger?

SM: Yes, sir.

JS: The old C-45 with the two—they modified the aircraft and made a tricycle landing gear out of it and hung on to, replaced the recip engines with turbo prop. It was a hell of an airplane. Performance wise it was real good. Anyway, Air America had a couple of them. I believe they had two that were modified with a camera system in them so that they could take essentially the same kind of aerial photography as an F-101. In fact I was told that the camera system that was installed in those airplanes was from an F-101. So we had photo intelligence available. We had interceptive intelligence available and pretty much the same type of information gathering that existed in South Vietnam.

SM: Do you know if they also

JS: The—

SM: I'm sorry.

JS: The recon teams did a good job too.

SM: The guys on the ground?

JS: Yeah.

SM: Would these be the CIA ran teams, the customers for Air America that were running Laotian teams?

JS: Well, they were Laotian and Thai that were inserted for road watch teams. Their job was not to engage the enemy, but just to go in and sort out where the bad guys were. A lot of that is covered quite well in the book *Backfire*. That program was run by the CIA. You have to—the agency—the mission of the agency for the war portion of Laos because you had agency people that were doing the normal intelligence gathering that they would in any other country that they might be assigned to. Then you also had the irregular program, which was you might say the fighting part of that program. That was for the most part conducted and directed by the agency utilizing Air America as the airlift capacity, taking advantage of the attaché program which included, from the Air Force side of the house, which included the Raven FAC portion.

SM: Yes, sir.

JS: The attaché office was responsible for requesting close air support for any particular—well, like when Vang Pao tried to retake the Plain of Jars. It was believed that it was going to require a certain amount of increase in USAF air sorties. So we would write frag request to the 7th Air Force requesting additional fighters. Sometimes we'd get them and sometimes we wouldn't because of the priority. Laos held virtually South Vietnam and North Vietnam. When the cease-fire occurred in South Vietnam we were still fighting in Laos. We had more dog gone air available then you could shake a stick at and more air available then we had targets because we were the only ones—we and Cambodia were the only ones that were still shooting. The interface between the agencies was generally good.

SM: Okay. With regard to the air based intelligence platforms you mentioned photographic reconnaissance. How about signals intelligence, radio birds?

JS: Yeah.

SM: Okay.

JS: Yeah. We had that. That information was being collected and was being utilized by the intelligence, both the agency intelligence as well as the Air Force intelligence. There was a certain amount of—there was quite a bit of sharing because if radio intelligence indicated a grouping of people, a grouping of bad guys if you will. The forward air controllers were fragged to go and take a look at that area and see if they could confirm it, spot the troops, and so forth. Then call in either Lao air or USAF air if we could get it. Laos, we had two airborne command posts over in Vietnam over Indochina all the time. You had one in the north and one in the south. AB-triple-C (Airborne Battlefield Command and Control Centers), the C-130s with a whole flock of guys in a capsule in the back and they had contact with 7th Air Force. They could talk to fighters that were en route. Our forward air controllers could talk with them and if something came up where they could use additional U.S. air they'd make that request with the AV-triple-C, the Moon Beam. I forget the names of all of them. There are four different names depending on the time of day that they were flying. You could request if you had a hot target you could try to get USAF there. Sometimes it was weather diverse out of North Vietnam you know where they got up to North Vietnam and they couldn't strike because the weather was bad. Flying home they'd—USAF airplanes didn't like to land with hot ordinance onboard. So they were anxious if they had enough fuel remaining to provide strike en route back home. If they were out of Udorn or Ubon or Takhli they'd be over flying Laos we could employ them on that basis. A lot of the air that we were able to get was weather reports from North Vietnam.

SM: Okay. Was there an average size of PAVN unit that the Laotian forces would typically engage or did it run the gamut from squad up to regiment?

JS: Yeah, it varied. The Pathet Lao and the North Vietnamese, their units would depending—they would go to, in some cases they would go to battalion and regimental size depending on their objective. PS-22 Vung La Ti out on the Bolaven Plateau in military region four, I forget the regiment number, but I think it was the 9th. But Diem employed a couple of thousand men I guess, something in that neighborhood and finally eventually over ran the camp. The camp finally realized that they couldn't hold off any longer so they just put on their PF flyers as we used to call them and headed east. That was kind of a training, I always considered that a training ground for the North

Vietnamese. If they could function real good in the infantry unit I imagine that some of those units would fight them off and headed down the trail to go into Vietnam. The engagement varied in size. The biggest problem with the North Vietnamese was canon fire. They were outstanding artillery officers, artillerymen both with mortars and a 130 millimeter gun. They were outstanding when it came to deployment of canon. They learned very well at Dien Bien Phu and a lot of that carried over both in Laos and in Vietnam. They were excellent with mortar and canon. They had to be. They didn't have many tanks and they didn't have air. They had to make up for it somehow.

SM: Now did the Royal Lao Air Forces that you worked with, did they suffer many casualties while you were there?

JS: We lost—in Pakse—during the six months I was at Pakse we only lost one.

SM: One airplane?

JS: That didn't have anything to do with the enemy.

SM: Oh.

JS: He was a young pilot. When he was assigned to Pakse after he graduated from Udorn I was asked, the wing commander asked me to take him up and fly transition around the airport, just take offs and landings. He was pretty rough and hadn't learned well and probably shouldn't have graduated. Anyway, I spent I don't know a couple of days and then he was assigned to one of the Lao pilots for his tactical check out. He was told—the T-28 when they reached a hundred hours or a hundred hour inspection the Lao didn't have the capacity at the military region level to perform a hundred hour inspection, which is a fairly significant inspection. The airplanes were flown. We kept schedule of them in the field and also at the ops section at the attaché office, kept timelines on each of the airplanes including the O-1. They were flown to Udorn. The hundred hour inspection was conducted there, both the O-1 and the T-28. This kid was told to fly up to Udorn, input an airplane, pick up another one, and bring it back. En route he buzzed his aunt's house up at Thakhet, which is just a little bit north of Pakse and hit a great big tree, tore the wing off and crashed. There's a saying that if a Lao pilot reached a thousand hours of combat time and that's the only kind of time they flew, he was probably going to survive. He became battle wise if you will. But it was in the early stages when you experience the losses, when they were young. They simply hadn't learned yet and

generally dive a little bit too shallow if they're on a bombing run and release a little bit too low and you get frag damage from your own bombs that way. You can shoot yourself down. These were the things that had to be drilled into them by their own counterpart pilot in watching. Once they started getting more experienced then their survivability increased. Some of the pilots—well, we had a big press one time it was a PS-22 out on the Bolovens Plateau, out at the edge of the plateau. The kids would fly sixty-seventy sorties, strike sorties a day. They'd come in and refuel them real fast, load up the ordinance you know the six bombs, and off they go. Hour after hour, they'd take a break for lunch and back at it again. I heard stories with some of the sorties, some of the pilots that were flying out of Long Tieng MR-2 fly eleven sorties in one day. I found that a little hard to believe, but they were short duration sorties. They were just over the hill over skyline ridge. So they didn't have to fly very far. Turn around, didn't have to refuel, just slap the bombs on—they were only—when we were flying out of Long Tieng we're only able to fly with four bombs because of the length of the runway. So we couldn't go with six. But eleven strike sorties in one day that's unheard of in the U.S. military.

SM: That's quite a bit of wear and tear on an aircraft. How was their maintenance?

JS: The maintenance was actually very, very good. Air America's hundred hour inspection, their maintenance facility was probably the finest in the country, finest in the world. The O-1 aircraft, I used to joke that—we made every effort possible to recover an O-1 that crashed if it was recoverable, even if it was only a wing or a tail section because Air America could rebuild. I used to joke that if you gave Stan Wilson a friction knob, which is a little knob that tightens up your throttle so that the throttle doesn't vibrate and change the RPM (revolutions per minute) on the engine. You turn the friction knob and it just tightens it up, just squeezes it together. If you give him a friction knob from an O-1, he'll build an O-1 around it. They had, Air America had jigs, the actual jig for a fuselage and wing. They could take an airplane that was just all beat up, portions of it, reconstruct the airplane, give it a tail number, may or may not have been the original tail number because the parts may have come from two or three wrecked airplanes. We didn't throw anything like that away because towards the end of the effort 1973 there just

weren't that many O-1s available anywhere in the world that we hadn't already given away to map countries and so forth. So they were in demand in Laos for the Ravens. So we had to make sure that we could scrounge every bent part. Air America would unbend it. Some of the airplanes weren't too true, they kind of try to fly us a little bit sideways. They had the jig and all that perfect, but they were safe. Air America's maintenance was just absolutely phenomenal.

SM: Okay.

JS: Both in the T-28 and the O-1.

SM: Okay. So Air America maintained the Laotian aircraft, the Royal Lao Air Force aircraft?

JS: Yes.

SM: Okay. Wow.

JS: Well, they maintained—they did the hundred-hour inspection or any major damage. If there was any major battle damage to an airplane—

SM: They did it.

JS: The airplane was flown to Udorn and Air America repaired it. The routine maintenance, just changing the radio that quit working or something like changing the cylinder on an engine or sparkplugs or a magneto or something of that sort, the Lao mechanics at the military region knew how to do those. Knew how to do that kind of work and did it well. But it was the major battle damage and the hundred-hour inspection that were performed by Air America at Udorn.

SM: Well, is there anything else that we haven't covered yet that you wanted to discuss today?

JS: No. I don't—unless you have any other questions. I think that wraps it up.

SM: Well, I guess I'd like to end with just one, I guess big issue question if you will. What is the most important thing you think we should as a nation, as a people of the United States should take away from the wars in Southeast Asia? A lesson or principle or something, what's the most important thing you think we should take away?

JS: Steve, run that by me again.

SM: Well, I'm just wondering if there's anything in particular, a major lesson that you think we as a nation should learn from our experiences in Southeast Asia for posterity?

JS: First of all the American effort, the military effort in Southeast Asia was performed well by the military both in Vietnam and Laos under very restricted rules of engagement. Had the military been permitted by Washington, by the politicians, to fight the war the way wars should be fought if they have to be fought and it was important that we did what we did in Southeast Asia in spite of the fact that the politicians lost the war for us. We should have been permitted to get in there and do it quickly and not let it drag on and on and on because the rules of engagement and because of the policies that were being established in Washington. Had that happened the whole shivaree could have been wound up in oh '65-'66 timeframe, which would have included bombing of Hanoi, bombing of the lines of communication leading towards the DMZ, and more affectively cutting the Ho Chi Minh Trail. Had that been done the outcome would have been totally different. The communists understood, communist doctrine and you can go back to the war in Algeria and the Vietminh fighting the French after World War II—the Communists recognized that if they dragged the war out in a protracted conflict type of situation that the American society would call for the effort to end and become disgruntled with the whole element. This was one reason that they—their doctrine was a guerilla type of effort rather then set piece battle, which they knew they would lose because of the airpower and so forth that was available to our side. So they dragged this effort out, their effort, they made some mistakes. They made mistakes like the Tet Offensive and the Easter Offensive and that type of thing. They broke their own discipline. They dragged it out to the point where Johnson and Nixon finally said, "Okay, that's it. We've got to get out of here." From a military standpoint we beat the North Vietnamese in spite of all the restrictions. The war wasn't lost by the U.S. military. It was lost by the politicians who were at home. They just couldn't stomach it anymore. They couldn't take all the anti-war movement that was going on at Kent State and all this crap. They finally—the decision was made, "Okay. That's it." We could see it happening over there. We could see programs that we were required to institute an event that we were working our way out of it. It was really kind of a shame because the

folks did a bang up job, you know, the indigenous people did. Kind of hard to walk away from a personal standpoint, but in the military you do what you're told to do.

SM: Yes, sir. Okay. Well, thank you very much.

JS: Okay, Steve.

SM: I'm going to put us on pause for just a second.

JS: Okay.

SM: This will end the third interview with Mr. Jack Spey.

SM: All right this is Steve Maxner. We're going to continue the interview with Jack Spey for just a moment on the eighth of November at 10:20 in the morning. Okay, sir, go ahead.

JS: One of the things that bothers me the most about the entire Agent Orange controversy is that you now have a large number of people seeking compensation, but more importantly you have a large number of people that believe all of this misinformation. They believe and their dependents believe, their wives, that somehow we harmed ourselves by the conduct of that mission. Even more importantly to me personally is that some of our own people, some of the Ranch Hand people after hearing all of this misinformation through all the years and the press total misinformation that they believe that the mission that we performed or they performed may have affected their health as well. There's absolutely no scientific data to support that. The Air Force health study makes that point very clear. I tell veterans, say, "Hey. Look at the Air Force health study because it's the only piece of science that's been done on this question, the only piece of good science. You have no reason to feel guilty or to feel threatened by the herbicide mission." Essentially that's it. That's all I wanted to throw in.

SM: Okay. Well, thank you sir.

JS: Okay.

SM: This will end the interview with Mr. Jack Spey.