

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

NEW BRUNSWICK

AN INTERVIEW WITH A. DARRYL JAMES

FOR THE

RUTGERS ORAL HISTORY ARCHIVES

INTERVIEW CONDUCTED BY

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and

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NEW BRUNSWICK, NEW JERSEY

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TRANSCRIPT BY

DOMINGO DUARTE

Shaun Illingworth: This begins an interview with A. Darryl James on May 14, 2010, in New Brunswick, New Jersey, with Shaun Illingworth and ...

Patrick Lee: ... Patrick Lee.

SI: Mr. James, thank you very much for sitting down with us this afternoon.

ADJ: Oh, you're welcome.

SI: To begin, could you tell us where and when you were born?

ADJ: I was born in Rahway, New Jersey.

SI: What was the date?

ADJ: August 8, 1943.

SI: Tell us what your parents' names were and a little bit about them.

ADJ: My father's name was Arthur Daniel James and he served in the Navy in World War II. He was originally on the battleship [USS] *Oklahoma* [(BB-37)], and then, ... just prior to Pearl Harbor, he got off that. ... Then, he was drafted back into the Navy and he served on a merchant ship in the Pacific during World War II. ... My mother's name is Anne James and they lived in New Jersey, where my father retired from Chevron, and then, he moved out to Midland, in the town that my wife and I live in, in Texas.

SI: Do you know anything about your father's family's background, such as where the family came from?

ADJ: Yes. My father's father died when he was twelve, I believe, from Plains, Pennsylvania, and I believe he was a coal miner. ... His family came from Wales, in England. ... My mother's family came from Edwardsville, Pennsylvania, which is close to Wilkes-Barre. ... My grandfather, my mother's father, was a coal miner, also, and he came over from what is now [what] would be kind of in a corner where Russia, Poland and Czechoslovakia are, in the Carpathian Mountains, but, at the time, it was Austria, [the Austro-Hungarian Empire]. It was part of Austria, and he came over [when] he was just sixteen, to Pennsylvania. He came over by himself and joined a few members of his family.

SI: Was he still alive when you were young?

ADJ: Yes. I knew, yes, my grandfather and grandmother on my mother's side. His name was Joseph Morenko. Yes, I knew them very well. ... My Grandfather Morenko passed away when I was in high school, here in New Jersey, and I was able to go to his funeral and be a pallbearer. ... His wife, my grandmother, she passed away when I was in flight school in the Army. ... Also, my grandmother from my father's side, she passed away when I was in the Army, also.

SI: Did they ever share any stories with you about the family history, their immigration or what it was like to grow up in Pennsylvania in their day?

ADJ: Not too much. I wish I knew more about it. It was pretty remarkable to come over when you're sixteen years old by yourself on a ship. That was kind of a family story, in coming over. That had to be very frightening, you know, to come over to a new country by yourself. ... They were nice, hardworking people and they were part of my growing up. I wish I had asked more questions.

SI: Let me ask how your parents met, if you know that.

ADJ: My father was in the Navy and he was in his Navy uniform and my mother was a waitress in Wilkes-Barre, at some café and that's how they met. Let's see, ... I was born. My father was present when I was born, but, then, he went back into the Navy, and then, he didn't see me again for three or four years. ... At that time, I was living in Pennsylvania, and then, my mother moved to live with her sister in Elizabeth, New Jersey. ... So, my earliest memories, my father was back with us and were [of] growing up there in Elizabeth, and then, after attending kindergarten, I think that's about ... the time we moved to Morgan, New Jersey. It was one of those small houses that were built after World War II [that] a lot of veterans bought, and I grew up in that small house. Then, gradually, the house got a little larger as our family grew. I have four brothers and a sister, and grew up in Morgan, which is part of Sayreville, New Jersey. So, I went to Sayreville High School and played football and baseball in Sayreville High School. I was also a musician. I joined a rock and roll band and my first memories of Rutgers is that we played at Chi Phi Fraternity, when I was a junior in high school, our band did, and I thought that was pretty cool. [laughter] That's my first contact with Rutgers. ... I was the first member of a large, extended family, because my mother had several brothers and sisters, so, I had a lot of cousins, but I was the first--wasn't the oldest, but I was the first--member ... of our extended family to go to college. ... I know that made my grandmother, both my grandmothers, very proud.

SH: What did your father do for Chevron?

ADJ: He was a chemical operator. He didn't go to college. I don't know exactly what he did. ... It was an oil refinery in Perth Amboy, New Jersey, and he worked in the "cat cracker" [fractionating tower], which is the place where they break up the crude oil into various products that are used in the oil industry. I really don't know much more about it than that.

SI: Did your mother ever work outside of the home after they started the family?

ADJ: She was a waitress and made very good money. So, even though we had a large family, ... we never lacked for anything. I had a good upbringing. We had good food and always had a good place to live and nice clothes, but it was a large, working-class family, ... but, joining in this rock and roll band, and, later, in other bands, I was accomplished enough as a musician to make a pretty good living. So, I pretty much bought all my clothes and put myself through six years of college. I had a small State Scholarship. Later, in graduate school, I had a research assistantship here at Rutgers. I paid for about ninety-five percent of my college expenses.

SI: Wow, just from the band.

ADJ: All six years, graduating with no debt, from [playing in] the band, yes.

SI: When did your interest in music start? Was it very early on?

ADJ: Yes, when I was maybe eleven or twelve.

SI: What instrument did you start on?

ADJ: I played guitar and played bass, but primarily guitar. ... Really, that ... and sports were very [much a] part of my early childhood, but playing in these bands, was good and bad. It was good in that it allowed me to go to college by paying for it myself. It was bad that, when I started at Rutgers, back then, I don't know how it is now, but everyone majoring in a math or science had to take twenty-and-a-half credit hours your first semester. ... I took twenty-and-a-half credit hours and worked four nights a week in a band. We were playing at a bar in Newark, New Jersey, and that was very tough. ... It was very tough on my academics and I was put on academic probation my first semester. ... I had always been a very good student in high school. Freshman year was challenging to me. I lost a lot of weight. I lost about ten pounds my [first semester] and I was commuting back and forth to school, too, from [home], which is about twenty minutes from campus. So, it was worrying my father, because I'd lost weight and I was staying up late, studying, awhile I was playing with the band, on breaks, taking books with me, and so forth. It was pretty difficult, but, the next semester, [I] played less hours, just worked on weekends, and it wasn't that I [did poorly] from lack of studying or trying or anything like that. ... My grades went up to all "As" and "Bs" and they stayed all "As" and "Bs" throughout all my career at Rutgers, but that was tough, first semester.

SI: What kind of jobs would you get with the band in high school? Where would you play?

ADJ: In high school, we played mostly at high school dances and that sort of thing, on weekends, and, as we got older, we played more in bars and clubs and down the Jersey Shore and that sort of thing. I stayed with that band until my junior year in college, because I was in ROTC and we had to go to summer camp--it was required--at Fort Devens, Massachusetts. So, I had to, then, ... leave the band. ... When I left the band, then, I got a job as a lifeguard during the summers and formed another band that just played on weekends. ... We played lots of different venues--played jazz, played dinner music, played rock and roll. Whatever was needed, we played. ... I played in that band while I was in graduate school, and worked, like I said, two summers as a lifeguard.

SI: I want to go back to earlier in your life. Part of your family emigrated from Europe. Were there any "Old World" traditions kept up in any way in your family, through food or holidays, perhaps?

ADJ: Primarily in food. We had a lot of interesting food that I fondly remember. My mother was a good cook, but my grandmother was an outstanding cook, and she never seemed to us a

recipe. She was always just throwing things [in], and so forth. I used to watch her when I was a boy, and, when I was a young boy, I occasionally spent, a couple of weeks [with her] during the summer and, one year, I spent the entire summer with her. That was in Edwardsville, Pennsylvania, close to Wilkes-Barre. ... Her cooking was always very [good; I] just loved it. My grandfather had a little grape arbor in the back. I remember that. ... I remember, he had a smokehouse in the back, where he smoked meats, and one of the things that was very vivid in my childhood is, I saw my grandmother kill a chicken. ... I must have been, like, seven, probably about seven, and she hung the thing. Well, when she chopped the head off, ... the legs were still moving. It was trying to run. I remember that, ... because [it was] a very vivid memory, I have lots of nice memories about the house ... in Edwardsville, Pennsylvania. Now, my other grandmother, who ... I loved just as much, ... she had no house. So, she would circulate between the four members of the family. My father had a brother, an older brother, who was a coal miner and he had a twin sister and an older sister. So, my grandmother would circulate between all the members of the family and she would stay with us some, too, but, because we had a large--[the] largest--family, with four brothers and a sister, she didn't spend as much time with us as with the other members of her family, because of the size of our house and the number of children that we had. My father's brother was a coal miner, an older brother, and I have a vivid memory, when I was about fourteen. The only son that my father's brother had was killed in an automobile accident when he was five, by running out in the street. ... That was a very vivid and a very traumatic memory. I had lots of cousins and have kept up with a few of them. I had a very good childhood and very, very fond memories.

SI: You described the neighborhood in Morgan as one of these veteran-influenced communities that sprung up after World War II. Can you tell us a little bit more about the neighborhood, such as who your neighbors were, typically, and if it was a closely-knit neighborhood?

ADJ: It was a very close-knit neighborhood. ... Back at that time, all the houses looked pretty much alike. The builder made very slight variations between them. I had lots of friends about my age growing up. So, it was a neighborhood that was about the same demographic as our family, lots of World War II veterans, that sort of thing. Now, the houses are very much different, because one of my brothers, Dennis, bought the house from my parents and remained there and has remodeled it. Virtually all the other houses have been remodeled. So, if you go into that neighborhood now, the houses look much more affluent and way bigger than when I grew up.

SI: Were your parents, or your siblings and yourself, involved in the community, in civic activities?

ADJ: My mother was. My father, pretty much, he just ... worked. I remember that, but my mother was involved in lots of activities. She was a Cub Scout den mother when I was in the Cub Scouts and she was involved in all the activities that I was involved with growing up, ... even played Santa Claus in the local neighborhood. I remember that, as a boy, going to some of the [meetings], through the Lions Club and other things, ... somehow, she became a Santa Claus. She did that for a few years. My father was a quiet, reserved person and my mother was very just the opposite. ... She was loud, talkative, very social and liked to network with [people]. She had lots of friends, and so forth, while my father was kind of reserved. Now, my father,

although he was reserved and did shift work, he was present in many, many of my activities, like at Little League and in high school baseball, and especially high school football. He just loved the fact that I was on the high school football team. ... He was there when he wasn't working, or for practice, and every game, but working shift work, he couldn't be there ... many times, but my mother was always there, or seemed to be always there, [laughter] yelling at the sidelines and embarrassing me, telling the coach to put me in when I was on the JV team and that sort of thing. [laughter] ... They were very much involved in my life, in all ways.

SI: Did your father ever talk about his time in the service?

ADJ: Not very much. He did talk about one time where he got scared because there was a kamikaze airplane and he was on a merchant ship, an oiler. ... He was getting ready to go off the other side of the ship, because he saw it coming from one direction, but, other than that, he never said very much. On the *Oklahoma*, he was--I've forgotten the terms; I'm an Army guy, not a Navy guy--but he was a quartermaster type of petty officer. ... He showed me things like [what] he did with navigation and navigating from the stars and that sort of thing, with a sextant and that sort of thing. So, he was involved in navigating and he probably was doing the same thing in the merchant ship during World War II, too, but he never talked very much about his experiences. ... I do remember one thing. After my mother passed away and my father was still doing okay, but ... getting slower, my wife and I took him, and our two kids, ... on a vacation to go fishing, because he loved boats and fishing and he never really got [to go fishing] much. He loved the water and my mother was always afraid of the water. They never went on cruises or anything like that. We took him down to South Texas and we went into Corpus Christi. We couldn't go fishing because the weather was terrible. ... I had chartered a boat, but it rained, a terrible storm. So, we ended up, ... a friend loaned us his cabin, out on a river feeding into the Gulf of Mexico, and so my young son was fishing off the deck in the rain, and my dad was out there beside him. On that trip, ... in Corpus Christi, ... there was an aircraft carrier, and I can't quite remember the name. ... It was a museum. I think it was the *Lexington*. We went out on the ship and he loved it. ... He got to look, walk all around. [Editor's Note: The aircraft carrier is the USS *Lexington* (CV-16), now the USS *Lexington* Museum on the Bay in Corpus Christi.] ... As we're going up these steep ladders, he was going up pretty well, ... but I was a little worried. I would go up behind him, these steep ladders and passageways. He said, "I've been on this ship," and I said, "Oh, really? How could you be on this ship?" He said, "In the Philippines, I was on it three times to go to church." His ship was anchored in the Philippines with this ship. So, I thought that was pretty amazing, because it wasn't long after that my father developed Alzheimer's. ... He just wasn't the same after that trip, but we got to take that one last trip with him, during the summer. ... Unless you can spark some memory with me by asking me the right question, I can't remember much more about his military experiences in the Navy. I have a lot of his pictures and I know he grew a beard and smoked a pipe and he was very slender back in those days. ... They had a dog on the ship, which I thought was pretty unusual, to have a dog on your ship.

SI: Was he active in veterans' affairs, like the local American Legion?

ADJ: Yes. ... I do remember that, as a boy, that he belonged to one of those, like the VFW [Veterans of Foreign Wars], perhaps. ... I don't think he was a lifelong member, but after he retired and came to our town, Midland, Texas, he joined the VFW in Midland.

[TAPE PAUSED]

SI: What was your parents' attitude towards education? Did they encourage you to think about college and study hard or did they have other ideas for you?

ADJ: Well, they were always very supportive, but I think there was something inside me that always wanted to go on to college, and so forth. They didn't push that on me. ... With my other brothers, I had one other brother who went to Monmouth College and finished at Rutgers at night, over a long period of time, studied business, but my other two brothers never went to college and it never really was pushed on them. ... I think I always wanted to go. They encouraged me in all my schoolwork, and so forth, but I think I did it on my own. I just always felt this was something I wanted. I was encouraged a lot at school by teachers. I can remember two or three teachers that really wanted me to go to college. I know I wanted to be a baseball player back then. At that time, I thought I was a good baseball player and I thought that would be a great life. ... I remember one of my teachers, who later became the superintendent of the Sayreville schools, Vincent Abetello, in Sayreville, he said, "No, you're not going to [play ball]." He says, "I can tell you're not. There's much more for you than being a baseball player." He said, "You need to go to college," and he wanted me to study engineering. He was very supportive and encouraging for me. ... I remember other teachers, too especially my high school teachers that were really very supportive and encouraged me.

SI: What were your favorite subjects?

ADJ: Science was my favorite subject, although I had a high school history teacher that I just loved. ... I think science and history, but it's funny, here, at Rutgers, ... majoring in geology, at that time, was almost like being a priest, I guess. We had small classes, ... only one section was available every semester. So, you had to fit everything else in around it. I got so sick of taking science classes and math classes that anything else I took at Rutgers, I absolutely just loved, like philosophy and art, ... military history and history, I mean, I just [loved them], psychology. I'm trying to think what else I had, because I couldn't take many other courses and, when I took something, ... it was like something fresh when I started studying, when my study time got into something else besides science, just because I had such a heavy dose of it, I think. I wasn't one of those students where the grades were good in your major and sort of lackadaisical [about the rest]. My grades were good in everything. ... My grades were always good in everything that was outside of science. [laughter] I had trouble with math and physics and calculus, because it was very demanding here at Rutgers, and, because I commuted, I had to work alone. I had no study groups. Those classes were very difficult for me and [I] had to work really hard to get through them and do okay in them. ... I was always very good at those subjects in high school, but they were quite demanding here at Rutgers. I think I could have taken any class here at Rutgers and loved it. The only class I did not like at Rutgers, just getting aside a little bit, was, I took a class in [education], because I thought I wanted to be a teacher, and so, I never could manage to fit an extra elective in. So, I tried education psychology, and not trying to knock the Education Department at Rutgers or anything, but I thought that was very easy. It was the only class I took that did not have a lot of traditional students in it. It had a lot of people who were teachers or, I remember, we had one retired military person who was in [it]. ... At the time, they

all seemed old to me. They were probably forty. I was a little embarrassed, to be frank, that Rutgers had a class that easy, and it was the only class that I skipped class on. I went six years through Rutgers, with even coming to class sick. ... The only days in classes that I missed at Rutgers in the six years was when President Kennedy was shot and the school shut down. That education psychology class was on Saturday. ... The teacher didn't mind if you skipped, and so, I think I skipped four times and still found it so [easy], just all I had to do was read the book and got an "A." Everything else was demanding and I had to work hard. I loved my six years here at Rutgers.

SI: Given what you did at Rutgers, how well do you think your education in Sayreville prepared you for it? Was it a difficult transition or did they have good science programs at Sayreville?

ADJ: Well, I think everything was a pretty good transition, except for maybe the mathematics that we had. It was much more demanding here at Rutgers and that was a difficult transition, and the other thing that was difficult was English. I always got "As" all through high school in English, and I thought English was going to be a whiz. English was anything but a whiz at Rutgers. It was called "the weed out class" back then, because, ... at that time, it was relatively--I think I'm being accurate--but it was seemingly easy to get into Rutgers, but it was very difficult to stay. I remember, as a freshman, coming in. They were saying, "Well, look around you. ... Only one out of four of you will graduate with your class in four years," and that was probably right, and I think English was one of those "weed out" classes, I think, because it is the only thing I ever took in my life that I flunked. I flunked freshman English at Rutgers. ... I think it was because I just wasn't [ready]. It was writing and I just wasn't prepared for that in high school, and I didn't have enough help. I'd had no help at home. My parents weren't good writers, so-to-speak, and I had no other students to help me, because I came home every night. So, I think--I'm not trying to make excuses--but, later in life, writing became one of my strengths. I now consider myself an excellent writer and I've written three full-length novels, that haven't been published yet, but they're manuscripts. One ... dealt with my experiences in Vietnam and the other two are historical fiction. ... I've had articles published in various military-related magazines about my experiences. I've had two of those published and I've had three articles published, including one in the AAPG that has been widely quoted, the *American Association of Petroleum Geologists*. The AAPG is world-renowned, in geology. ... Later on in life, as a manager, writing was one of the things you had to be able to do to be successful. So, I became a very good writer, but my first semester, ... I just didn't know what to do or how to do it, ... but, in my second semester, I was able to pass it. ... Then, I came in the summer and I was able to get a "B" in it and I felt that was a significant accomplishment. Later on, ... no one taught writing *per se* at Rutgers, but, later on, all my classes involved writing. So, I just became better at it. I had to write a full-blown thesis in grad school. In the Army, for example, when I came back from Vietnam, one of the things they had me do is go to a two-week class on--back then, it was called education TV or advanced education. It taught writing and using at the time what was state-of-the-art learning vehicles such as TV and program text booklets, etc. I was assigned a job on the Colonel's staff. Here, I was writing staff studies virtually every day for the Colonel or for the aviation school. Writing, although I was very weak starting at Rutgers, became something that was my strength later on in life.



SI: Did you ever consider any other colleges or did the economics and the distance always influence your decision?

ADJ: Well, yes, economics and distance were a big factor, but I applied to Monmouth College, Wagner College, and Lafayette College. I was accepted at Monmouth and Wagner, but I wasn't accepted at Rutgers immediately. ... It was because, when I took my SAT test I had selected Rutgers at Camden to have my test results sent. Finally, it took Rutgers to figure out my mistake of putting in the wrong place. ... I was accepted, but I was accepted about two months later. [laughter] ... I was really very nervous about it.

SI: Your generation grew up under the threat of the Cold War, the threat of nuclear war with the Russians. Going back to when you were in elementary school, do you remember that permeating your life at all? Do you remember drills or any sense of fear, fear of the Russians or fear of a nuclear attack?

ADJ: Yes, I do remember drills where we would go under our desk. I remember that--like that would save us from a nuclear attack, [laughter] but we did have those drills. Yes, I remember the Russians being our enemy and I grew up in a family that was conservative. Even though it was a working-class family, they were conservative ... from their views on things like permissiveness and those types of things. ... They were pretty straight-and-narrow--like, for example, going to church. My mother was a Catholic and my father was a Protestant. Nevertheless, I grew up in a Baptist church, although my father rarely went. My mother wouldn't go unless my father went, but she took us to church every Sunday. It was a small, little Baptist church in South Amboy, New Jersey. Growing up in Sayreville or Morgan, New Jersey as a Baptist was a minority, a very small minority. I didn't know another person who was Baptist going through high school. All my friends were Catholics or Jewish. ... Ironic, because when I ended up living in the South, where the major religion is Protestant, and largely Baptist. My parents were conservative people that brought me up with a sense of a right and wrong. I felt that was a good benefit to me and a good basis to start out in life.

SI: Did the groups get along, Catholics and Protestants?

ADJ: Sure, yes. There was never an issue. My friends were from everywhere. The one thing that was different, with my early background, is that I didn't know anyone growing up who was black. ... There were no blacks in our town at that time. I played other teams that had blacks on them in high school. It was at Rutgers where I first got to meet and really got to know people who were black.

SI: You were a commuter student, but what were your first few days and weeks at Rutgers like? Did they have any kind of initiation for freshmen? Were you involved in that at all?

ADJ: A little bit. There was not that much of it, just the first couple of orientation meetings. ... We were chased around by other students and that sort of thing, but one of the things I remember about Rutgers--I don't know if it still is like that. ... You have to remember, back when I was at Rutgers, it was men only, at least [undergraduate]. I think when I was in grad school, that tradition changed, or soon after.

SI: In 1972.

ADJ: We had Douglass, and occasionally, there would be a girl or two in a class, which was always pretty exciting to me. I always wanted to take a class at Douglass. When I was a junior or senior, I was able to take a class in climatology over at the Douglass Campus. [laughter] That was pretty [nice], and I was over at the Douglass Campus this morning, so, that ... brought back some of those memories. I was trying to remember where the building was, but the thing I remembered about Rutgers back then is that, on the first day of snowfall, we had a tradition, tension would build on the campus. No one said anything, but that meant that there was the traditional panty raid over at Douglass. So, everyone would go over to Douglass and the girls were throwing their panties and bras out the windows, and so forth. I mean, that sounds silly now, but that was a big deal then, [laughter] and very much fun. A lot of my friends were in fraternities. I never was involved in them, although that was the thing that got me the most interested in Rutgers, back in high school, because as I mentioned we played at a couple of Chi Phi Fraternity [parties]. I got invited to lots of those kind of things, but my social life was not real strong at Rutgers, because I was always busy with this band thing that kept me away on weekends.

SI: It was always the same band.

ADJ: It was a band called the Hub Caps, that became locally famous. I've been to reunions with them. ... Some of them still get together and play. I played with them until I was junior. In my senior year, I formed another band with a drummer and we would hire side musicians to play with us forming a five-piece group or a three-piece group, whatever the venue needed. ... We were called the Misfits. Some of my Rutgers buddies from grad school, would come out to hear us play, occasionally. ...

SI: Did you play original music or covers?

ADJ: Both, but we were what we called commercial back then. We played what the people wanted to hear, because we were interested in making money. We did come up with some original music. We played in New York and [the] Jersey Shore and Pennsylvania. We never could do any tours because I was a full-time student.

SI: Do you have any stories about playing in these bars?

ADJ: Oh, lots of stories about playing in bars. [laughter] For one thing, I'll just tell you, as a very naïve freshman, conservative young guy from Sayreville, never saw much of anything, never been around, as an example, black people, ... what I'm trying to say is, you know, I just wasn't very worldly. I was just a "small town guy," and then, when I was a freshman, the year I was having such a [problem], the first semester [I] was a freshman, we played at this bar in Newark, New Jersey, that I didn't know, for weeks, that it was a gay bar. I didn't even know that, and then, so, that was an education for me, because gayness wasn't very open back in those days. My parents never knew. ... They wouldn't have ... liked that story, [laughter] but, you know, I

just [recall] the fact that I was [surprised], all of a sudden, to realize where I was. We all did, ... but there was nothing bad ever happened. Looking back, it was just an enriching experience.

SI: Did you continue to play at fraternity parties?

ADJ: No, at that point, we were kind of beyond that. So, we were playing at venues that paid us more money. So, it was mostly clubs and bars sometimes with a four-piece group, sometimes five-piece group, and then, later on, with my own group, was very often a three-piece group, because the three-piece group often made you more money. Oh, I have to tell you one story about playing that was really interesting. The most money; ... you have to go back to when seventy-five dollars or a hundred dollars was serious money. We were typically paid about twenty-five dollars a night, which to us was a lot of money. I mean, I had ... my own car, paid for my own insurance and paid for my own college. I was in grad school and we were playing in a club in Perth Amboy, New Jersey called the Pink Elephant. The drummer and I, like I said, would hire side musicians to play with us. I was teaching guitar to make money. ... While teaching guitar, I met a student, a young guy who was in a garage band. My drummer and got this idea. "Why don't we promote a big gig at a local high school in South Amboy and call it the Battle of the Bands?" We found out who was the most popular band playing in the local high schools at that time and who was their principal rival. Getting the two most popular bands to play one set and bring their equipment. The idea [was] that you were going to play against your rival. ... We sold it by saying, "Okay, now, you've got a chance to really showcase your [talents]." So, we had two sets, two sets of equipment with the two top bands. We then found a bank just getting started, and the garage band that I mentioned--four bands. I stayed playing at our normal gig at the Pink Elephant in Perth Amboy and the drummer left to run things at Sacred Heart High School in South Amboy. I hired a drummer to replace him and he left with a couple of my friends, one, I think, a friend from high school and a friend from Rutgers. They went down there and they helped manage the event. We got high school student council member to help them run and organize the dance. It was the most popular dance that they ever had. ... They charged, I think it was a dollar a head to get in, and we split the gate with the school. They had a concession and we jointly paid the expenses of the policemen, etc. We made a lot of money. ... I made, the drummer and I, several hundred dollars. It was the most money I ever made as a musician. We were too successful because the school wouldn't let us do it again. [laughter] Now, of course, they made as much as we did. They did it later themselves later themselves and hopefully did as well. That was just that one little aside, but I guess that was my business instinct coming out. [laughter] ...

SI: When you started at Rutgers, how quickly did you decide you wanted to get into geology?

ADJ: When you majored in a math or science, everyone took, the same courses the first year. You had to decide during your second semester, what it is you want to major in. I thought I wanted to major in chemistry and become a teacher. One of my friends took a geology course for science requirement that first semester. He was majoring in accounting and somebody said, "Take geology." He suggested it to me. I liked earth science in high school. Geology was one of those sciences that brought in everything, chemistry, astronomy, physics, biology, etc. It kind of brought everything into it, math. So, I thought, "Well, I'll try it." I took geology as an elective. I selected geology as my major in my sophomore year. At first, the classes were

twenty or thirty, but, the more advanced classes were small, like five or six or eight. I've learned only three people in my class ... that were majoring in geology graduated that same year. Our class was larger, I understand others graduated later. ... I remember those three students and some others, too. Two of us went on to work for Exxon.

SI: Tell us about the professors that stand out in your memory and about some of the other classes within your major.

ADJ: Oh, yes. Well, Steve Fox, he's passed away now and they still have a fund for him to help students with their expenses to go to summer camp. They have to go to summer camp now and I like to contribute to that Fund. He was one I just loved, and Professor [J. H. C.] Martens was another one. Steve Fox was a paleontologist, but he just made students feel [like] part of his own family. I remember going to his house and going on field trips, and I shouldn't say this, but he would sneak us a beer on the way back. He just brought himself down to the level of a student, where many professors are a bit condescending. Steve Fox took an interest in every one of his students, that I remember. ... [I] didn't study paleontology as a specialty, but I always loved him and he was very important to me. Professor Martens was one of my advisors in grad school. He was the one who got me interested in going to grad school. The concept of grad school was foreign to me. Growing up, I would have said, "What is graduate school?" Professor Martens was the one who took an interest in me and encouraged me to seriously think about it. There was a younger professor, Dr. Vogel, who was teaching hard rock mineralogy. He was another one who served on my thesis committee and I liked him a lot, and then, there was Dick Olsson, who recently [retired]. He later became chairman of the Geology Department. He's now professor *emeritus*. His wife has recently passed away. He and I have kept in touch over the years. He's a Princeton graduate and my son was interested in going to Princeton. Actually, I was interested in my son going to Princeton. My son decided to go to Rensselaer Polytechnic and later University of Texas. They were very important to me. These people led me on to graduate school and, if I didn't go to graduate school, I wouldn't have gotten the great job with Exxon. I mean, they're part of my life.

SI: Looking back, having spent your career in this field, are there things that you see in the curriculum at Rutgers that were particularly innovative or ahead of their time, or, on the other side, maybe things that they spent a lot of time on that were unnecessary or turned out to not be as important?

ADJ: Well, to answer that question is kind of complex. First of all, geology has changed so much from when I went to school. The things I was taught in school were concepts, now, that are not correct. Geology has advanced so much. There was no such thing as plate tectonics when I was at Rutgers. The science of geology was just getting into the theories of continental drift, which later became plate tectonics. Our professors took us to the Geologic Society of America (GSA) meetings in New York. I remember the GSA was presenting papers on continental drift. Well, continental drift was later found to be not correct but it led to the concept of plate tectonics. The geology I learned at Rutgers was classical and a good basis for my careers. In geology, it was not the stuff that later became useful or critical, I learned those things in Exxon schools and continuing education classes with AAPG and other scientific organizations. Rutgers taught me how to think and solve problems, how to put things together,

and so forth. That's the important thing, not the fact that they were teaching me how to find oil and gas, because they did not teach me how to do that. They taught me to love nature, and how geology works and evolves, how things change, and they taught me to think and solve problems. You had to continue with your education to be successful in a very fluid, advancing field like geology. There's just no way they could have taught me the things I needed to know--the things weren't invented yet. The instruments that we used were not even [around]--I mean, they weren't even close to being invented--and the tools, the various logging devices, the various petrophysical devices that we use on an everyday basis, yes, they just weren't around. ... So, no, they didn't teach me how to be a petroleum geologist, but they sure gave me a foundation to become one.

SI: What kind of tools did they have available at Rutgers for you to train on? Were they--and the classrooms and the labs--up to whatever the latest state of the art was?

ADJ: Yes, they did. Geology, back then, was more field mapping and there was not a lot of subsurface geology. The logging tools and devices we use to study the subsurface were new and crude. There weren't very many of them, and so, I did not see very many examples of what I was to use later on. Some early, primitive type examples of electric logging, a handheld geophysical (seismic) device x-ray defraction instrument. Now, I'm sure, they're teaching and introducing many of the advanced instruments and technology being used today. Science doesn't sit still and new things are going on all the time. ... Exxon recruited heavily at Rutgers when I was in grad school, and then, they stopped. I think I was ... one of the last geologists they hired for a long time, but Exxon was Humble then, came out when I was an undergraduate and I was a graduate student and interviewed. ... Then, I was gone for ... three-and-a-half years in the Army. Exxon kept track of me, and then, when I applied for a job, they remained interested in me. It was a depressed economic time in the oil industry and they still wanted me.

SI: What about fieldwork? Did they ever take you out for any kind of work in the field?

ADJ: Oh, yes. ... Fieldwork, was and is important in studying geology. Back then, that's pretty much what they taught, field geology, fieldwork. ... That's what we did and that's what I did in grad school, too, and my thesis in hydrology involved a lot of field mapping.

SI: You mentioned going to a professional conference. Was that something they also did with undergraduates?

ADJ: Yes, they encouraged us, and some of my professors, like, Steve Fox is one I remember and Dr. Vogel, I've forgotten his first name, they took us. They would take us undergraduates to meetings held in New York, Philadelphia, and neighboring universities. We had this one course that was very neat. It was a course on oceanography that Rutgers, Princeton and Columbia together taught. It rotated from Rutgers to Princeton, and then, to New York, in Columbia, and I remember going to classes in [New York]. It was in Princeton the year that I took my classes there, but we would go to Columbia for talks. ... I remember going to Columbia quite a bit, in New York City, Princeton quite a bit, for professional papers or talks that were given by, primarily, grad students or professors, and got to go to every one that was available, they would use Rutgers station wagons or we'd go with our professor in their cars. It was great.

SI: Does anything else stand out about your studies in geology at Rutgers in the undergraduate period?

ADJ: ... The thing I remember, it was small enough [that] it was like a family, especially with ... five or six of the professors. If it was a larger kind of a department, maybe it wouldn't have been that way.

SI: In general, I know the 1960s were a time of great growth for the University. What do you remember about that?

ADJ: ... Before I try to answer that, let me [add], there's one other thing, too, that I have a nice memory of. Dr. Martens was a consultant for a power company that was building a reservoir on top of Kitintinny Mountain near the Delaware Water Gap. They had a second reservoir in a valley below. ... They filled up the reservoir below slowly, with water from a creek feeding into the Delaware River. When filled, they would pump the water up through a turbine to the top of the mountain and keep it up there, like a battery, for whenever they needed additional electricity. They would open it up and flow down, turning a turbine, and pumping it up at night when electricity was plentiful and cheap. During the day, electricity was in demand and expensive. You can make a small profit doing it that way, but the main use was as a battery. When you needed a bunch more electrical power, you can just turn it on. We would go up with him and help and learned a lot. The first time I got paid as a geologist was when Steve Fox [who] was asked if he had some graduate students ... who could make a topographic map of several acres of a swampy area in South Jersey where a shopping mall was planned. ... Bill Sparks went to grad school with me at Rutgers, and who went to work for Exxon a couple of years before me, joined me to map this swamp. We used field mapping equipment and made a topographic map. It took us several weekends. Probably about five or six half-days to do and were paid a few hundred dollars. So, that was a pretty neat deal, ... was my first paying [job], getting paid as a geologist, but you're asking about the '60s, what I remember about the '60s. Well, they were kind of a time of music changing, you know, the Beatles, and so forth, and I was in music. So, music was changing. I never had long hair, though. I remained conservative, short hair. ... Our bands never got into drugs or anything like that. [As a] matter-of-fact, I never saw drugs the whole time I was at Rutgers. Now, I did see it in the Army in Vietnam, but it wasn't something I was ever interested in, but I never saw it playing in bands back in those days, too. ... I think my peak time in music expression was just before that was all developing, the long hair, etc. That developed as I got into the Army, but I remember that times were changing.

SI: What were your favorite bands at that time, music that really influenced you?

ADJ: Well, the Beatles were a big influence. All those bands from England, they changed music. Elvis Presley, you know, his type of music was big. We were playing, like I said, in commercial bands. We needed to play what the people who hired us wanted to hear. Music, the war, segregation, times were changing, but Rutgers, back then, was a pretty [conservative school]. We tended to wear ties at football games. We didn't wear jeans to go to class, we dressed preppy. Any time there was anything special, like a club meeting or something, ... if it was kind of special, you tended to wear a coat and tie. Dress started changing. Everything was

becoming more informal. Then, Kennedy was shot while I was a junior and, of course, [like] everybody, I remember exactly where I was--I was in paleontology class, paleontology lab, Steve Fox's lab, when he came in and told us that Kennedy had been shot. I vividly remember that. That was very traumatic. ... I was in ROTC and I thought seriously about putting my uniform on and going to Washington to pay my respects to the Commander in Chief. I didn't do that, but I remember thinking about that. It was a very moving time, and that happened. ... Oh, I remember another thing that was happening, too. Rutgers had a very small black population. I'm guessing, but I bet I'm not off by much--three or four percent black students, but, as I mentioned, it was the first time I got to know someone black and get invited to their parents' houses. There were things like freedom trips to the South, and so forth, and there were teach-ins going on at Rutgers. [Editor's Note: Beginning in May 1961, African-American and white "freedom riders" began testing the desegregation of interstate bus travel made legal in the 1960 Supreme Court decisions *Boynton v. Virginia* and *Morgan v. Virginia*.] I was really never heavily involved in any of those things, supported them, but because it was pretty demanding on me to be a student, to be a geology student and to work on weekends and things. So, I didn't get involved in those kinds of things, but they were starting to go on as I was in my junior and senior year and graduate school.

SI: Did you ever attend any teach-ins?

ADJ: Yes, a little bit, yes. Some of them went on, like, ... one went twenty-four hours, and I've forgotten which building it was. It was one of those buildings that was near the geology building.

SI: Scott Hall?

ADJ: Probably that, yes. It was one of the newer buildings--one of the real large halls.

SI: Were they related to Civil Rights or ...

ADJ: Yes. Civil Rights was the main theme of the teaching.

SH: Was this the early anti-Vietnam War movement?

ADJ: Oh, no, ... it was primarily Civil Rights. The anti-Vietnam thing didn't really kick in strongly until I was a senior and continued in grad school. I remember it. I was telling my wife--it was bringing back memories, walking around out here. ... I guess it's still your gymnasium, the old gymnasium, ... the street that's on the side there, where you're building a large building right now, is where we used to come out on Wednesday afternoons with our Army ROTC uniforms and fall in. ... You have to remember, back then, when I was a freshman, ROTC was mandatory for freshmen and sophomores. There were maybe four thousand people who were in Army ROTC my freshman year. So, there were a lot of people [who] got involved in it. ... I remember, it was my senior year, there were one or two demonstrations when we fell in on Wednesday afternoon, and I thought that was really amazing or unusual, because ROTC was so pervasive on campus and the University's a land-grant college and it was one of the oldest--it was one of the original places where ROTC developed. [Editor's Note: Under the provisions of

the Morrill Act of 1862, Rutgers students were required to study military science (which evolved into the University's Reserve Officer Training Corps programs) after Rutgers was named New Jersey's land-grant college in 1864.] [As a] matter-of-fact, I was telling my friends, who are graduates of Texas A&M, which has a large, they call it a corps, ROTC corps. It's very much instilled and part of their heritage and culture in that university. It's a fine university. I was telling them that when I was a freshman, and I think I'm accurate, that there were more ROTC cadets at Rutgers than there were at Texas A&M. They can't believe it, but I believe I'm correct.

PL: I have heard from other veterans of this era, such as an individual I interviewed two weeks ago--he was saying the same thing--that when he was in ROTC, during the 1965-1966 time period, ROTC was so pervasive throughout the culture of Rutgers that, when you guys lined up to do parades, you guys took up an entire block.

ADJ: Oh, we did, and we lined up taking up the entire block. So, here we were, maybe in the thousands falling in, lining up and there were about eight or nine protestors. ... I'm thinking, "You've got to be crazy. We could hurt you, you know. [laughter] There's so many of us, so few [of you]," but, anyway, that was happening. ... Then, the thing that really hurt my feelings deeply was, when I was in Vietnam, I heard that they burned down the ROTC building here at Rutgers. ... It was a building much like the building that's used now, hurt my feelings because ... ROTC is one of my fondest memories of Rutgers. [As a] matter-of-fact, my wife and I went to visit the ROTC building, before we came over here. The Colonel came out to meet us was happy to see us. ... I mean, it's a real small, but very elite group, I understand, that's at Rutgers now. It's like forty or fifty cadets.

SI: I think so.

ADJ: That's what they tell me.

SI: Some of them are in our program. They are all very good students.

ADJ: Yes.

SI: While you were here, the Genovese controversy occurred. A professor said he wished the Vietcong--I am paraphrasing--would win the war and it created a lot of controversy with the New Jersey Governor's race in 1965. Do you remember anything about that? [Editor's Note: Historian Eugene Genovese took a pro-Vietcong stance during a teach-in at Rutgers University in 1965, which led to criticism from New Jersey politicians. The Rutgers administration defended Genovese for exercising his academic freedom.]

ADJ: No, that may have been ... just after my time here at Rutgers, but ... there was controversy developing later. Now, in graduate school, you're sort of sheltered from this. You're with a smaller group of people with seemingly one purpose--graduating. So, you're kind of sheltered from it, but I was feeling those vibrations, because here at Rutgers that sentiment started to take place. Could we stop just for a second? ...

[TAPE PAUSED]



ADJ: I remember, we had to take a course when we were freshmen called "Development of Western Civ." It was required. Everyone took it and it was an outstanding course. It was [team] taught, but the head professor, I may be getting his name wrong, but I remember him being Professor Charanis, or a name something like that.

SI: Peter Charanis.

ADJ: Okay, you remember him? Well, he gave this special lecture. He usually didn't often teach. We had other professors and grad students usually teaching this huge class of one hundred or so ... students, but when it was time for the lecture of the Byzantine Empire, about some--I can't even remember the historical characters in it--but it was about the wife of the Emperor at the time, [Empress Theodora, wife of Emperor Justinian I]. ... I think she was a whore when he married her, [laughter] and then, she had this one act she was doing, apparently, with goose feathers, and so forth, ["Leda and the Swan"], but, when he gave that lecture, it was famous and so popular that ... they would allow people who'd come in who weren't in the class, just to attend. It was standing room [only], but he made it into a play, so funny and, with his heavy accent telling [it], that it was a very sexual type of lecture, you know, describing it in lots of detail. ... Definitely, it was XXX, you know, [laughter] ... but it was such a popular lecture famous and funny. He was a very entertaining, captivating type of lecturer and he was just so funny. ... Anyway, I just wanted to throw that in.

SI: Peter Charanis comes up quite often in these interviews. I think one reason for that is because history was mandatory back then. Were there any other courses or professors like that that stand out in your memory, from outside of your major?

ADJ: Professors outside of my major; like I mentioned, I enjoyed all the courses I took outside my major. One of my favorite courses--I don't remember the professors who taught it; mostly grad taught it--but it was art history. We went to New York quite a bit, ... to the museums, and visited the Frick and the Guggenheim and Museum of Modern Art. It gave me an appreciation for art. That was something that stuck with me throughout my life. I really thought that was very enriching. Oh, we had to do one thing, too--that just brought back another memory. I was in the arts and sciences, so, I had very few of these courses that were in the humanities, but you had to pass a humanities exam ... to graduate. It was always very frightening to me because you had to take it when you're a junior and it had five parts. ... There were art, music, history, philosophy, and one other. It was a serious test you had to pass. I flunked it, along with many, and I had to take it again when I was a senior. ... By this time, I was able to take three semesters of some type of humanities. I had two semesters of art history and one semester of philosophy. I had history by then, ... "Development of Western Civ." I managed to pass it. ... No grade; you just had to be able to pass it. If you didn't pass it, and several didn't, you had to ... come back in the summertime and take a humanities course, and take it again in the fall to graduate. I remember that being the one thing I worried about most when I was here. They don't have that anymore, I understand.

SI: I have never heard of that. Did they still have the swim test when you were here?

ADJ: Yes, had a swim test. I forgot about it. ... We had to take so-called physical education, too. ... I don't know if that's [still around, if] you still had to take that.

SI: No.

ADJ: And that was kind of goofy, yes, but you had to pass a swim test. ... Oh, this brought back a memory that's just amazing. [laughter] Back when I was a freshman, ... one of the parts of the syllabus was to take swimming and we would swim in the flipping nude, [laughter] and my wife can't believe that. I mean, ... we were required to swim in the nude. ... It was embarrassing, but we got used to it. We took our swim tests in the nude. I thought that was pretty goofy. We took things like squash, basic gymnastics, handball, basketball, etc. I think we had to have one year of it. I was very happy when it was out of the way, because it was just taking up time and you just had to show up and do the things and you got an "A" in it, but, I mean, you had to do it. So, one of my nice memories, too, about Rutgers is the library. I don't know where the library is now, but it used to be down there on the edge of a slope. Because I was a commuter, when I got here, I stayed there until it was time to go home. In the in-between times, I read, studied, and sometimes napped. They had these big, leather, soft chairs and I would look out over the hillside. They had a hill back down that way, a slope, and I often would fall asleep for five or ten minutes.

SI: It is still in the same place, they have just completely redone it. I think they have physically redone the highway so much that the hill is probably not there.

ADJ: Oh, okay.

SI: You mentioned that ROTC was very enjoyable for you. Can you elaborate on that? What did you find interesting about it? Was it the marching, anything about the coursework?

ADJ: Well, the marching wasn't fun. [laughter] ... That's my least favorite thing about it, but, let's see, what I enjoyed about it, let's see, when I was a freshman, we studied military history, enjoyed that. ... When I was a sophomore, we studied other things, ... which I can't remember now, but they were various classes like tactics, weapons, military structure, etc. I just thought it was [great]. I guess my father being in the military and thinking, at one time, I wanted to go to Annapolis, ... once I tried it, I just really liked it. ... I was telling the Colonel, when I was a junior and senior, they paid me a seventy-five-dollar a month stipend, too, to go. He said, now, it's four hundred dollars, and it's not just when you're a junior and senior, it's ... every month, but to get seventy-five dollars a month was a lot of money to me back then. It was very helpful, but I didn't do it for the money. Leadership was taught throughout the four years. I was interested in flying, so, I joined the flying wing of ROTC. Then, when I was a senior, the Army paid for me to take flight lessons up in Somerset Airport. So, I got a private pilot's license in my senior year, paid for by the Army. ... I thought that was pretty cool and I enjoyed it, got me hooked on flying back in those days. ...

SI: Had you been interested in aviation before that?

ADJ: No, other than the fact that I thought it would be pretty neat to be able to fly. My uncle took me up for a ride in an airplane when I was eleven or twelve. ... He was learning how to fly in Pennsylvania and I thought that was exciting. I took my first plane trip in grad school, to fly from Newark to Miami to see one of my Rutgers buddies who graduated while I was in grad school. Now that I think about it, it was probably ROTC that really got me interested in flying.

SI: What was the summer camp at Fort Devens like?

ADJ: That wasn't all that much fun. It was like boot camp. You're treated pretty roughly, ... you had a long day every day, but, after you're there two weeks, you thought, you know, I said to myself, "Well, I can do this," you know. You just sort of [endured]. It was nice having the name James, because "J" was kind of in the middle of the alphabet. So, I didn't get called on much and I sort of blended into the wall and ... tried to look like everybody else, so [that] I wouldn't get picked on much. [laughter] ... That part wasn't much fun, but everything else about the Army was largely interesting and enriching. At Rutgers ROTC, it got me inspired and they developed an esprit de corps in you. It made you feel confident in yourself and kind of gave you a feeling of worth. Maybe it's different now to be at Rutgers and go in ROTC, but, back then, it was not unusual to see a bunch of people on Wednesdays in their Army uniform, their ROTC uniform, going to class. I changed at lunch and just kept the uniform on for the rest of the day and drove home in it. That's what I did.

SI: Was it Professor Martens that got you interested in grad school or was it Steve Fox?

ADJ: It was primarily Professor Martens that I remember the most, because I never thought about it [before] and he asked me, he says, "Why don't you think about it?" and he added, "Why don't you apply for an assistantship here?" He said, ... "I know of a research assistantship that's available. Why don't you apply to study hydrology?" I studied the hydrology in the Precambrian rocks of the New Jersey Highlands, which crystalline, granitic type rocks, and I wrote my thesis on that. ... I was paid as a research assistant that whole year to do it. In effect, what I was paid to do developed into my masters thesis.

SI: Obviously, it was some mixture of coursework and independent research. What was the mix like? What was the actual program like?

ADJ: The research was equivalent to a three-hour course. I worked on it most every day. A lot of it involved going to Trenton to look at the records that were at the Geologic Survey filed with the states. I also went to the offices of water-well drilling companies to look at their records. I spent a lot of time gathering data. Later work involved mapping the areas where these wells were drilled. ... I did some of my field mapping with Dr. Vogel and occasionally with Professor Martens. A lot of it I did on my own. Rutgers provided me a vehicle and I'd go on up. ... I remember looking at the rocks up near Lake Hopatcong when a landowner on a horse came out with a big pistol strapped to his side and asked me what I was doing. [laughter] ... I said, "I'm a Rutgers student and I'm looking at these rocks," and he was asking me a few questions to make sure I was who I was, said I was, [laughter] and then, he was telling me about different places where rocks were outcropping that maybe I'd want to go take a look at. He spooked me riding up like that. I said, "I've got a vehicle down there that says Rutgers on it, on the side of it."

Course work included: economic geology, micropaleontology, advanced petrography, oceanography, and logging and core disciplines.

SI: In summary, what were your findings in your thesis?

ADJ: Well, I was statistically correlating the occurrence of the best water wells to various things that you could map. If you had maps that would tell where were better places to drill. ... The thesis was a long time ago. The crystalline of the New Jersey Highlands do not have ... permeability and porosity. These rocks are granites and gneisses; they're tight rocks. These rocks do not have naturally occurring porosity and permeability where water occurs. You have to find places where these rocks are cracked or fractured to develop a secondary porosity. The cracking occurs from pressure such as from faulting and rock movement. Weathering also develops porosity. Cracks also occur as rocks move up near the surface, a pattern appears in it, because of [the fact that] the rocks kind of expand out this way a little called jointing. The rocks don't have pressure on all four sides, just three. So, they develop cracks that are typically vertical, called joints. The water-bearing rocks developed those kinds of things, and there was a correlation to topography, faulting and rock types. I plotted the statistics and related to rock types, elevation, and land forms. How close is it to something like a defined fault or a lineament, that can be seen on aerial photos? Back then, air photos were ... one of the technology things we used back then. ... Now, we use satellites. Air photos are mostly obsolete. Digital, processed satellite images are what are used now. Lineaments are anomalies that appear to be straight lines that are not man-made, a naturally occurring straight line of some kind that is usually related to some geologic structure or rock, fabric or formation or something. Well, you can map those things, and measure how close it is to relate the productivity of those wells to the analysis. Topography turned out to be the most important factor. If you were in a low, that's a good place to drill your well, if you're in those tight rocks. Now, when you're in sedimentary rocks, like sandstones and limestones, like you find in the Jersey Shore, ... you often stay away from lows, because. So, you kind of avoid those, kind of, but, up there, those rocks, the water movement's much slower, and a low is a good place to drill a well. Being close to a fault often provided an outstanding well. Most municipal were drilled in those places. There's a copy of my thesis in the library archive. Dr. Vogel said he was going to have it be part of subsequent publication, but I don't know if it ever was or not.

SI: You received your commission in the ROTC in 1965, and then, you were in grad school for two years. Did you have to do anything in that two-year period?

ADJ: Yes. ... I'm glad you reminded me of that. You had to apply for a deferment. ... In my first year of graduate school, first semester of graduate school, I had an opportunity that was presented to me by the staff, the professors there. They said, "How would you like to go take a cruise on the research ship, the (*Veema?*)," which was out of Woods Hole [Oceanographic Institution], ... "for core work, ... be the assistant geologist?" They'd had a geologist and I'd be the assistant geologist, "And you'd get six hours of credit." So, I asked the Army. I officially applied for a two-year deferment, got that, to go to graduate school. Then, I applied for an amendment to that deferment to have the summer off to go to take this [cruise], work on the research ship, the (*Veema?*), and the Army wouldn't let me do it. ... The Army wouldn't let me do it, because they were only going to give me, it was either six hours or nine hours, and,

technically, I had to have twelve hours to be deferred. I would have to go right in the Army, right on active duty. So, I couldn't take that opportunity to go on the Veema for a semester. I didn't get a chance to do that. So, that's my one regret from Rutgers Army ROTC. I finished my two years of graduate, I was commissioned a second lieutenant and I was deferred for two years. ... After receiving my masters degree, I went into the Army as a second lieutenant. I began active duty service, but what was neat about that, when I started active duty in the Army, I was paid as a second lieutenant with two years' time in grade. So, I was making about 150 dollars more a month than ... the average second lieutenant starting out, [laughter] because I was in grad school and had two years' time in grade. Well, I'll say this, too--when I was in Vietnam, as a helicopter pilot, I never heard of, nor met, another Army aviator ... flying there with a master's degree. Many hadn't finished their bachelor's degree. Most of my army friends finished up after they got out of Vietnam ... I was probably one of the most educated helicopter pilot in the army.

SI: How closely were you following world events, particularly in Southeast Asia, during that period leading up to when you left?

ADJ: Pretty close, because I knew I was going to Vietnam. ... It was very worrisome to my parents, because helicopter pilot was a dangerous avocation in the Army ... during [the] Vietnam time.

SI: You got your master's in June, around that time.

ADJ: Well, there was another little story, aside from that. I finished all my requirements in June, but one of my professors didn't turn in my paperwork on time. So, I technically didn't graduate in June. I graduated in the next graduation, period, even though I wasn't even here, but it almost broke my mother's heart, because ... I didn't get to walk across a stage, you know, for my master's degree at that point. It didn't mean anything to me, it did to her. I didn't have my name in the paper, which troubled my parents. ... So, I technically graduated in September... on active duty in the Army. So, they mailed me my master's diploma.

SI: How quickly did they take you into active duty?

ADJ: Immediately, yes.

SI: Okay, a few weeks.

ADJ: Oh, one week.

SI: One week, okay.

ADJ: ... So, here, I had ... been in school all this time. And, the first thing they did when I go in the Army is, they sent me to armor school. So, I spent six weeks in armor officer's basic school, which was lots of fun, and I found it to be pretty easy. ... Whether I graduated third or fourth in the class, something like that; I didn't think it was all that difficult. The most difficult thing was the 12-mile run. The test you had after you graduated from armor officer's basic was both physical and mental. You had to run twelve miles and, within that twelve miles, which took

... most of the day, there were ten written or oral tests that you had to take. You're running with a canteen and you're tired and sweaty. ... You're graded on how quickly you run it and the academic grades you get, on each one of those tests. Each one of those tests involved some skill taking apart a fifty-caliber machine-gun, or some a map exercise or it was just a written test of some sort or another. ... So, you ran as fast as you could--I did--to get the best score I possibly could. We had one guy from [Texas] A&M who was a track runner, who was an outstanding runner. He graduated number one. I think I was at or near the top academically. I was down farther in the running part. Anyway, that's what it was. So, my first six weeks were in school. I then became an armor platoon leader.

SI: That was all at Fort Knox.

ADJ: At Fort Knox, yes. I became a platoon leader, where I had six tanks, six Patton M60A1 tanks. ... I had 40 enlisted men and five sergeants in my platoon. We were part of a company, which was part of a battalion that supported the armor school. We would take tanks out, sometimes thirty or forty of them, late at night, as early as morning, and, sometimes, act as aggressors for the school. Often we would supply the equipment that the school used, and so forth. So, I did that for three months. Earlier I applied for fixed-wing school in the Army, but the Army didn't need fixed wing pilots. Even though I had a fixed-wing pilot's license, they sent me to helicopter school in the winter at Fort Wolters, Mineral Wells, Texas. It was my first time to ... go to Texas, and my first time to have Mexican food, both of which I love and so forth. I got married the same week that I graduated from grad school, and joined the Army. We went to Texas and I entered flight school. Flight school was very demanding, because ... you had four hours of classroom work, and then, you had four hours of flying, or preparing to fly. Sometimes, you might be on the ground watching or studying, but you were there in the field. ... Because you had four and four, it often ended up being a ten to twelve-hour day. It was tiring. You did that five days a week and you studied on weekends, and so forth. So, it was very demanding and I was telling the Colonel, ... when we started in flight school, they gave us all these safety statistics. They said, ... "Since the Army's helicopter school started," in the '50s, "we've only had seven fatalities." Well, [in] the four-and-a-half months I was at Fort Wolters, guess what? They had seven fatalities. There were so many aircrafts in the air, close to each other. ... The class had about fifty people. We were officers. There was also a warrant officer candidate school where there. Warrant officer candidates went through an officer training program for about three months, and then, they went to flight school right alongside us, but not in our class. After you graduated from a primary school you went... either to Fort Rucker or to Fort Hunter/Stewart, [Hunter Army Airfield at Fort Stewart, Georgia]. By the way, I graduated number one in my class at Fort Wolters, and was sent to Fort Rucker. The students who went off to Hunter/Stewart immediately got into the turbine-powered Hueys, [the Bell UH-1 Iroquois]. So, they got that advantage of having more hours in the Hueys. We were in these little aircraft called an OH-23D. It's called a Raven--an obsolete helicopter--D model. That's what we flew in primary flight school. ... There was another helicopter, the TH-55, which we called "The Mattel Messerschmitt." It looked like a little bumblebee, but the 23 that I flew was a real helicopter. It could be used [for a variety of things], and I'll tell you about it here later. I went off to Fort Rucker and they immediately went into instrument training, in a TH-13T, made famous in the Korean War TV series, MASH, which is another obsolete helicopter. ... I never even got to enjoy flying it--I was under the hood all the time--and I had difficulty in this part of the syllabus

that dealt with instruments. It's because I just didn't get comfortable flying that TH-13T, I wasn't one of those natural pilots. I had to learn how to fly it and I wasn't very in that TH-13T ... So, the Major looked, talked to me and he said, "You're struggling here." He said, "Now, why?" He said, "You graduated number one in your class at Mineral Wells. We can't have the number one graduate at Mineral Wells be knocked back or washed out." ... So, he personally gave me another three hours of training and got me through that part. Then, we went into Hueys and the Huey was so much easier to fly. It was a modern helicopter and it was a jet turbine engine. So, immediately got into the Hueys and flew just fine and graduated, academically, near the top of my class academically and, overall, I was in the top ten percent of my class, even while I struggled with that instrument part. ... Flight school took a year, and during that time I had a daughter who was born at Fort Rucker in Alabama; ... that story is going to come back in play here in a minute. So, my life's going to get a lot more interesting to you, I think. ...

[TAPE PAUSED]

ADJ: We came back to New Jersey with a three-month-old baby, and found an apartment in Lawrence Harbor, I had three weeks home, and caught an airplane in La Guardia that took me to Washington where I went to catch a charter to Vietnam. It was a pretty lonely, sad time in my life right then, because [I was] heading off to Vietnam. ... I spent the night at Fort Lewis [in Washington State], and then, flew nonstop to Japan. The plane refueled and took off to Vietnam. ... It was on a big 707 commercial jet, with all soldiers, didn't know a single person. ... As we made our approach to land in Vietnam, ... in the big commercial aircraft, and, I hear the flaps go up and the wheels go up and think he's making a go-around. I've never seen a commercial plane like that make a go-around and I said, "Well, that's different," and, as the airplane came around and landed, the pilot said, ... "We had to yield to tactical aircraft." So, I said, "Oh, this is really spooky." We landed at night and I was half-expecting grenades to be thrown and mortars to come in. They drove us in busses with window shields on them for [protection]. It was real hot, but they had these, like, metal grates over them. I learned it was to keep grenades from being thrown in, but, we weren't any place dangerous. We were on Tan Son Nhut Air Force Base, and had this orientation, where gave us jungle uniforms and took us to a place to sleep. As we got into this place to sleep, I started not feeling well and became very ill. ... I was [ill for] three days and I didn't ... see a doctor, because they told us pilots, "You have to see a flight surgeon or you'll be grounded." ... Orders finally came in and I was feverish, wasn't feeling well, nose was all blocked up, sore throat hurt all over. I read I was going to American Division in I Corps.

[TAPE PAUSED]

ADJ: This sergeant said, "Oh, you're going to American Division in Chu Lai," and I asked, "Where is that?" pointed on map "up there," and he added sarcastically, "Oh, you're dead." He seriously said that to me. "Ooh," he said, you know. ... It was like, "I don't even know where I'm going and, now, I'm feeling like [it will be bad]," and so, we get on this [plane], got all my gear, including a guitar I brought with me, too, and got on this C-130. ... This big C-130, the back opened. We climbed the ramp and there are no seats on it. Here are a hundred soldiers, getting on this C-130, and then, a crew chief says, "Okay, grab [a hook]. Everyone put your fingers in that," and we're making what we call a combat insertion. Everyone had to put their fingers in these little hooks, these tie down hooks, and had to hold our luggage ... between our

legs. Seriously, that's how we took off. Then, the aircraft backed out of sandbag revetments. I'd never seen an aircraft back out of revetments before. We landed in Chu Lai in I Corps in the north and it was really hot and I was not feeling well. ... I'm standing in another line in the heat and pass out. They took me in to ... see a doctor, who at first thought I had malaria, which is impossible, I learned since I was only in Asia a few days. He put me into this MASH [Mobile Army Surgical Hospital] hospital. I was not at the real nice, modern hospital that they have in Chu Lai. ... I get in this hospital and I'm in this hospital, feeling really ill, and there are several other patients. ... Some were wounded and one big sergeant had jungle rot feet. I was the only officer in this quansahut similar and primitive to the movie *M\*A\*S\*H* [(1970)] or the TV series *M\*A\*S\*H* [(1972-1983)]. I'm in there, feeling really lonely and depressed. I don't know anyone, ... but the corpsman and doctor took care of me and saw me every day. ... I lost my voice; I couldn't speak. I had laryngitis and, after three days, I began to feel better and was up and moving around. Oh, and that second night, they had a mortar attack and they had to take us all [out] and put us into a bunker. We're all sick. ... They're helping us, I could walk. It was kind of scary. On the third day I ... had my first experience going into one of these outhouses in the daytime. ... So, I'm ... taking care of business. It has screens all around it, to keep air coming through, and I see three Vietnamese girls walking up holding hands talking, giggling to each other. ... I was really not feeling like I wanted girls to be walking by when they can see my head and they know exactly what I'm doing. ... That was not funny at the time; ... now, it's hilarious but it was not funny at the time. So, then, I walk up this big cliff and looking at this beautiful South China Sea and I see this helicopter go by. ... I'll be darned, it's the same kind of helicopter I flew at Fort Wolters in flight school, and I said, "What the heck?" I said, "That, those things (OH-23 Ravens) are obsolete. I can't even believe they're using them," and I'm thinking to myself, "Well, I'm in the armor branch. They're going to surely send me into some sort of a gunship unit or something exciting like that. I'm going to be in some really exciting gunship unit." I just knew that, and I'm seeing these little helicopters go by, ... the kind I flew in primary flight school. Two weeks later--no one knows I'm there, I'm getting no mail, I'm just alone. No one comes to visit me, because no one knows who I am or anything, or where I am, because I hadn't been assigned to a unit. Somebody comes to pick me up and I'm assigned to the 23 aviation battalion. A second lieutenant--I'm a first lieutenant now--is filling out this paperwork on me (I was promoted to first lieutenant at flight school). He says, "Oh, you're going to Americal, but you're going to Div Arty Air," and I said, "Okay, what is a Div Arty Air?" and he says, "Oh, that's division artilleryaviation." I said, "I'm in armor, I'm not in the artillery branch." He goes, "That's where you're going. ... They need pilots." So, I said, "Okay, well, what kind of aircraft do they fly?" and he said, "Oh, they fly the OH-23s." "Darn 'I think' an obsolete helicopter." Later I learned I would be flying a G model, which is a more beefier model than I flew in flight school. Most pilots, when they start off in Vietnam, at that time, flew as copilot for three to four months in a Huey. The aircraft commander is showing him the ropes, showing him how to do things safely, and so forth. When you're flying a scout helicopter in Vietnam, you fly alone. ... They gave me five hours of orientation flying, ... two hours dual and three solo. In the two hours of dual, the veteran pilot showed me the firebases, places we typically flew to. Two days later enough to [fly], I'm flying my first mission, and I'm scared to death. I've got a map, I've a booklet of radio frequencies and call signs. I have two little radios--and they told me the FM radio hardly ever works--and so, I'm scared. You wore a "chicken plate," which is a ceramic plate of body armor, over your chest. You wore a flight suit, gloves, helmet. ... The aircraft transmission was to your back and you sat on some armor plating, in a



little seat like that, and that's what I was flying in and picking up, carrying all kinds of stuff in this little aircraft for the first couple of months, until the Loaches [the Hughes OH-6 Cayuses] arrived to replace the OH-23's. When the Loaches came, we got a "Corvette." It was the latest, most neatest helicopter at the time. ... It looks like a little eggshell, with a powerful turbine engine. ... It cruised at 108 knots, which was as fast as a Huey. The little Raven I flew flew at sixty-five knots..., almost, almost twice as fast. It had ... a back seat and, for more types of missions, ... it had an armored-plated seat all around you. You felt invincible, as you sat in this nice armored seat, with your chicken plate, which is the armor-plated vest, and you had a flight suit and gloves and helmet and you thought you were pretty safe. Of course, you're twenty-two years old, and full of piss and vinegar. We flew all sorts of scouting missions: ... Convoy cover, ash and trash, recon, liason, etc. When you flew convoy cover, you flew with a crew chief with an M60 machine-gun off the side. Often we flew important passengers, like a technician or a colonel or somebody, or a soldier who was needed for some [task], had some specific skill, that had to go out somewhere. We also flew people out, on missions like LLRPs, or long-range reconnaissance patrol people, that we'd insert with a couple helicopters. ... You'd drop them off in one place and you'd pick them up six or seven days later in another place and they'd set up listening devices, and so forth, in the field. ... We also supported the Marines in Da Nang, in scouting missions. We'd fly ... around with an aerial observer. Sometimes, the observer was a second or first lieutenant who was an infantry lieutenant, who wanted to see the terrain, or a captain who wanted to see, what the land looked like. We flew for MACV [Military Assistance Command, Vietnam], which meant that we flew Vietnamese civilians and soldiers around. I've flown prisoners, ... North Vietnamese prisoners, Vietcong prisoners. I've flown American prisoners to headquarters in Chu Lai. I never knew what they did, but I've had to fly them, pick them up and take them places. Flown peasants--I would never fly a South Vietnamese without an American putting him onboard, because you never knew who you were carrying. ... We couldn't carry a lot of equipment, so, we only carried really key equipment around, like FADAC [Field Artillery Digital Automatic Computer] computers, which were really important back in those days for the artillery guns, and so forth. We flew those around. We would fly various types of key things around, like instruments, radar equipment and that sort of thing, that they set up. We would fly hot chow to places that the Hueys couldn't get in very easily, because the Loach was small and could fit into really tight areas. Like, lookout points and pinnacles and tops of mountains and things. The Colonel, a full-bird colonel, wanted hot chow to go to every one of his soldiers at least one day a week. So, we would fill up the back of the helicopter with hot chow, ice cream, sometimes, and we would take that up to them. We flew a small helicopter with a variety of missions it could do. We would also fly out to ships supporting us, like the [USS] *New Jersey* and the *USS Boston*. ... We flew from Da Nang all the way down to Duc Pho, and then, inland over the mountains, about forty or fifty miles. Never flew across the borders. ... Our terrain varied from mountains to coastal plain. Those are the types of missions we flew in Divarty Air. ... I'll tell you about some of the missions, in more detail. I know you probably want to hear something about them. ... I received seventeen combat Air Medals. Each Air Medal was for twenty-five combat missions. I experienced a lot combat type flying. [When] you took off each day, ... you had polished boots, you were clean, showered every day, although the shower we had was not [with hot running water]. We had running water to drink, but no running water for showering. ... The pilots before us put together a tank from a jet aircraft above this little shed that was built behind our hooches. Hooches were just little frame buildings with screen windows and metal roofs that were built ... before I got there. ... The tank was put

on the top of the shed. If you remembered to fill it up with water, the sun would heat it. So it would be relatively warm when you showered in the morning. To tell you about our hooches. Everyone improved the hooch that you lived in. Over time, they became more comfortable. We built a little club by extending two hooches together. The people before us built that and we improved it with furniture and other things. ... We had at least two meals a day at the officers' club, ... which was close to us. ... We had breakfast at the officers' club, and then, ... our shoes were always shined and our uniforms were always clean from our hootch maid, Luan. We smelled civilized, unlike the people we would pick up in the fields, who did not smell [good]. They didn't know they smelled bad, but ... we knew they stank. ... When we took off, we would turn and over the sea toward land, in five minutes, you could be shot at. It was just that kind of a war. When you returned to our heliport, and you'd be in a nice, clean, relatively safe, place. Except ... we did get rocketed on a regular basis. Rockets would come in and be poorly guided and aimed but occasionally did hit something. So, that's the kind of war it was. You lived in a relatively safe place and you're clean, yet your flew over dangerous territory every day. We ate well. [We] ate most of our meals there, except, sometimes, at lunch, I'd eat with the troops on the field. ... That's the basic kind of thing we did on a day-in-and-day-[out] basis. ... The first few months I was there, I flew a lot. They would sure work the new guys real hard. I flew 110 hours that first month. That's a lot of flying. All of flight school was 220 hours, in a year, and that's a lot of flying. ... I flew over 100 hours a month for the first three months I was there.

SI: Were there limits on how much you could fly in a given time period?

ADJ: We were supposed to fly no more than a hundred hours per month, but we sometimes flew 110 hours, but, then, after a few months, you flew less and less. ... I became the operations officer, the guy assigning everybody to fly after about nine months. We flew a lot. Now, a lot of times, you'll have warrant officers who will say the officers didn't fly that much. They were doing all the flying they'll claim. In our unit, the officers flew as much as the warrant officers. ... I mean, in a lot of Vietnam units, the officers flew less than the warrant officers, so, there was sometimes this conflict between who were the best pilots, etc., officers and warrant officers--not in our unit, though. Not in our unit. We all flew. Rank was not important in our unit, and we treated our enlisted men like brothers, because these were the guys that kept us alive. They kept the helicopters safe. Our crew chiefs were like part of our family. I'll tell you some of the goofy things we did that were definitely against Army regulations, and so forth. ... Because we lived on the slope of this hill, near in the bottom --we captains, lieutenants, and warrant officers. ... Lieutenant colonels and majors lived just up the hill from us, called "Silk-Stocking Row." We were accused, on more than one occasion, of fraternizing with the enlisted men, and we could give a rap about that, because those guys were keeping us alive. They were part of our family, but, anyway, we did hear that complaint on at few occasions. Occasionally, we had those majors down there with us, partying. ... We had many barbecues with the enlisted men. We had sergeants that could find anything. I'll give you an example. ... They would communicate with everybody and they would trade this [or that]. They would trade cases of steaks, because, as pilots, we could transport anything over there. We could get steaks. ... For example, I'll tell you what we got from the Navy, on one of the radar bases-- about five miles off the coast. There was a little village there--we filled up a Loach with lobster, in little bamboo cages. ... We flew lobsters on their one and only helicopter flight over to where we were and had a heck of a barbecue. ... We had sergeants that could do all sorts of "midnight requisitioning," they called

it. They got so good at it, we had the Colonel call us a couple of times to get steaks for him, other times he might say, "I can get four cases of steaks if you can get an aircraft to Da Nang." We could get an aircraft anywhere. [laughter] ... We could get all kinds of interesting stuff, and so, we had great barbecues and the enlisted men were always part of that. ... We would trade the SeaBees [US Navy Construction Battalions, nicknamed CBs or SeaBees] for steaks and shrimp. ... We had lots of enemy weapons, which we couldn't bring them back to the States, but we could get those, and we had a little village nearby where they sold Vietcong flags and North Vietnamese flags, that they'd dip them in chicken blood for us. They were good enough to trade. We'd take those flags, dipped in chicken blood, and an AK-47--we could trade the Air Force, Navy, or the SeaBees, for all kinds of food and plywood. We even got the Air Force to fly us in a load of furniture one time from the Philippines that we used in our little clubhouse. They brought it in a C-130 and we found them an AK-47 and that's all it took. [laughter] We were good at trading. That was a lot of fun. ... I forgot to tell you, I got to spend Christmas and New Year's in the Philippines, in Manila, which was a lot of fun, because I was sent off on a so-called one-week jungle survival school. ... Actually, it was a one-week school that ended up being two weeks, because it recessed right into the Christmas/New Year's holiday. ... It was a survival school with two days in the jungle and two days of classroom. I got to spend two fantastic weeks at a real hotel, with flushing toilets and all sorts of women around, and it was just nice--no bunkers, no mortars, no rockets coming in, no one shouting at you. So, let's see, well, I was telling you about some of the missions and our day-to-day lives. We had rock and roll shows once or twice a month. They were a lot of fun, getting to them in our large diversion area sometimes was difficult. They had this ground rule, in the division where an officer couldn't drive any sort of ground vehicle. I mean, we fly multimillion-dollar aircraft--but they won't let us [drive]. It was just a stupid policy. I don't know why it was. We had ... lots of [vehicles], jeeps and three-quarter-ton trucks. One time, we got one of our sergeants [to drive us], because we all wanted to go to a show. Air Force officers' club, down by the airbase, which was about three miles. We lived in a big compound. There was nothing out there except a few little, small villages, but we had ten thousand men, Air Force and Army, living in this big compound at Chu Lai. We wanted to go to this officers' club and you had to get a duty driver to take you and it was always a big hassle. So, this one time, our sergeant drove us, then he changed in the back of the truck. We made him a warrant officer for the day. He had one of our warrant officer's shirts on and hat's on and he was Warrant Officer (Broderick?) that day. We had about ten or twelve real officers and real warrant officers in this thing ... and we had this guy driving. Because he was a sergeant, he could. He was a buck sergeant, three stripes. He drove and he was one of our crew chiefs and, when we got there, he'd jump in the back. ... He would put on that shirt and he became Warrant Officer (Broderick?). Now, this, we're breaking all kinds of rules, I want you to understand, [laughter] right now. ... So, we go into this officers' club for this big rock and roll show and we're having a great time and we're all together. We all stayed together, but, for some reason, I don't know why, ... this Air Force first lieutenant, or second or whatever, a captain, started harassing this warrant officer and he wasn't believing he was a warrant officer. I don't know where he got that inclination. Maybe somebody recognized him, but we all just gathered around him and ... they were going to have to deal with all of us. ... So, anyway, that was the only time we were challenged. We did that [on] more than one occasion. We also had another occasion that was kind of funny. We had this guy, his name was Pops (Baker?). He was the oldest pilot. He was the oldest first lieutenant we thought we ever saw in our lives. He was maybe thirty-two and he had four kids and we called him "Pops." He initially was a sergeant and

... became an officer and went to flight school. ... He was also probably our worst pilot, too, but that's another story, but ... it was Pops Baker, and Pops Baker and one of our sergeants were off doing a little midnight requisitioning, in the middle of the afternoon to--it was one of artillery battalion areas, where there was a lot of plywood. ... Our three-quarter-ton truck's kind of a high center of gravity. They had a load of plywood packed in the trucks bed that they were taking it to make ... where we lived a little more comfortable. We were putting plywood up on the bare studs and we were using torches to kind of give the room a little knotty pine look, we were kind of making our living conditions a little bit nicer. So, he was stealing some plywood for us, but, as he's coming down this hill, the plywood shifted and it knocked the three-quarter-ton truck over on its side. ... They were caught, red-handed. That incident took four cases of steaks to get the two of them out of hot water, [laughter] Our Operation Captain called the artillery captain and said, "You know what I think? You know we are the guys that call you every day to schedule Chinooks with beer that you need? ... You know, we're the guys who do that for you every you need a lacer drop somewhere." It finally took two cases of steak and they dropped all the charges and nothing was ever done. [laughter] ... That's just a little example of how we did things and got things done and kept people from getting in trouble for doing, sometimes, silly things.

SI: Can we take a break?

ADJ: Yes.

[TAPE PAUSED]

SI: You described the wide array of missions you went on, but, when you first arrived in Chu Lai and started flying missions, what was that like? What were the early missions like for you, both in terms of what you did and how you felt about what you were doing?

ADJ: Well, okay, let me tell you, first, before I answer that question, if I could, about flying in Vietnam versus the way ... we were taught to fly. We were taught to fly kind of leaning forward and resting your arm on your knee --they called it--the limp wrist thing. We were also taught race-track-like. This is how you usually fly in flight school, and we're taught to fly patterns that were kind of like patterns you had ... at airports, and with safety being always the issue, ... Okay, when you got to Vietnam and combat flying, you had to throw all that away. You need to be safe from ground fire. Instead of leaning forward with a limp wrist, you leaned back into ... the safety of your armored seat. That's when you felt safest taking off and landing. When you're up in the air, it was fine to lean forward, but, when you were coming toward the ground and taking off from a dangerous area, you leaned back in your seat, which seems awkward, but you became used to it. That's where ... all that armor plating material that was protecting you was best protecting you, surrounding you. Another thing you did is, you learned to turn to the left, because, in a single-pilot helicopter, you flew in the right seat. "Why do you turn to the left?" Well, turning to the left, if you're going to be shot at, what's going to happen? You're going to be shot from the left side of the aircraft first, before it gets to you, and no one had to teach you that. That's just innate--you turned to the left. If you have somebody in the left seat, they're going to want to take a bullet before the pilot gets hit. Your passenger doesn't how to fly anyway. So, you turn to the left and corkscrew down and you corkscrew up, which is less safe if you lose an

engine, but it's safer from the standpoint you're staying over ... territory that is, safer than the territory around you. ... We also had a "dead man zone." The dead man zone is ... fifteen feet above the ground to fifteen hundred feet above the ground. At all times in combat, you wanted to be below fifteen feet and going as fast as you can or you wanted to be above fifteen hundred feet, out of the range of small arms fire, you're not out of range at fifteen hundred feet--of range of a fifty-caliber or antiaircraft or twenty-millimeter, but you're not out of range of rockets. The first missions that I had, ... they were trying to be real safe on the new pilots. They sent you to places that were easy to find, so [that] you wouldn't get lost, because, remember, we're flying by ourselves. They ... sent you to do various easy to find safe landing 2 ones or LZ's. You have these missions that, for the first month and as 2 mentioned they fly you a lot. These are easy things to find for you, so that, for the first month, ... These missions usually involved taking some passengers out there, like a radar specialist, ... a mechanic, or an electrician fixing some sort of electronic equipment out in the field. So, somebody with a high skill level would get a ride out, or taking you could be taking a major or a colonel who wanted to check on this or that. ... So, those were the first kinds of missions that I got. Later on, you got into more missions which were dangerous, like convoy cover or flying for the MACV, which meant flying for the South Vietnamese Army. ... You would fly to places that were little triangular compounds out in the boondocks, where there might be two American advisors and they'd be living with a company of Montagnard tribesmen or South Vietnamese soldiers or Rangers. So, those are the kinds of things, missions, that you would do initially, later on, you do armed scouting missions or flying for the Marines up in north [South] Vietnam, or taking, occasionally, like, Navy Seals out to some place and dropping them off, or taking long-range reconnaissance patrol people (LRRP's) to set up listening devices in some place and picking them up later. ... Because our aircraft were small and can get in real quickly and get out real quickly, ... they could go places where the larger aircraft could not go. So, we started doing those types of missions. Let's see if I can think of any others.

SI: Just for our reference, how many men could you take in at one time?

DL: Well, the Loach carried three passengers--that's the OH-6 Alpha, the aircraft that I flew mostly. We only could take two passengers in that little Hiller that I flew for the first couple of months, but we could take three [in a Loach]. ... A Hiller was easy to overload and get out of balance and get your center of gravity out of balance. In a helicopter, the rule is, for combat flying, and so forth, to be safe, if you can hover, at three feet, all your instruments are in the green, you could safely take off. So, you had to ... be careful of overloading and density altitude. If you were going to some mountain, a place in the mountains that was two thousand feet higher than where you were here, you could have a problem landing because although you would hover at sea level you may not be able to hover at a higher altitude. Then, you had to plan your landing right to the ground, because you might not be able to hover. ... That's why we landed hard without hovering. The Loach had a powerful engine, it was difficult. A few times--carried five passengers back, that were just [hitchhiking]. I might be landing at some fuel depot place there are sometimes soldiers hanging around, saying, "Can you give me a ride back to Chu Lai?" or whatever, and so forth, and so on. That happened frequently. They just needed a ride back to their [unit]. They were going on R&R or they were going back home or something and it might be another day before their unit can get them back. I just had two guys sit on the floor in the back with feet on these kids. And their buddies would hang on to them tight and they would

hang on to the helicopter. Their other buddies would be seat belted in, they'd be sitting on the floor of the back seat and putting their feet on the skids and I'd just take them on home. That helicopter would do that just fine. If it hovered and if I wasn't going over anything dangerous or anything, I'd [do that]. The loach was a safe aircraft. ... It was also built like a racecar, with roll bars around it, so [that] it could withstand a horrendous crash, and I saw some terrible crashes in our unit and the guys survived. ... It also only carried four hundred pounds of jet fuel, which is kerosene, which doesn't burn so easily, whereas the Hiller that I flew with used gasoline and a reciprocating engine and they would catch fire if they crashed. ...

SI: Do you remember the first mission where you clearly recall coming under enemy fire?

ADJ: Yes, but ... let me tell you it was often hard to know you were under enemy fire, because you usually couldn't hear enemy fire unless it was real close. Getting hit feels like someone hitting the helicopter with a hammer ... all the doors and side windows were off the helicopter. You didn't fly in combat with doors ... so [that] people can get in and out real quickly. If you crash, they can get out quickly. ... it was just safer and it was the logical thing to do. The only time we put doors on was when it was very cold, [you] had to fly very high and you had to fly in someplace that you're not apt to be shot at or something. ... Because we had no doors it was noisy. So, you have to have [ear protection], to protect your ears, because it's so loud, you can't talk. It's not like the movies, where you can talk to somebody next to you. You cannot shout, you cannot talk to the person sitting next to you except on intercom. The people who flew with us a lot, we made sure they had ear protection, ... Frequent passengers had their own helmets like us. When you had that helmet on, you couldn't hear anything, ... except through the intercom. I'm exaggerating a little bit, but not much. ... If the engine wasn't running, you could talk to somebody and shout at him and you could hear him, but, with the engine running and that helmet on, you couldn't hear, the helmet protected your ears from ear damage from those jet engines. So, when you were shot at, you couldn't hear it. When you knew you were shot at, you could actually see it or it actually hits the helicopter or it's so close, you can hear it, because, if it's real close, you can hear it. So, the first time that I knew I was shot at, I was coming back from Duc Pho in an OH-23 and I heard some bangs, but I wasn't quite sure what I was hearing. ... I thought it was something that had to do with the engines, you know. ... I was hearing something, but, as I came in to land, they said, "You had a large plume of oil coming out the back of the helicopter," and so, I was leaking oil out of the helicopter. ... I didn't know I was shot at, didn't know I was hit. ... below in the oil pan. Most pilots who got wounded in Vietnam were shot in the legs, because your legs are in an unprotected area underneath the helicopter. You had little windows down by your legs, in case you had a sling load, so [that] you could see the ground. So, that was the first time and I didn't know it for sure until I came back, but, other times, I could see it or hear it. ... When you can hear it, it's real close, like out the side of your helicopter. Do you want me to tell you about one or two of those times?

SI: Sure.

ADJ: There were about three or four times when I really was in serious danger and, the first one, I wasn't shot at, but I could tell you that I was in a lot of danger. ... Remember when I was telling you ... the aircraft we were flying were replaced by these new, modern Loach helicopters? Well, the first two helicopters we got, two of my buddies went down and picked

them up and brought them in, but they were used just to transition pilots into them. ... They had no armor seating. They just had little web seats. They were lightweight, with no armor plating around the engine, which the combat helicopters had. They were just to be used to transition pilots into the new aircraft. To fly legally, you had to have five hours. So, my friend, his name is Connor Dotson, who is a lifelong friend --he's retired from the Army as a colonel and retired from Continental as an airline captain--he was our best "stick," our best pilot. He was avocation was our unit's check pilot as his secondary job. You had to have a check ride every year, you had to be transitioned into aircraft, new aircraft, etc. He went down to Tan Son Nhut to learn how to fly the new helicopter. It was a very easy helicopter to fly, by the way--and so, he came back and he was transitioning us into it. So, Lieutenant (Duffy?), another buddy and myself, were flying with Dotson. We each flew one hour, of dual with him--I mean, with our hands on the controls. ... Duffy got his hour in, and then, Dotson got out of the helicopter and said, "Okay, ... why don't you each get in another hour-and-a-half." So, I flew my hour-and-a-half and came back, refueled, and then, he got in, flew his hour-and-a-half. Now I was going to be in the left seat and he was going to be in the right seat, flying it. Now, it's his turn to fly as pilot in command, rather than copilot. Now, I had my M-16 with me--I didn't go anywhere without the M-16--I had a bandolier of ammunition and I had a survival kit. Our survival kit was a radio, an emergency radio, that you could [use], handheld, and I had additional ammunition with me ... Our survival kit had a little flare gun, in case you ... crashed somewhere and you had to be, try to get, picked up. So, we had that and he had a forty-five-[caliber pistol] and I had a thirty-eight-[caliber pistol]. So, we're out there, zipping around, in safe areas when we hear, "Mayday, mayday, mayday," and, all of a sudden, "Salvation," which is the controlling ... agency, like an FAA [Federal Aviation Administration], comes on and says, "Any aircraft in the vicinity of," blank, blank, blank, you know. "We're near that area," and we said, answered that, we were close to where the mayday was. It was about eight miles to the north in the mountains, where we were flying along the highway, in a nice, safe area, Highway 1, they called it. A marine OV-10 [responds, too], which is a twin-engine Marine OV-10, twin-engine spotter aircraft, carries machine-guns and rockets, but it's primarily to mark targets for jet aircraft that are going to come in and drop tactical ordnance. So, we're saying, "Well, we're close." We're talking to the OV-10 pilot. "We can't be very far. Give us your coordinates," and he's trying to give coordinates. You give coordinates to an Army guy because he has an Army map and he has coordinates on it. That's how we find places, and he says, "No, we're on such-and-such a radio. We're on the 045 radio from Chu Lai, twenty-three clicks," which are nautical miles out, and we say, Now, we say, hold on a second, you're talking to the Army. We don't have a TACAN [tactical air navigation system] and we don't have an RMI. We don't have a VOR [VHF omnidirectional radio range] on the aircraft. You can't give us a radio," ... and then, Salvation comes on and says, "I've got you on radar." They said, "Turn to a heading of 325." So, we turned to a heading of 325, "Climb to an altitude of three thousand feet." So, we climbed to an altitude of three thousand feet. Now, we're going over these circling peaks and he said, "Directly in front." ... All of the sudden, we see an OV-10. So, we flew up to the OV-10 and we saw this downed O-1, which is a [fixed-wing Cessna] Bird Dog, an Army Bird Dog, in tiny, heavily wooded ravine, with wings broken, and see two guys on top of the wings. ... We said, "Wow, we can get in there in this Loach." A Huey tried to get in and couldn't do it. "We try in that thing." So, he said, "No, don't, don't." No, I guess a Huey hadn't tried to get in. He says, ... "Don't try to go in yet." He says, "My wingman will be here in zero three minute," and so, sure enough, here comes another OV-10 in and they're flying in formation. ... We're making an approach and they're putting their flaps

down. They've got their gear down, they're making a lot of noise and we're coming in. ... As we're coming in, ... we're getting slower and slower and, all of the sudden, they zip past both sides of us, and passes left of the crashed plane and turns off to the right. One stays down low as the other one, "Vroom," goes, takes up his wheels and gear and flaps and heads up high. We're coming lower and lower. ... we're hovering above the crash site and (Duffy's?) flying, looking out door with my M16 to the left, Duff starts hovering down this gorge. Now, we're in triple canopy jungle in "bandit country" now. We're hovering straight down this little, tight, narrow little gorge and I'm hanging out the aircraft, looking to keep the tail rotor and trying to [cover us] with my M-16. We're going down like that and the collective's up very high, because we're hovering, you know. The collective is what you control the pitch of the main rotor. It's your power. It's up very high, I'm leaning out across the collective. He's nervous, saying "check the tail rotor" and we slowly slip to three or four feet on top of the crash victims. ... They're all bloodied and one is laying down and sitting with an M-16 they can't get up to climb in the back of the helicopter. They're too hurt. They're just looking at us with vacant helpless eyes and, they looked really bad. I mean, they were in a terrible crash and ... hanging in trees in this valley on the wing of an airplane. They had climbed up on top of the wing and the wings are folded on itself. We couldn't land on the helicopter. We couldn't do anything more than stay a few feet above them. That's all we could do was, ... I threw them a bandolier of ammunition, because one had an M-16, and threw my survival radio the one sitting was trying to crawl to it. ... We radioed OV-10's that we can't get them in the aircraft--we hovered up to the top of the trees and just hovered, low, all around. We just barely could see the ground. When we were down there below, in the ravine, I looked up and told Duffy, I said, "If somebody peeks over the hill, I'll shoot right through our own rotor blades." It was that tight. All we could do is hover around at tree-top level above them to protect them. From the enemy coming down to them - we were in a very precarious situation right there and those OV-10s are diving in low, making lots of noise, to try to scare anybody. ... We're trying to be a target for enemies that could be right around there getting them distracted from the two (downed?) pilots.

[TAPE PAUSED]

SI: Let me turn this on.

ADJ: What I was trying to say is that when you're in trouble, everybody's hearing it and there's nothing another pilot wouldn't do to help, in Vietnam, when another pilot's in trouble. Pretty soon, we had two gunships come over. These are people we know, and they're Rattler 1 and Rattler 2, and they know us. We were Phoenix one-three, that was my call sign. ... They're talking to me and these big gunships are coming down, making all kinds of noise. They say, "Phoenix one three we got your ass covered if anybody so much as;" well, of course, they're talking really tough, you know. They're talking Vietnam pilot speak, with bravado, lots of cuss words, but they were saying, "If anybody so much as just moves or shows up, they're going to see the fangs from Rattler;" you know, they're talking real tough and making lots of noise. ... The next thing you know, here comes two Hueys. The Hueys are up there circling, mostly for moral support. So, now, we've got about six or eight aircraft circling above trying to protect us, the unarmed, vulnerable little scout helicopter down there, just hovering all around, just trying to protect these two guys from anybody sneaking up on them. ... Then, here comes an Air Force Jolly Green [Sikorsky MH-53 Pave Low], and he comes, it comes in. ... We go off to the side as



this jungle penetrator comes down with two guys, all dressed in black, weapons slung all over their backs. They landed through the jungle in another spot, climb up through the trees, and, one at a time, put the [guys] on stretchers and pull them out. Well, we got our butts chewed out by the Major. All our pilots were all [listening] to the radio in operations. The major said "You guys were unarmed on a training flight with only a few hours in this aircraft ... crazy, stupid." After he chewed us out, he took us up to the officers' club and bought us a scotch. We drank scotch with him late into the night - he didn't approve of what we did but he was proud of us. Well, anyway, that was the first real scary experience I had and it was pretty frightening, but it was pretty moving to us to have other pilots come in to protect you when you're with a very unarmed little helicopter. I'll just tell you two more stories, but this other one I think is pretty vivid in my memory, too. ... One day on my town an LZ in the mountains, lost twenty-two men. I was given the mission to pick a colonel up and, take him to the LZ. It's his unit that's out there, an artillery battery, with two infantry platoons. I pick him up and he's a slender, little guy, and I hadn't flown with him before. He's accompanied by a sergeant major who was just the opposite size. He was a big, heavy guy, probably six-foot-two and probably weighed 250. This colonel probably weighed 150, and they're dressed for combat with a steel pot and M16 with only a sidearm. Sometimes, colonels flew with me. Both guys were dressed for combat. As I was coming in for a landing at the LZ, I'm doing that spiral approach, as I talked about, earlier. The hill stopped firing their 1-5 howitzers for us to land. We call this a "check fire." As I turned descending lower, machine-gun fire zipped by my right door, close, very close. Machine-gun fire was going out my right door, and so, I called in the radio, "Taking fire." I'm approximately at forty [knots]. Low and slow flaring, to land on a sandbag helicopter pad, I'm perhaps 200 feet in the air. ... I flared and a mortar lands right on the pad in front of me. They had zeroed in on the pad and they were trying to hit me with a mortar. ... It's like a large explosion right in front of my face, and I aborted the landing and zipped on up and climbed as fast as I could... and I tried to talk the Colonel out of landing. ... He said, "No, we have to land." The radio comes on and the two passengers I was to pick up --they were warrant officers, radar technicians-- that were standing by the pad, were killed by that mortar. The radio is buzzing, machine gunfire is exploding all around the firebase. I'm circling high above the hill and I talked on the intercom, trying to talk the Colonel out of landing. "I am the aircraft commander and have the final call, my men have been killed; they need me." He says, "We really need to land." So, I told him I wasn't going to land--I was just going to bounce on the pad. ... When I told him that, what does he do? He climbs out on the skids as we're spiraling down. He holds on to the helicopter's side. There's a little doorframe--he's hanging on the doorframe by his hands. The helicopter is at a steep, descending angle. The next surprise is the Sergeant Major, he does the same thing in the back. Now both my passengers are on the skid on the pad hanging, like they are John Wayne. Before we bounced off on the pad, they jumped off. I bounced and hit into the air climbing fiercely as machine-gun fire again streaked out my front door. I turned away from it and climbed. That was a very dangerous situation. Let's see, I was going to tell you about one more dangerous mission, it was my last mission. ... I was the operations officer with two weeks left on my tour. I assigned the missions to the people to fly. We had a new major. He had very little time in country and little time in the Loach. He obviously not comfortable in flying the Loach, so it seemed. It's getting dark and all our pilots are already in and drinking. They're up at the officers' club. Our policy was we fly at night with two pilots. That's our SOP [standard operating procedure]. It was so dangerous to fly at night in Vietnam. Well, it's nearly dark and we get a "TAC E" call, a tactical emergency, which means lives are in danger. Someone has to

go out and fly. ... One of our batteries was firing 105 inch guns, protecting the infantry. They were firing continuously and their FADAC computer went down. So, they needed a FADAC computer, ASAP. The FADAC is within a metal suitcase. We had to fly it out there. ... It's dark, and so, I told the Major that he was going to have to fly with me as copilot. ... He said, "No, someone has to man the radios." That was crap, our Ops sergeant could do that. He wouldn't do it. There's no one else to fly, so, the Ops sergeant flew with me. We took off. We're talking, flying, doing everything by the book. We are under radar coverage with our lights dimmed. We landed on the hill. They gave us a check fire so we could land. We landed to the headlights of a jeep. Soldiers took the new FADAC off and threw the old one in. A soldier jumped in the back who needed a ride back. We were under a check fire, told the hill we're taking off. We started corkscrewing off. ... As we took off, at maybe a hundred feet in the air, all six ... 105 howitzers went off. The flash blinded me. I was totally blinded. I pulled pitch to climb out of there. So, next thing, I'm unaware of is that I'm a thousand feet in the air and the helicopter is doing forty knots and it's over rolling on its side out of control. I had pulled into the red line, stressing the transmission too hard. I was getting a red blinker, master caution, warning light. I regained control, advising Salvation control and headed east. I flew back chewing everybody out. I'm chewing out Salvation, the controlling agency, out. The sergeant with me is chewing out the Firebase, yelling, "Are you trying to kill us?" Salvation was trying to calm us down saying soothing things like, "We have you on radar, clear back to Ky Hai heliport, sorry it was not our fault." All our pilots who were enjoying happy hour came to operations and were all ears. Everyone wanted to hear our story. We had these things regarding war stories in our unit. We called them "TINS." ... Since we flew with one pilot, ... ninety percent of the time, no one would experience our flying with us. The TINS were a pilot's way of, a single aircraft pilot's way of, telling another pilot what happened to him that day. ... We listened to the most interesting TINS at night, when we're having a drink right before dinner. TINS, ... what it stood for was, "This Is No Shit," but it was TINS that we told each other and it was TINS that helped us stay alive. So, I was in the box, so-to-speak, that night. I was the most senior pilot there, the one who was not supposed to be flying "milk runs" like taking "donut dollies," which are Red Cross girls, to the PX [post exchange] or picking up steaks for the Colonel or flying some colonel to the airport to tell the troops good-bye. Those were the kind of "milk runs" [safe missions]. We did these missions the last few weeks we're there. My last mission turned out to be one of my ... more dangerous missions. [I published an article about my last mission in the Americal Division Digest, a monthly magazine for members of the Americal Division Association.] Another bad thing happened the next day. When I was back in operations, I received a letter. I received the so-called "Dear John" letter. At that point, the Colonel and everybody came to my support. The flight surgeon grounded me saying, "Get him home. He can't fly here anymore," and then, because I was grounded, ... well, the Colonel asked the Lieutenant Colonel, he invited me up and to talk. ... He said, "How can we get him home?" and then, the Lieutenant Colonel said, "Well, if he's grounded, he can't fly. ... How could he be grounded?" and then, the flight surgeon--these are all people that had become real close to me, a good friend--he said, "Well, I just grounded him because, under this kind of emotional distress, he just can't fly anymore" and, because I was grounded, the Colonel said, "I want him to go home tomorrow," and so, they tried to arrange a flight for me that night. ... He wanted me to go back to the States tomorrow. The only way to get back to the States, I had to get to Tan Son Nhut in Cam Ranh Bay that night. Well, there were no C-130 flights that I could take. They were all booked up until the following day. So, meanwhile, everybody is trying to figure out

how to get me back. They had a Cobra pilot who heard, volunteered to fly me in a Cobra when he got in, and then, we had--oh, just everybody was trying to figure out a way to get me back that night. We had a fixed-wing pilot that was assigned to us. He flew an [de Havilland Canada DHC-3] Otter. It's a large, single-engine, fixed-wing. Our Otter pilot's coming in. He says, "Oh, I heard." He said, "I'll fly James back." So, he landed, after flying all day, and flew me to Tan Son Nhut that night--he let me fly actually. We took a warrant officer with us, who volunteered to go, so [that] the Otter pilot wouldn't fly at night with one pilot. As I mentioned, you needed two pilots. So, they flew me back that night ... and, the next morning, they had me booked on a flight back to the States. I got back to the States and, to make a long story short, I went up to New York. My wife had moved to New York with our daughter. I got to see my daughter, and then, while I was up there in New York with them for a couple of days finding out what's going on. There was another guy. She wanted a divorce. As I prepared to leave, I was hit with a subpoena formally asking for a divorce. So, I drove back to New Jersey and went to Fort Monmouth to talk to a JAG [Judge Advocate General] lawyer there. ... Right in front of me, he called the lawyer in New York and said, "I've got these papers you gave Captain James and you're asking for things you can't get such as garnishing his wages, and so forth. He's an officer in the United States Army--you can't do that," and he said, "You see these papers that you gave him?" He said, "Put your ear [to the phone]. Is your ear close to the phone?" He said, "I'm tearing them up right now," and he just tore them up and threw them in the trashcan, which made me feel pretty good. He advised me to take my time and get the divorce on my terms. I had a month off, but I was depressed. I just went back to Fort Wolters after two weeks, which is where I was next assigned. Two of the guys, Conner Dotson and Mark Birmingham, that I flew with, met me in Dallas at Love Field, which is about--oh, it was about a three-hour drive to Fort Wolters in Mineral Wells. They drove back to Mineral Wells, and their wives greeted me. I knew their wives. You became so close to the people you flew with and were there with 24-7, you knew everything about their lives. The camaraderie was like nothing I ever experienced. You knew their wives, sisters, parents, friends. You just knew everything about them. They felt like I knew them and they knew me. ... I stayed with Connor and his wife for a week before I found my own place to live. The Army sent me to IP school in the TH-55, nicknamed the "Mattel Messerschmitt," but instead of being an IP, an instructor pilot, in that aircraft, they put me on the Colonel's staff. They sent me to a school to teach me how to write staff studies and teach me about the latest educational techniques. I worked for the Colonel for four months before I left the Army. Interesting enough, [in] that four-month period, the Army Armor branch contacted me about becoming an astronaut in the Army. The Army was looking for a company grade officer with a master's degree in a science or math and was rotary-wing qualified. ... The Lunar Module lander was designed to fly like an H-13 helicopter, the helicopter I had trouble learning instruments in at Fort Rucker. They contacted me, because maybe there weren't a lot of candidates. The papers were being processed. Meanwhile, I was getting close to getting out of the Army and I didn't hear anything definite from them. ... I applied for a lot of companies and Exxon was Humble Oil at the time, but Exxon, Dresser, and Texaco offered me jobs. I went to work for Exxon in New Orleans and was there for three years working offshore as a geologist, and then, they transferred me to Midland, and then, was in the exploration department in Midland. ... Then, I was sent to Norway with Esso-Norway for a year. I came back to Midland. In Midland, I was recruited by a new company, Southland Royalty Company, a small independent company. I went to work for them as a senior geologist. A couple of months later during Christmas there was a Texas Tech coed, a sophomore, came in to work as a temp. I asked

her out for a date. I married that sweetheart when she graduated. We have been married thirty years. She went on to graduate school at Texas Tech to get her MBA.

SI: Congratulations.

ADJ: Thank you. She was the best thing that's ever happened to me, and so, then, at Southland Royalty Company, I became a district geologist and I supervised seven geologists, and then, Southland Royalty Company was taken over in a hostile takeover by Meridian, Meridian Oil. ... Meridian Oil kept me as their regional exploration manager, VP, in charge of the New Mexico and Texas region that they had, and I stayed with them for a couple of years. ... Then, the oil price went really low and times were getting real thin for everybody in the oil business. Meridian, which is now Burlington Oil, wanted me to go to Houston to work on [the] senior VP staff. ... I had a pretty nice golden parachute, so I pulled the rip cord, bailed out, and became an independent oil consultant. Now, becoming an independent at that time was difficult, because of the depression in the oil industry was in. I literally went eighteen months without making a dime as an independent, but, after eighteen months as an independent, I started money, gradually more money and ended up doing well as a consultant and as an independent geologist. ... I did that for seventeen years and consulted for lots of companies, large and small independents. I had to reinvent myself, because my skills were more in management. Early on as an independent, [to do] the things that were going to work, I had to become more of an engineer than a geologist. I started working and doing things primarily as a petroleum engineer. ... I do not have an engineering degree, but I had petroleum engineers hire me as a consultant to do petroleum engineering. I mean, I was not working [as an engineer], I did not have to have an engineering license, because I didn't need one. I was working for sophisticated oil people, doing evaluating what oil and gas properties and buying and selling them. I had a partner, we called ourselves "James and Underwood." We would flip oil properties and make a profit by doing that. So, that was what was working. That's the thing that I did for a while. ... Then, other things began working, when the oil and gas market, industry, became vibrant again--it's been a roller coaster ride in oil and gas. I worked as an independent, a consultant, for seventeen years. Last January 1, I went to work for my principal client. I had about four major clients, which over time dwindled to two clients. That one client wanted me first as a half-time three-quarter-time consultant and finally just said, "Why don't you come aboard as an employee?" ... So, as of the first of this year, I'm now an employed person again, after almost seventeen years as an independent. ... Doing that, I hired an intern during the summer, previous summer, and that turned out well and he now has one year experience as a geologist and he's doing well. We hired an experienced geophysicist. So, now, I've gone full circle and I've become a manager again. It's been a rewarding career and my Army experience and my Rutgers experience prepared me in lots of ways. I'm very close to about five of the guys I flew with in the Army. They're like brothers to me and they'd do anything for me and vice versa. Even though there were some dangerous times in Vietnam, they say it's like the ninety-ten rule--ninety percent of the time, it's sheer boredom, but that ten percent of the time, it's sheer terror. It's probably something like that. It's beautiful country to fly over. ... I kind of miss just the beauty of it, the beautiful things I saw in the mountains, the beautiful coastal plains and the beautiful blue water of the South China Sea out there, and the camaraderie, that was kind of [nice]. I mean, ... you saw lots of bad things, you know. Being in a small helicopter, I'll say this one thing, every helicopter pilot will ... take someone wounded in to the hospital. The Loach is not a good helicopter to take

somebody wounded. You can't lay down in it. ... You can slouch in it, but you can't lay down in it. It's not like a Huey with a large floor. One time I was on this artillery fire base and one of the soldiers, got tangled up in razor concertina wire, not typical barbed wire, it had razor blades edges in it. It was real nasty stuff. He was bleeding profusely from his chest and arm. They had him wrapped up and carried him to my helicopter. Someone came rushing over and asked if I could carry him out. ... I said, "Yes, but somebody's going to have to come in with him, hold him in there and strap him in, make sure he's okay He's bleeding," ... and wrapped up. So, I took off and headed straight for the hospital. It's the first time I landed at the hospital. I called out there and said what was happening, and it was like landing in [an airport]. They had a Flight controller in there. He cleared me to land. He cleared out aircraft all around me, and I came straight in to the hospital. They came running out with a gurney. ... They put him in a gurney and his buddy jumped out and they hustled him on in. Two nurses jumped up on both sides of my helicopter and talked to me. They were the most beautiful things. They probably were just average girls, but they jumped ... up alongside me and talked to me ... and I talked with them, just idling the aircraft. I would've turned it off if I could, but they wouldn't allow me to do that. I sat there idling until the controller said, "You've got to get off. We've got another aircraft coming in." It was a very nice experience. One fact about the Chu Lai Hospital nurses, two of the five females killed in Vietnam were two nurses killed in Chu Lai while I was there. We knew the nurses pretty well because our warrant officer's sister, Major Lincoln, was the head nurse. We were invited to see them every now and then, but two nurses killed were hit in a rocket attack. It was a direct hit on their mobile home near the hospital. Their names are on the Wall. ... As I said, even though it was safe where we lived, we were rocketed--and those rockets had a flat trajectory, not very accurate, but, still, they could get you. ... One time, I was trying to call home, because I was not getting mail. Mail had stopped the previous month before I got that "Dear John" letter. I was trying to call home on the MARS line, they called it, which is like a radio telephone. I was with two other guys and we had just finished--I couldn't get a hold of my wife, by the way--but, as we were out in the asphalt parking lot, a rocket hit very close, close enough to where the heat knocked all of us down onto the pavement and scraped up our knees and faces. ... We didn't fall down, we were knocked down by the heat blast. It landed real close, we had to hurry up back to [our area], because, when under attack like that, you had to get to certain places for defense. The rockets were harassment and they disturbed your sleep. We had a bunker to run to in the middle of the night. ... I have to tell you a couple of stories. One particular night after we had a lot of fun drinking, because It seemed that was about the only thing we had to do for fun. It was late at night and we came under rocket attack and I didn't feel like moving. I just rolled the whole bunk upside down on top of me as if that was going to protect me, you know, the bed sheets and mattress, in case a rocket hit. ... I caught a lot of heat from my buddies from that one the next day. We had this sign in our little clubhouse that said, we were called Div Arty Air, "Chu Lai's finest airline," and, underneath it, it said--and, now, you have to remember, this was 1969. ... It said, "The policy of our pilots is never to fly a mission twenty-four hours prior to having a drink," and it said, "The next mission our pilots can fly," was some date twenty years in the future. [laughter] It was funny. We had to make our fun. I did see Neil Armstrong walk on the Moon, because we had a little black-and-white TV, that got one channel, sometimes, and it did show him walking on the Moon. I remember looking up at the Moon when that was happening, in Vietnam, and then, seeing that little image, blurry image, on that little black-and-white screen TV. [Editor's Note: On July 20, 1969, Neil Armstrong became the first man to step onto the Moon's surface.]

SI: Your year in Vietnam was from September 1968 to September 1969.

ADJ: [Yes].

SI: Okay. At that point in the war, what did you think about the war in general?

ADJ: I thought it wasn't worth it, because of what I saw. We were just ... paying too big a price. The mission we had, literally, was to kill the enemy, and you don't win wars by killing the enemy. You win wars by killing their ability to fight, like supplies lines, keeping them [severed]. Wars are really won strategically that way. When you look back through history, they're won by keeping them [down], making them have a very difficult time to continue to fight, and we weren't doing that. ... What we were trying to do was kill the enemy. We were good at that, using tactics of maneuver with efficiency. The helicopter was our horse, cavalry tactics, it worked beautifully, but they kept replacing their casualties. We won every significant battle that was fought there, but that's not enough. We followed rules, they did not. I was over there during the height of the build-up, when we had the height of the casualties, and helicopter pilots paid a dear price. I had the statistics wrong in that article I submitted to you, but they were close. The VHPA [Vietnam Helicopter Pilots Association] later provided me the exact statistics, which I will get you, but they're basically something along this magnitude--thirty-nine thousand pilots were over there in Vietnam and approximately one-fourth of the casualties were officers that were killed-in-action and one-fourth of the officers were helicopter pilots. Quite a few helicopter pilots paid a dear price. My flight class had about forty something pilots, in it and looking back at it through the VHPA's records, about a fourth of them were killed. Another statistic was that half of the pilots, in the year you were there, ... half the pilots would crash or be shot down, and that was true in our unit, too. Half of our pilots crashed or were shot down, but only one was hurt badly enough to be sent back to the States. Units all around us had [casualties]. We were fortunate, but units all around us had people that we knew that were killed. It was probably the most memorable year of my life, definitely an important year of my life, and the friends I made and the camaraderie I made in the military and the things I learned. I mean, I remember many good things. The bad things well there weren't that many bad things. It was mostly good things.

PL: You had a designated bunker in case of enemy rocket or mortar attacks. In the interview I did with another Vietnam veteran, he said he just piled up sandbags in his hooch, so that it kind of made a mini bunker.

ADJ: Well, we had sandbags in our hooches, too, that provided some [cover], but what we had was a hill behind our hooches. That ... gave us some protection because of the low trajectory of the rockets. Being on the backside of a hill was good. The soldiers before us had dug into the hillside and placed a large piece of thin galvanized steel, the same stuff the roofs of our hooches were made of. This helped to hold the hillside up. It was a cave, a pretty formidable looking bunker. You couldn't even stand up in it, but you could kind of lean over and go in and sit. It was adjacent to our hooches. Everybody had different things for protection. This is what we had, and that was really good. About that hillside--one time, I came in late, at dusk. There was a whole line of aircraft landing at night one-by-one. It's like coming into Newark [Liberty Airport]. We're all lined up, landing. There was one American soldier who went crazy. He was

up on a hillside near our hooches with an M-16. ... I had just landed and hovered my aircraft into a revetment--these are big bunker-like sandbag things that you hovered into to protect the aircraft--and was shutting down, listening on the radio and heard aircraft say, "Taking fire, taking fire," and I'm looking. Back behind me sitting in the revetment and I see tracers reaching up. Later I learn there was some psycho soldier shooting at his own helicopters. He shot down three helicopters and put bullet holes in several others. The helicopters were slow, just a hundred feet in the air, landing one after another. Luckily, no one was killed. MPs [military police] finally cornered and got him. He just had gone crazy. ... I served on seven court-martials, because I was "handy meat," being in the division. I was a company grade officer needed for those panels. Of those seven court-martials, six of them were for dope, mostly marijuana, and one of them was for sleeping on guard duty. I had to serve on guard duty as the officer of the day several times patrolling the perimeter at night. On one of those nights we had a bad rocket attack. A rocket hit one of the bunkers while I was up in a tower at the perimeter. I heard the radio bark, "Condition Red." I saw yellow streaks heading toward us. One appeared to be heading to me at sixty feet off the ground in a tower I put on my steel pot and waited. It hit the bunker 30 feet to the left of me. These marines were in it. I thought they were killed. The bunker saved their lives. They were taken to the hospital but were okay. Those bunkers did a good job, [laughter] made me feel really good about all those sandbags that we saw everywhere trying to protect, you.

SI: You mentioned earlier that drugs became more prevalent when you were in Vietnam. Was it just that you noticed it more or did it become an actual operational problem?

ADJ: When I was there, and I was there during the height of the build-up, I can say this clearly, because I got involved in these court-martials and knew it was going on, but I never saw any of it. I did hear, later on, and I don't know if it's true, ... I'm just making the assumption it might be true, that one of our warrant officers, was doing this kind of thing. ... I was flabbergasted, because I never saw it or anything like that. I never saw it out in the field, although I heard it happened, but the problems we had on the court-martials I was involved with were people who were not in the field. They were the people who were back in the rear echelons. The "REMFs," we called them, and I can let you figure out what that stands for, were the people who were not directly involved in combat operations. They were that ninety percent that were in support of the ten percent that actually did the fighting. The people that were doing the fighting were usually the best people. It seemed they sent their best people to the front. The court-martials I was involved with involved people back in the rear, division area. One time, when I was on guard duty and I was officer of the day, I entered a bunker, manned by Marines that reeked with marijuana. I chewed them out and I just said, with the Sergeant of the Guard there present, I said, "I'm sure smelling it," but, you know, I read them the riot act, and said, "We will be back and this bunker better smell clean, be clean and sharp." Another time the sergeant and I entered a bunker under an alert condition where two of the three men had to be awake. One could be asleep. They were all asleep. We had made lots of noise entering the bunker. I used to wear my gray flight suit on guard duty, so my men could see me and mistakenly shoot me. ... I'd look different, and so, I climbed up the ladder to the bunker making lots of noise, with the Sergeant. They were asleep. We took all their weapons, and then went down to the jeep, put all their weapons in the jeep, and then, called to have them relieved, and the three of them were put up on charges. I was called as a witness to the courts martial. All I knew is, one person was allowed to be asleep ... under the type of watch that we had and ... two had to be awake. One could sleep

and two had to be awake. Other troubles I heard of had to do with race, I saw a little bit of that, and dope. These issues were in the rear echelons. They were not out in the field. Out in the field, they were like brothers. I mean, everybody treated everybody with respect. I mean, they were people that you counted on for your own life. I'm sure some problems with race happened, but I didn't see it, and I got to see a lot, because I flew all over I Corps as a pilot and landed in many places. On any typical day, I'd end in twelve different places at one time or another, with the engine off for a short time, talking to somebody or visiting somebody. That's where I learned to drink black coffee, in the States I would get it with cream and sugar. In Vietnam, sometimes I could get it with sugar--I could seldom get it with cream. So, I gave up, started drinking black coffee and I drink black coffee to this day. Well, I guess I've talked you guys off. [laughter]

SI: Did you have any interaction with the Vietnamese--not the military, but native Vietnamese?

ADJ: Yes, I sometimes carried Vietnamese civilians and even families with children. We broke some rules with that sometimes, too. Our Vietnamese hooch maid was like part of our family. I mean, she took care of our shoes and ... cleaned for us every day. We paid her a little money. We were supposed to pay her in Vietnamese money, but we paid her in military scrip--everybody did--and that was not [regulation]. That was against the rules. Occasionally, the military would exchange the money for a different colored money. Black marketing was a problem. That's the main reason we couldn't use of have American money while we were there. We could only have this military scrip. So, they had this situation every six months or so--I think it happened twice when I was over there--the Army would say, "Okay, we're not having this blue money anymore. Now, the funny money is going to be yellow," and all the new script came out and the old money was being replaced with yellow. You bought everything you needed with script, but it was theoretically worthless anywhere else. It was still worth something to the Vietnamese who also used it when dealing with Americans. We paid her [in scrip], because it was very awkward for us to use Vietnamese *piasters*. We would pay our hooch maid [in scrip] and they knew to use that money, or exchange it for US dollars or Vietnamese *piasters*. Well, the military money changed and she was in tears, because she had a little laundry business going and she lost a significant amount of money to her. Well, here's where we broke a rule to help her. John Duffy, the guy I flew with in that rescue story, was on R&R with his wife in Singapore. When you're on R&R in Singapore or when you're ... away from the country, that rule doesn't apply during a military scrip change over. We told Duffy what happened and how out hooch, Luan, had one or two hundred dollars of military scrip that she lost. She gave it to him and he changed it back into the new scrip for her. ... So, she didn't lose that money. We broke a rule here, but we trusted her. She was there everyday.

SI: Is there anything else that stands out about the culture of helicopter pilots? It seems like everybody had a mustache.

ADJ: Well, that was a thing over there, yes, because we weren't supposed to have them. The funniest guys over there were the Aussie pilots. They had beards. You weren't supposed to have mustaches or beards. You couldn't have a beard if you flew with oxygen, but we didn't fly above ten thousand feet, so, we didn't [wear masks], although we accused the Cobra air artillery guys of getting nose bleeds for flying so high, so [that] they wouldn't get shot at. ... They did fly higher than any of us, but we used to kid them about that. The mustache was just sort of a badge of



honor, because we were in Vietnam and we were pilots. We had a major that came in to take over our unit temporarily. He was an artillery major, wasn't a pilot. This red-haired major came in and he couldn't grow a mustache if he wanted to. He wasn't happy with our mustaches. Every pilot, it seemed, grew one or tried to. Now, my hooch mate, Lee Lefford he tried the hardest to grow a mustache, but he never could. He had blond hair, so we gave him an out. ... "Okay, all right, you don't have to grow it," because he looked silly trying with a few little hairs coming in. So, we gave him an out and he might be in ... that picture there, but I think he is.

SI: Is that him?

ADJ: No, he's not in the picture; he has a mustache.

SI: He does?

ADJ: This is one of the guys, Mark Birmingham, who met me ... when I came back from Vietnam at Love Field. ... This major comes in and he's redheaded, has a light complexion. He couldn't grow one, and he said, "As far as mustaches go, use me as an example." Well, I was the operations officer and acting leader because we didn't have a major aviator head of the unit. No one shaved off their mustache on the major's advice. No one even thought about it. They said, "What are you going to do, send me to Vietnam? I'm not shaving off this mustache." [laughter] So, no one shaved off their mustache, and then, ... after two weeks, the major never said another word and left after two weeks. We got, pilots got, the label as being mavericks, you know, in that artillery division. That artillery division had a lot of lieutenant colonels and a whole bunch of majors. ... We pilots just didn't fit in, because we were just kind of mavericks. ... Our job was flying. We did our job well. One of my friends, Conner Dotson, stayed in the military--he's the guy who came out as a colonel, ... and then, worked for Continental. We knew eventually we were getting out of the Army. The division artillery Colonel had the highest respect for us. I mean, he talked to us, the full-bird colonel, the big boss. He talked to us on a regular basis. We flew him on a regular basis.

SI: While you were overseas, did you hear any news about what was happening in the US in terms of the antiwar movement?

ADJ: Yes, oh, yes. We heard all the news on a regular basis. The antiwar movement was distressing. I was very distressed to hear about the ROTC building [at Rutgers] being burned down. ... That bothered me, made me mad. Why would they do something like that? but you asked about ... my personal thoughts about the war. I didn't think it was worth it, because I did see, even though we were winning these battles, ... we were still losing a lot of people. ... It didn't seem like we were doing what we came there to do and that was to keep the country intact, The US had the strategy called "Vietnamization." This meant allowing the South Vietnamese to take over which started on the latter part of my tour. We were slowly leaving and the enemy was just biding their time, until they just decided to wait until they left. [Editor's Note: President Richard M. Nixon introduced his policy of Vietnamization, turning the prosecution of the war over to the South Vietnamese, in 1969.]

SI: Was the news demoralizing to the men you were with or did they just not care that much about it?

ADJ: I think in the combat units that I was associated with, I don't think it was demoralizing at all. We did our jobs and wanted to get back home safely. We were damned good at being soldiers. I was twenty-three, patriotic, and thought we were doing a good job. Now, I don't think it was worth our country being there. We never lost a battle, but ended up losing the war of will. One of my close friends is a Medal of Honor winner, and we stay real close. If you saw the movie, *We Were Soldiers*, there were two helicopter pilots in that thing. His part was played by Greg Kinnear. [Editor's Note: *We Were Soldiers*, a 2002 film based on the 1992 book *We Were Soldiers Once...And Young* by Lieutenant General Harold G. Moore and reporter Joseph Galloway, depicted the Seventh Cavalry Regiment's actions during the Battle of Ia Drang in November 1965. Helicopter pilots Major Bruce Crandall and Captain Edward Freeman both earned the Medal of Honor for their actions during the battle, though they were awarded decades later, to Captain (later Major) Freeman in July 2001 and to Major (later Colonel) Crandall in February 2007.]

SI: Okay, yes.

ADJ: Major Crandall. ... Lynn and I were at the White House, when Bruce Crandall received the Medal of Honor. His wing guy, Ed Freeman, got the Medal of Honor first and ... he didn't get the Medal of Honor then because ... Bruce thought if they put up two people for the Medal of Honor, they wouldn't get it. So, he was put up for the second highest award and he got that, but, years later, they corrected that wrong. ... He received the Medal of Honor and same with Freeman received the Medal of Honor, and I'll just tell you two stories, because I know it's true. Freeman could have received the Medal of Honor with [President William] Clinton, but he didn't want it. He wanted to wait until [President George W.] Bush was in the White House. He waited until Bush gave it to him and Bush was in the White House when Crandall got the Medal of Honor. ... He invited my wife and I ... up there to see him get that. I belong to several groups, the VHPA, that I told you about, and Heli-Vets, which is helicopter aviators. It includes crew chiefs. Mostly, Heli-Vets, all they do is tell these TINS, these stories I'm telling you about, back and forth, but the VHPA is a large organization that's well organized. I also belong to Americal.

SI: Did you get involved right away in veterans' affairs?

ADJ: Not for the longest time. I was busy building my career and, I don't know, I just didn't think about it very much, but, as I got a little older, I thought more about it. ... Lynn and I thought we would go one time to the VHPA annual meeting. It was fun, we joined. That was about ten or fifteen years ago, just those three, and I belong to four or five professional organizations, too, involving geology, BHPA and the West Texas Geological Society and SIPES [Society of Independent Professional Earth Scientists], which is the Society of Petroleum Earth Scientists.

SI: What do you think have been the lasting effects of the war on you, both positive and negative?

ADJ: Well, ... unlike a lot of the guys, especially a lot of the enlisted men that I keep up with on these various nets [Internet-based social networks] that I belong to, ... many seem to have problems. ... I'll tell you, to be honest, and I'm saying this in all frankness, the friends that I've kept up with are people that I personally knew from Vietnam or knew from the Army and they've gone on to have normal lives. They are just normal people and had families. Some of the people that I talk to on the nets are the ones that seem to be having trouble. ... My daughter is a new doctor. ... When she was in med school, she had to do a tour with the Veterans Administration and she got to see quite a few veterans with PTSD. It certainly wasn't an issue that affected me or my personal friends. The positive things I took from the Army are many. I don't really dwell on those few times of terror that I had. It's funny, you were well-trained and did what you were trained for. When you had one of those terrifying moments and you get back, sit down and take your combat gear off, you know, and you're hanging up your stuff, you're reflecting on what happened, you're saying, "Wow, jeez." Sometimes, I was even shaking a little bit, you know, after, but, when it happened, ... you did what you were trained to do, and you were scared, but not [frozen]. I don't know; it was like you were doing what you had to do or what you're trained to do. Once you sit back, later, and think about what just happened, and wonder, that could have been me. It happens in a blur, you think about them later. ... You tell your friends these stories, back and forth, but you hear about so many of them, because you take your experience and the guys and because you're hearing about ... their experiences every day and learn from them. The stories we tell each other as I mentioned are called "TINS." Those TINS sessions and the officers club at night taught us things. There were things that I did, that we did well, that were dumb flying. Things that scared the living crap out of me, that could have killed me, things that I shouldn't have done, or I didn't have enough experience to do. You're real cocky, you're flying real well and here comes a big Chinook by, when your low in the landing pattern, and you turn out behind that Chinook. ... All of a sudden, you get in his down rotor wash and you, "Whom," you drop a hundred feet in a second. You're only two hundred feet in the air to begin with. You know, those are stupid things and I can talk for hours, about some of those stupid things that I did. You learned quickly from them. You learned quickly from what other people did. We had a warrant officer, Steve Lincoln, who was landing on a hill and ... he's carrying a net, a big net, that they needed and he had it up in the left seat and it got tangled in the pedals. So, as he's coming in this mountaintop to land, he pulls in a collective. When you pull in a collective, you have to put in left pedal to compensate or the aircraft yaws right. Every time you add power, you do this, and when you decrease power you add right pedal. The helicopter controls work together. You don't think about it because you're taught how to do all these things. So, he's pulling in power, trying to put in left pedal and he can't put in the left pedal. ... All of a sudden, the helicopter spins clockwise several times at thirty or forty feet above this airbase on a mountaintop and everybody's looking at him go by. We get a call ... wondering if we have Blue Angels [the US Navy's flight demonstration team] in our unit. Back at our operations post, Mark Birmingham takes a call saying that one of our pilots is doing aerobatics over his firebase. ... He wasn't even going to tell us about that one, because it was so dumb, and so, we're having people sitting around, telling us what interesting thing happened and what dangerous thing happened, and he wasn't going to tell us, embarrassed, but we all knew. ... So, all of a sudden, we looked at him and said, "Oh, Mr. Lincoln, what happened to you today?" and then, he knew that we knew and he had to tell us about his spinning across the mountain top, nearly killing himself. Now, the positive things I took away from the Vietnam experience is the camaraderie. You

make friends that you'll never make any [other] time in your life, when you're in combat for a year with them. You know everything about their lives. Everything about, like I mentioned, their wives; everything becomes transparent living together in combat. You have the same feeling of camaraderie, to a lesser extent, with every pilot flying over there. So, when you hear a mayday, every pilot's looking around, "Where is he? Where can I go? Can I help?" I was flying back with a major and, all of a sudden, I heard a mayday, and he wasn't listening. I didn't have him on the guard radio (emergency frequency). He was just listening on other frequencies, but ... a pilot listens also on guard radio all the time. You hear "Mayday." So, I put the helicopter in a steep bank, turning toward the areas where the Mayday occurred. "What's happening?" and I told him. I flipped his guard frequency on. He tried to talk me out of going over there toward the action. He wasn't talking me out of it. We were near and someone was in trouble. It was *my* helicopter, I was flying it. We went there, and tried to help. It was like that there if you were in trouble, if you were on the ground and if you were in some serious trouble, you know, that every aircraft, fixed-wing and helicopter alike up there, was going to try to help you if there was a way they could help you, regardless of the circumstances, regardless of how dangerous it was, regardless of anything. You never had that feeling that you were alone, in that respect, and I'm serious--you would do anything to help anybody in trouble especially a fellow pilot in trouble on the ground. We had F-4 [Phantom II] pilots that were rescued by Cobra pilots, having them get into the ammunition bay, landing, throwing out all their ammunition, sticking them in the ammunition bay and closing it up. There's another story of a rescued pilot sitting on top of a pylon, the pylons that they used to hold ordnance, just straddling that, while the Cobra pilot hovered him to a safe area. A helicopter that I flew all day in the mountains was turned over to a brand-new warrant officer, on his first "fly solo" in Vietnam. He took my helicopter and hovered it to the pad. He took it off over the South China Sea and the engine quit. He fell in the China Sea, and rolled it over in the water with pieces of the helicopter flying everywhere. A Cobra gunship was just hovering, idling, heard the report, took off from where it was on the tarmac and hovered over top of him in the water. He was able to grab hold of the skid, and the gunship pulled him to shore. The a Huey helicopter comes from our heliport, picks him up and takes him to the hospital. That all happened right in front of my eyes, in my helicopter, that I just flew in for ten hours. These are the stories we told each other, and those stories were the things that helped to broaden our experience, keep us alive.

SI: Very interesting. I know we have already kept you much longer than you thought.

ADJ: Way longer than I thought. [laughter] ...

SI: We appreciate all your time.

ADJ: Well, your questions and the way you were asking them, brought back memories I hadn't had or thought about in years and years. So, it was an experience for me, too.

SI: Is there anything you want to add? You can always add things to the transcript later, but are there any thoughts you want to add now or anything we skipped over?

ADJ: Let me think just a second, but, no, I think we covered it, but I guess my final note is, I think Rutgers and the Army just enriched my life more than you can imagine.

SI: That is a good note to end on.

ADJ: And that's why I'll always be a contributor, to the extent that I can, to Rutgers, ... especially the Geology Department.

SI: Thank you very much. We appreciate your time.

ADJ: It was my pleasure.

-----END OF INTERVIEW-----

Reviewed by Michael Hano 7/15/11

Reviewed by Shaun Illingworth 1/11/12