

MARY (TUT) HEDGEPEETH NASA ORAL HISTORY

INTERVIEWED BY REBECCA WRIGHT & SANDRA JOHNSON
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WRIGHT: Today is June 12, 2001. This interview with Mary (Tut) Hedgepeth is being conducted as part of the NASA Headquarters History Office “Herstory” Project. This interview is being conducted in Bakersfield, California, by Rebecca Wright and Sandra Johnson.

Good morning, and thank you so much for taking time to meet with us to discuss your experiences while you were employed with the NACA [National Advisory Committee for Aeronautics] Flight Research Center in California. We would like to begin today by gathering some brief background information about you. Would you tell us where you're from originally and how you got your start in your career?

HEDGEPEETH: I was actually born in North Carolina, but grew up in Eastern Tennessee, where I went to high school. And then I went on to college at the Woman's College at the University of North Carolina, where I got a degree in mathematics. My mother had also gone to that college and graduated in 1922, and then it was called the North Carolina College for Women. It is now called the University of North Carolina at Greensboro and it is coed now.

At the time that I graduated, I was offered a position with [NACA] as a computer at Langley Field, [Hampton,] Virginia [NACA Langley Aeronautical Laboratory / (1958) NASA Langley Research Center]. My salary for that year was \$2,300 for the whole year, and my children are amazed at that, but it was a good job at that time. My father even told me that he had never made that much money in any time in his life, so it was not bad and it was interesting.

Just lately, our son made a big display for over his mantle, one part of me at about my college age and the other part of my husband when he was in the service at about the same age,

and pointed out to me that one of the Wright Brothers was on the Board of Directors at NASA [NACA] at that time. I had not even remembered that, and it made me feel pretty old.

WRIGHT: Well, or pretty special, I guess, to be part of that time.

HEDGEPEETH: When I went to Langley to work, I was first assigned to the 19-foot tunnel. I was in a kind of computer pool and that was the first place I happened to be assigned. Didn't stay there very long before being transferred to Flight Research Division, and stayed there the rest of the time I was at Langley. I worked there with a college friend, Lillian Boney. Actually, she was my roommate in an apartment there, too. And with a girl named Barbara Weigel. I lost track of her after I went to Flight Research and hadn't seen her since those very first days, but at the ninth [NACA] reunion in Lancaster this last year, she was there, so we got to see each other. I have a picture of her with me. This is another friend of hers [Alberta M. Smith], but this is Barbara, and this is me, at that reunion, in front of the [NASA Research] Center there [Edwards Air Force Base].

At Flight Research, I had an interesting job. I liked that a lot and worked with some really good people. One was Mel [Melvin N.] Gough. He was the head of the division and was an old flight test pioneer, just a real wonderful person, used to make airplanes and fly them around in his office. We had fun with that.

I also worked with an aeronautical engineer there named Chris [Christopher C.] Kraft [Jr.], and you probably do know about Chris, who went on to become the Cape Canaveral mission control officer—I think I've got that right—and director of the Johnson Space Center. Interestingly, he grew up in the same little town in Virginia where my husband grew up and they were about the same age, so they knew each other as children. It was fun working with Chris.

I also worked with an aeronautical engineer there named Jim McKay, and he was the twin brother of Jack [John B.] McKay, who was a NASA test pilot and happened to have gone to the place here at Edwards [Air Force Base] before Jim. Later Jim went out there, too. But when I started to go to California, Jim told me, "You might run into my brother out there. He's out at Edwards." Or it was [NACA] Muroc [Flight Test Unit] at that time? I went in to work that first morning and this person walked in, and I thought that Jim had fooled me. They were identical twins and I just about said, "Why did you tell me your brother—" but they really were twin brothers.

About all I can remember of those days at Langley was that I just assisted the flight test engineers in calculations that they'd give me to do and I'd give the results back to them. I do remember that jet aircrafts were just starting to be tested there and I really wanted to see one, but they went so fast that I'd hear a jet aircraft go over, it seemed, and I'd run to the window to try to see it, but it took me several attempts before I was able to actually see one because they went so fast.

WRIGHT: Were you among other women that were there or were you one of the few women that were working there at Langley at that time?

HEDGEPEETH: There were a few others that were working there, yes. I can't remember any of them that worked at Flight Research. I pretty much was in the office with the engineers, just helping them get their numbers together.

Well, in 1947, my husband and I got married. He was an Air Force sergeant at that time. He got out of service just a little later. He had worked for [NACA] before the war, before he was in the service anyhow, as an apprentice electrician, but he, during the service, was trained as a photographer and lab technician. So he wanted to get into that kind of work, and it

happened that they were just building this little small group out here at Muroc then, Muroc Air Force Base. I guess it wasn't an Air Force base then; it was an Army base.

They offered him the job of setting up a photo lab here because they did not have any photographers or photo lab, and they said, of course, I could transfer, too, out here. Johnny had been at Muroc during the war for training missions, so he kind of knew where it was, and alleviated a little of my fears because people kept telling me, "Now, when you go out there, you have to, at night, pound a stick in the ground and hang your shoes over them so the rattlesnakes and things won't get into your shoes." It was not that bad, but close. [Laughter] I didn't have to pound a stick to hang my shoes on.

WRIGHT: What was your first impression when you saw it?

HEDGEPEETH: Well, I pretty much knew, since he had been here a couple of years before on maneuvers, and so we sort of knew what to expect, but it was interesting. [NACA] had arranged for the people who came out to live in some old Navy housing built for World War II when some Navy pilots were at Mojave [California] for training, and they weren't there anymore at this time, so the places were available and they were mostly built four in a unit, real small places.

But when we got there, the man that showed us our place said, "Now, you're really lucky because we just cleaned this place. Somebody just moved out, so it's clean for you." It had just minimal furniture. It had a bed and a table, but we could bring some stuff in ourselves. So we walked in and the dust was nearly that thick on everything, the tables. And after the man left, we said, "Oh, he's not telling us the truth." This place obviously hadn't been lived in for months, but we found out that that was really true. No matter how recently you cleaned the place, it had dust all over because it had so much wind and sand around, no real grass or anything like that. And even though the windows were built not to open, they were exactly

sealed windows, the sand just blew through there anyhow and would be standing on all pieces of furniture. There was nothing we could do about that. It still blows a lot in Mojave, though Mojave has grown some since that time.

Well, in November, anyhow, in 1948, November, shortly after Chuck [Charles E.] Yeager had broken mach one [sound barrier], we'd arrived at the [NACA] facility out there. Do you know the meaning of Muroc? It was named for some people that used to be old ranchers on the property out there. Their last name was Corum [Clifford, Effie, Ralph]. They tried to get a post office named Corum, but somewhere somebody had already used that, so they just turned the name backwards, spelled it backwards, and named it Muroc. That's how it got that name.

Well, later, I was going to say that the base was renamed Edwards Air Force Base, after Captain Glen Edwards, who was killed in a crash with the flying wing here. This is a picture of him, that the base was named for. But of course at the time we went there it was Muroc. I worked there, now, with a small group of women, headed by Roxanah [B.] Yancey. I don't know if you've heard her name. She died a few years ago, but was the head of our group, and was very particular about how we did data. Everything had to be done by one person and checked by another, so everything we did was double-checked, and probably third-checked by her, I'm not sure.

I can name just a couple of the people I remember working with then. Mary [V.] Little [Kuhl], who still lives around Lancaster, was one I thought you might be going to talk to.

WRIGHT: I did talk to her, and she declined.

HEDGEPEETH: Oh, did she?

WRIGHT: Yes, she said her health was not good right now and so she wanted to not do it. So hopefully in the future we can connect and visit with her.

HEDGEPEETH: I saw her the last time at the reunion last year. We don't get to Lancaster really often.

And there our duties were—I can name just a few of the things we did. We measured data that came from onboard recorders. They were in the cockpit or wired into the airplanes, and recorded it on special forms and then the calculations were done after that, and then the numbers put on those forms also. Of course, we didn't have computers in those days. We certainly didn't have little handheld calculators like we do today.

We used, at that time, sometimes a slide rule, but mostly big desk computers that were built by Friden and Marchant. They looked about the size of a cash register that you see, and couldn't do what our little ones today can, that you can hold in your hand, of course. And then we plotted data for the engineers and assisted them in analyzing the data.

Actually, our job was called computer and that's exactly what we did, of course very slowly, not like they turn out today. So when I retired from the Air Force, one of my favorite engineers over there, they had a dinner for me and he spoke at it and he said, "Tut, we remember, back in the old days, when we engineers would go up in the airplanes, we'd write numbers down on our little lap thing there, you know, with a pencil, and come back down. We'd give you some of the data to do and you'd do the calculations and hand it back to us, and probably that afternoon we'd have results from our test flight."

He said, "Things have changed a lot. We've got tapes on the aircraft to record the data, and we've got computers to process it, and now we get the data done in about two or three weeks." [Laughter] Of course, we got a lot more data done in two or three weeks than we got in that one day. It was fun working in those days because it was really informal and we worked closely with the engineers, and it was an interesting place to work.

Some of the aircraft that we worked on, that I helped process the data on, anyhow, were several X-1 aircraft, X-2, X-3, X-4, and I wrote some of those down for you that we processed data.

The single [NACA] women that worked in our group lived in dorms on the south base, and these were converted Army barracks. My husband and I lived, as I told you, in World War II Navy housing near Mojave. In addition to the sand, we had a lot of desert creatures that were prominent around the area, like rattlesnakes and scorpions, and sometimes these things drifted into your living quarters. I never saw a rattlesnake in our house, but I did remove a scorpion or two that were crawling around in there. We saw horned toads. It was real easy to see animals on the road that had been hit by cars because they weren't used to that many cars, and the snakes were always out there.

My husband had mentioned, even before we started, about our first dinner, our first going out to dinner anyhow, that we came to Bakersfield, not knowing that we'd, of course, live here later on. But we had a nice dinner and one that we could afford, less than a dollar at the Chinese restaurant here, The Rice Bowl, which is still going.

After living in Mojave about two years, we moved to Lancaster, but again into World War II housing. There just was no building going on in this area at that time. These housing units that we had there were built to house British pilots who were being trained in a little airfield outside of Lancaster, [War Eagle Field] Polaris [Flight Academy] Field. Now, when we actually started getting houses the first time in Lancaster, FHA [Federal Housing Authority] housing, a contractor came out to [NACA] and brought plans and they gave him an office to use there and he offered houses to be built in Lancaster, so the first housing group in Lancaster was mostly inhabited by [NACA] people because they actually came out there, and we signed up for the third house, which cost \$8,700.

I was very insecure, since we had two little boys, and I was really worried. Our payments were about \$60 a month, maybe, that included everything, and I was worried that one

of us might lose our job and we might not be able to pay for this. But of course we did pay for the house and sold it many years later for about ten times what we paid for it. It was a good investment.

When we lived in Mojave and Lancaster, we had about twenty-five miles from Mojave and thirty-five from Lancaster, to go to Edwards. Of course, over the desert, going from the Mojave Desert there, we saw mirages in the summertime, you know, with water out there, apparently there.

In the old days, there was a leftover mock Japanese battleship that was out on the lake. It had been left over from some of the war training missions there, and that was really interesting to see. As we would come upon that thing, apparent water under it, it looked like it was really a battleship sitting there.

Also there were train tracks at that time across the desert, and when we happened upon a train coming along, you could see the real train, but in the mirage water, you could see also a reflection of the train upside down. It was interesting. It looked so real, as if it really was going over the water and you could see the reflection there.

A couple of funny things that we remember from that time. We carpoled mostly with other [NACA] people from Mojave and Lancaster, and we had one interesting engineer that really thought things out and when, along the way, a car was not headed toward him, he just moved over and drove on the wrong side of the road because he felt that his tires would wear more evenly if he went over and part of the time drove on this side and a little bit on the other side. We used to think that was funny, but he did that with a reason. He was trying to save his tires.

We also were in a carpool one time with [A.] Scott Crossfield. Do you know Scott? He lived in one of the same houses that we did in Lancaster and he was an excellent pilot, but he did better with airplanes than he did with cars. We now and then would run out of gas in his car on the way to work. He forgot to fill up the gas and we'd have to send for gas to help us out.

One sort of interesting thing. On the lake beds that were used for emergency landings, it was important, and still is, that these lake beds be dry, because if they're wet, we'd have to stop flying until they dry off because they can't be used when they're wet. But that's important to the lake bed, to have it wet, then the wind blows and it makes the surface of the lake beds hard, just like clay.

Some of the interesting things that happened there, besides the mirages that we saw, is that when they were wet, one real interesting thing that happened was that shrimp that would lie dormant in the dry season, from this really hard lake bed, when it got wet, would come out of hibernation, or whatever you might call it, and would be there, and birds, seagulls and things, would somehow sense that and fly over there. We'd have all kinds of birds down there, picking those little shrimp up. They were just little. Not edible, I'm sure, but just little shrimp-looking things. And the birds would not be there except when the lake bed got wet and was starting to dry out, then they'd come up through the mud.

We even had snow. There's one picture—my husband took most of the old pictures there because he was the only photographer and processor there, so most of the ones that you might see—you may have a copy of this. And one that has me in it is the snow picture right here.

WRIGHT: That was a rarity, to have it snow that much?

HEDGEPEETH: We don't get a lot of snow, but maybe once or twice a year, some that sticks, and occasionally a really big snow. But generally not. We don't have snow.

At that time, the [NACA] facility was in a Quonset hut-like hangar. The airplanes were there, too, and then on the sides of the hangar were offices and labs and things like that. All the office cooling was done with what we called swamp coolers. We didn't, of course, have air-

conditioning in those days. These were evaporative coolers that do a pretty good job in the desert of cooling things down.

Because it was so hot in the summer there, early morning cooler times were better for flights to be done. In the summer we mostly worked from about 5 a.m. to one o'clock in the afternoon so we could get there early. So we got up early and got to work about five o'clock and the flights could get off while it was still reasonably cool.

We didn't have a lot of medical facilities around in those days, and both of our two sons were born in San Fernando. That was the closest real equipped hospital anywhere around, so we went there.

The early [NACA] group was pretty sociable. We had a lot of parties. One of the outstanding places was the Dude Ranch at Quartz Hill that we had parties, and then some, but not all people, would admit to going to [Florence] Pancho Barnes' place. We had a beer garden in Lancaster that was fun to go to after work, that was just really informal and actually had trees and horseshoes that you could throw and things like that.

Now, that is about my story on my work at Langley and at Muroc or Edwards, because about that time—do you want me to go ahead with—

WRIGHT: Whatever you feel comfortable doing. If you want to go on through and then we can come back and touch on some questions.

HEDGEPEETH: In 1953, I was offered a job, a supervisor job, by the Air Force. The head of the engineering group there offered me the job and I accepted it, but because of, I believe, the projects I was working on at [NACA], they wouldn't release me. In the meantime, I became pregnant with our second son and it was about three weeks before he was going to be born that [NACA] released me to go on to the Air Force.

So I went over and talked to the head of the engineering group who hired me and I said, "Would you like me to just come over here after my baby is born?"

He said, "Well, no, it doesn't make a bit of difference to me. You can do the work. It doesn't matter to me if you're pregnant." So I took a new job about three weeks before my baby was born.

At that time, you had to go to the Air Force hospital for a physical before you actually started work, and I had a lot of fun up there. A lot of people would see me getting a physical and they would say, "Are you leaving your job here or something?" I'd say, "No, I'm just starting a new one." [Laughter]

The person who hired me there was Paul [F.] Bickle. I don't know if you've ever heard of him. He was really outstanding, mainly in glider work. He held a lot of records for that. He was really ahead of his time on women's rights. I appreciated him. I worked until a week before my baby was born and I came back to work about two weeks later. He was just the greatest supervisor and just didn't pay a bit of attention or worry about having a pregnant person working in there. I was really well. I never had any problems, so I could do the work and he was satisfied with that.

I worked with that group for a while, actually doing almost the same thing I was doing at [NACA], except I was supervising a group of people. Then real computers came along, so I wanted to get into that rather than keep on with what I was doing, and I requested a transfer to their setup for their real computer programmer group, and worked there. Of course, our first computer about filled up our whole living room here with stuff and didn't do much, even at that. But that was fun to get into something a little different.

Then later I became a supervisor of the programming group, and before I retired from the Air Force was moved a little out of that field into project management and I supervised a group of people that were doing that, and didn't have my hands on a computer much anymore after that point. It was kind of interesting that most of the groups that I supervised, most of

them [were] men. We had a few women, but most, still, were men, and I had a lot of funny experiences with people being sure I was the secretary of the group. I was with one of my mathematicians one time, and somebody asked him, "Does she work for you?" He said, "No, I work for her." [Laughter]

I don't recall having much trouble with any of the men. In fact, one of them said to me, "Well, I never think of you as a [woman]." I said, "Well, thanks." I thought that was a compliment.

I retired from the Air Force in 1979 and had worked with a lot of General Dynamics [GD] people and managers that came from Fort Worth [Texas] out here. After I'd been retired for about a year and a half or so, one of them called and asked if I would be interested in coming out of retirement to be a data engineer for one of their projects they were coming to Edwards to test.

I was busy being retired, but I had signed up for too many things. It sounded like a good deal to me to get back to work and kind of get out of all the volunteer things I'd been in, and start over next time a little smarter. So I did. He said, "We'll just be out there for a year, testing this one aircraft, the AFTI [Advanced Fighter Technology Integration] F-16." I think I have a little folder here. I've got one somewhere that I can show you on that program.

But it was really interesting, and at first I was the only person at Edwards on that program. They hadn't brought the airplane yet or any of the people out, you know, so they had me go out there and just attend meetings for the group. I enjoyed that, and then I'd report what happened at the meetings back to the Fort Worth people, before the airplane came out. But this project that meant to be a year stretched out to twelve years, so I worked twelve more years for General Dynamics and at that time I was seventy years old and CSC [Computer Sciences Corporation] had, in the meantime, bought the Fort Worth Data Division, so I was actually working for CSC toward the end of that time.

So I retired from two different companies on the same job, without moving. It was fun. I worked right with the pilots and the engineers, as opposed to what I'd been doing for the Air Force for so many years in an office, without actually seeing or touching an airplane. Our AFTI F-16 was right there. One of our fellows said he just went out and patted it on the side every day. I felt like that, too. But I enjoyed that work.

Actually, the defense cutback caused General Dynamics to have to cut back on their active testing, and they told me if I would come to Fort Worth, I could have a job there, but at seventy, and we were thinking about building a house and everything, so I went ahead and retired.

But [in] my work with the government, with both [NACA] and the Air Force, of course, I was paying into government retirement and not getting any Social Security benefits. We hadn't thought about how important that was, but after I went to work for GD I was paying into Social Security, had a little bit of time in college and that kind of thing, but not much. Somebody said to me one day, "Well, you know, if you work long enough, you'll be able to get Social Security from this work."

I said, "I'm not going to work that long. It's just going to be a year or two." But after twelve years, I discovered I did have enough time, so that made me eligible, and I was glad I did that twelve years of work for GD, not only enjoyed it, but I got a lot of benefits.

Then we went to a Social Security meeting one time. My husband had retired before me, so I was the only one working in the family at that time. They had a big spread on women being able to get Social Security as a result of their husband's work, and we said, "Well, that ought to work for us, too." So we filled out the paperwork and I sent it in, and the local Social Security people—this was a long time ago now, and they were even further behind in their thinking—turned it down and said, "No. Women can get it on their husband's [earnings], but men can't [on their wife's earnings]." We had to do a lot of correspondence with the Social

Security people, but they finally reversed that decision, and so we both get Social Security, plus, more importantly, Medicare, as a result of my doing that additional work.

Since I've retired, Lockheed has bought out at least the Retirement Division of General Dynamics, the Data Division of General Dynamics, and so I get a retirement check from Lockheed, even though I've never worked for them. That's kind of interesting. What I would have got from GD, I now get from Lockheed.

You had asked me to come up with any funny experiences I had and everything, and one that I remember clearly is that every now and then, back in those days, people whose husbands were a little backward—mine wasn't, he was glad I worked—but a lot of husbands didn't want their wives to work, and a lot of wives looked down upon the women that did work a little bit and they'd sometimes ask, "Doesn't your husband mind if you work?"

I was always a little at a loss on what to say, but one of the girls who worked with me said, "I'll tell you what I say when they ask me that. I tell them, 'Well, he would kill me if I tried to stop.'" You know, say it seriously, and, sure enough, if you say that, they never ask another thing.

Another funny thing that happened in Mojave. Back in those early days, when we first came out here, the housing was not very good and there were a lot of animals around and plenty of sand. A lot of people came out from Langley that we had even known there and they just didn't stay. It wasn't worth it to them. As interesting as the work was, they wanted to go back to Langley, where it's a little prettier and all that.

But the shortest-staying group came and moved into a house very close to us, in the same housing that we were living in, and the wife was really unhappy when she first got there. She knew right away she didn't want to stay, but the man was hopeful that it would work out. So he got in a carpool, went out the first day for the people to pick him up, and he was just leaning on a pole out in front of the house by the street. His carpool came along and the driver stuck his head out, "I wouldn't stand there if I were you." He looked down and there was a little

Mojave green sidewinder rattlesnake just right by his foot. He, of course, got out of the way as fast as he could and he told them to go on to work, and this family actually left that afternoon to go back to Virginia. They did not stay another night. They'd stayed one night. They went back.

We had people do that, but most people kind of liked it. It was an interesting place, real interesting to work, and everybody else had the same living conditions, so we weren't alone. The group was friendly and active and people got a lot done by however they could in those days. We didn't have all the paperwork that they have today.

This is just a personal thing and you may not care about this, but our son Ted was three years old when we moved [from] Mojave [to] Lancaster, so I took him on Sunday to church to the little children's class, and he was a real outgoing little child, and the teacher said, "Do any of you have something that you want to share, something you've done this week that you can share with the children?"

Ted immediately got up, went to the front of the class, and he said, "I went to Edwards Air Force Base last week." Well, he had not gone, but he could have, so I thought, well. And he said, "I got a ride in one of the airplanes." Well, of course, that was not so. He couldn't have possibly done that, and I was a little bit afraid that maybe somebody would think that somehow he had, you know, we'd pulled some strings or something. I was getting a little bit worried about that, but when he finished up, he told the little children, "I rode in the caboose," so I knew nobody was going to believe that story.

The other story I wanted to tell is about Harriet [J. DeVries Stephenson] Smith. Do you know Harriet?

WRIGHT: We've read about her.

HEDGEPEETH: Well, after I went to work for GD on the AFTI program, our offices were down in the NASA area, because it was a joint testing by General Dynamics and the Air Force and

NASA. I was walking through to the control room or something one day right after I got down there, and I heard somebody say, "Tut?" and I turned around and there was this girl standing there and she said, "You're Tut Hedgepeth, aren't you?"

I said, "Yes."

She said, "Well, I'm Harriet Smith. I worked as a summer aide with you when you were at [NACA]." This would have been in 1952. She said, "When I came back the next year as a summer aide, you had left and gone to the Air Force."

I said, "How in the world do you remember me from that long?" That was a long time. Must have been thirty or forty years, you know. I was really pleased and flattered, too, that she remembered me. I talked to Harriet for a while and then went back to my office and said to a couple of engineers sitting around there, "You're not going to believe this. This person remembered me from that long ago and remembered that I was there the first year and was not there the second year she came."

One fellow said to me, "Boy, you must have been really mean to her, for her to remember you that long." [Laughter] I told Harriet about that later. She said, no, I wasn't mean to her.

But she had an interesting—I think she's still working here, but I haven't seen her since the reunion. I saw her then. But she worked for NASA in Washington and had a real interesting career. I sort of like to think that maybe in addition to her remembering me, I might have taught her something that made her go that far.

WRIGHT: You probably did. Listening to your, if I can use the term "career path," it certainly took some interesting turns, even from the first days when you were a mathematician. Did you have a particular interest in math as you were going through grade school?

HEDGEPEETH: Yes, I did. I always loved math, and I had a really outstanding teacher in high school that made me even more interested. My father also was interested in math. My mother was an English teacher and both of my sisters were English teachers, but my father, who didn't go to college, was always pushing me a little bit toward math and he had more interest in that, and I did, too, than in English. I liked English grammar, but I didn't care for the literature part that went along with it.

WRIGHT: That must have been a good combination, because grammar is so structured and math is so structured. Did that help you as you went through, trying to explain your data to people?

HEDGEPEETH: I imagine that it did. I can't really think of a way it did, but I should think that a structured-type thing would help.

WRIGHT: During those years at Langley, and I know you've mentioned that it was such a long time ago, but that was quite a bustling place back in those first years, and you might have been able to make a career there, but you met your husband. You didn't go into details of how you two met. Would you like to share with us?

HEDGEPEETH: This was right after the war years and we met at the USO [United Service Organizations] at Fort Monroe [Army Base]. That's right outside of Langley.

MR. HEDGEPEETH: At the YMCA [Young Men's Christian Association].

HEDGEPEETH: The YMCA. Okay, yes, that's what it was. I had gone there with some of my girlfriends to a dance and some of the military people were there and I met him there.

WRIGHT: And this, of course, was a still young age, wasn't it, because you hadn't been out of college very long.

HEDGEPEETH: I was just out of college, twenty-two.

WRIGHT: That's still young. [Laughter]

HEDGEPEETH: It seems like it now.

WRIGHT: And then to pack up and leave that area and to come so far away, did you see it as a sense of adventure?

HEDGEPEETH: Yes. Well, Johnny [Hedgepeth] says sometimes that we kind of thought that we would get a free trip to California and maybe later on go into some other kind of work. And we could have, many times over the years, got more money, but we really enjoyed our job and we thought, you know, we didn't want to leave it after we got here.

We were glad that we didn't, because we both get good retirement checks now, and we know some people who did leave the government service and go to work for one of the contractors, and, boy, that's iffy, at least it was back in those days. If a contract went, you got a lot of money, but if it closed down, you were without a job. And unfortunately, many of the ones closed down at the same time. I saw that when I was working for General Dynamics, because GD cut back quite a bit and I was lucky that my part of the work with them was not cut back, but we saw a lot of people, some families that both the husband and wife worked for GD and they were let off. So a lot of people lost houses in Lancaster that thought they were going to be there for a long time. We were glad that we didn't change.

Yes, it was an adventure for us, though. We've been married a long time, fifty-three years now, but the maddest I think that I've ever seen my husband was—we had an old, it was a secondhand Ford that we bought when we started to come to California, and we packed everything we could possibly pack in that car, and he worked hard at getting it in exactly right, and when we got to the border out here at California, they made us take everything out of that car, and he was really upset about that.

MR. HEDGEPEETH: It was about 110 degrees.

HEDGEPEETH: I don't think they do that anymore. They did way back in those days. But now we've been through that same checkpoint many times and they'll just say, "Go ahead." We wish that had happened at that time.

WRIGHT: I imagine some of those first days were so hard out here, newly married and basically you're coming to a new place. The Research Center wasn't really even developed, of course, as it was going to be. Were the days long and the expectations high with part of your work? Can you give us some examples or maybe tell us about some of those first projects that you worked on that took so much of your time and energy when you first arrived?

HEDGEPEETH: Well, I wish I could, but actually, the job that I had was pretty much a desk job. It was a lot of data and I worked with some interesting engineers on it, but now, looking back, seems like I did the same thing on all of them. We had engineers who actually analyzed the data and wrote reports and we helped them, and I've edited some reports that were written.

But I really enjoyed the work. It was fun and everybody worked together well. I don't remember being frustrated or disappointed in any way. A lot of people don't like this part of California because it is hot, but I basically have been happy everywhere I've lived. I just adjust

to whatever is there, so I don't remember ever being really upset or disappointed with the conditions. It was just interesting.

WRIGHT: Was there a project that you found that challenged you more, even in your Air Force days when you were moved over in the supervisory area?

HEDGEPEETH: Well, actually, the project that I felt the closest to was the AFTI F-16, the GD part of it. I really enjoyed that and had a lot of responsibility of my own, and I enjoyed that more than just data-handling.

MR. HEDGEPEETH: Can I mention something?

WRIGHT: Sure.

MR. HEDGEPEETH: I just want to say one thing she hasn't mentioned, was she also, while she was on the AFTI program, got pretty heavily involved in SR-71 work, too. I think she forgot to write that down.

HEDGEPEETH: I [worked on SR-71 while employed with the Air Force, not General Dynamics]. That was the AFTI program.

WRIGHT: Would you like to talk to us about this while we're on that subject?

HEDGEPEETH: I can't, really. I would like to.

WRIGHT: That's one of my questions I was going to ask, is that I have to think that some of the projects you worked on are classified, and are they still?

HEDGEPEETH: Well, probably not. I remember more the people that I worked with, you know, than I do in details. That's why I told my husband when you sent some of the information and some of these people had talked about big responsibilities they've had and what they've done and I said, "I'm not going to be able to tell that kind of thing." I didn't have that kind of—you know, I didn't go to the Moon and that, but I worked closely with Tom [Thomas P.] Stafford and he went.

One of the biggest thrills in my dad's life, I think, Tom was the director at the Air Force here for a while after his trip to the Moon and all that. I called him when my dad came out to visit and I asked him if I could bring my dad up to headquarters and meet him. He said, "Sure," so we went up there and my dad was just absolutely thrilled to shake the hand of somebody that had done that kind of thing.

WRIGHT: And he's still so involved in the NASA arena as well.

HEDGEPEETH: He was just a lieutenant when I first knew him at the Air Force, you know, worked on the SR-71. He worked on that—worked with him on that. It's like a history of things we've seen around here to go to the Air Force Museum and take a look at all the airplanes that we've been associated with.

WRIGHT: It's such an impact that you've made on so many of those planes, and like you mentioned, too, about the people that you worked with. When you were talking about having your children, and you continued to work, was there a childcare facility, or how did you arrange for that?

HEDGEPEETH: We were really lucky. There was not a childcare facility, and when Ted, our oldest son, was born, I didn't know what I was going to do, and I wanted to work. An older lady was living two houses down. She was living with her daughter and son-in-law, and they didn't have any children and her grandchildren were all back in the East. So one day she asked me, before Ted was born, "Are you going to go back to work?" I said yes, and she said, "What are you going to do about the baby?"

I said, "Well, I'm just going to have to try to find somebody." I wanted somebody to stay at our house with him.

She said, "I would like to do that." So she came to work for us when Ted was born, and Lee, our second son, was four years younger, and stayed with us until Lee was about three, when she had a little heart problem and had to stop.

So we had a few babysitters after that at our house, but she was the main one and was just a real good influence on both of our boys. She wanted them to call her "Grandma," but Ted just called her "Ma" when he first got started, so we all called her Ma after that.

After she had to quit keeping him, if we did something that Ted didn't think was just right to him, he called her, and she was real sensitive to what he was saying, but sometimes she would say, "Let me talk to your mother or your dad" and she would say, "I think you ought to do this and that." But sometimes she would say to Ted, "Your parents are right. What they're telling you is the right thing to do." So Ted would be satisfied with that.

So it was interesting, and we were real lucky to get to keep her for that long, that many years. Seven years was just—by that time, they were getting older, so I wasn't quite as worried. But it is a problem for working mothers today, more, almost, I think, than it used to be.

WRIGHT: And quality care for your children. You mentioned about carpooling. So you saw your husband quite a bit while you working. A lot of people who work, you don't see your spouse.

HEDGEPEETH: That's right.

WRIGHT: Was that a perk or did that sometimes cause any kind of tension that you were both out there at the same time?

HEDGEPEETH: No, I don't think so. We were doing different work. Well, he looks like he might want to say something. Did it cause tension for you?

MR. HEDGEPEETH: Well, I was thinking more about a funny thing that happened one day. It was in the cafeteria, at the air base cafeteria. At lunch break or something like that, we'd go over there, and there was a fellow who worked with us for a number of years in NACA and he had a piece of paper and he was just writing and writing and writing and writing and writing and writing, and I said, "What in the world are you doing?"

He says, "I'm multiplying the number of days I've worked here, how much time it's taken me going back and forth to work, and adding them all up and figuring it out in [days], and you know, I'm going to resign." He went over and resigned that day. He said he was spending a third of his life going back and forth to work. That was kind of funny, you were talking about that.

HEDGEPEETH: We were lucky to get to spend that time together, going back and forth to work, and our boys were just immensely interested in our work, and still are. So I didn't have any of that kind of problem. I, of course, did run into people that didn't think I ought to be working,

with children. But I tried to spend a lot of time with them and they were really interested in what we were doing the whole time.

One lady said to me, sort of snippily one time, "Well, I have all that I need to do, taking care of my family and my house." Johnny was there at the time.

After we separated from her a little bit, he said, "I felt like telling her she had, it looked like, more than she could do." [Laughter]

But interestingly, we still had people that—you know, in those days, and even today, there are people who don't think women ought to work, but I think the time you spend with your children is more important than—if you actually spend some time with them, than, you know, being at home all day.

I never regretted working, and I think that our boys turned out well. Our oldest son died last year, but our other son is still living and he has two children, so we have two grandchildren, have a lot of fun with them.

I've had some good trips with the government and with GD, and we went back East almost every year to see our parents. Mostly we flew, but two or three times we went by train to give our boys the experience of seeing the country from the train and also talking to people from different parts of the country.

One time I took the boys back and they were getting ready to play cards with some little children on the train. A little girl said to Ted, "Do you want to play Old Ma-yid [Southern accent implied]?"

Ted looked at me and said, "What is that?"

I said, "She's saying Old Maid, the card game Old Maid." He couldn't understand her, so they got that experience.

MR. HEDGEPEETH: What was your motto at school, Tut?

HEDGEPETH: What, at college?

MR. HEDGEPETH: Yes, college.

HEDGEPETH: I don't remember.

MR. HEDGEPETH: Wasn't it something to the effect, "Educate a woman, educate a family"?

HEDGEPETH: Oh, yes.

MR. HEDGEPETH: And I'll tell you, Tut did an outstanding job. She worked, and I'll bet she spent more time with those children than the average mother would with their children, because she was always a very affectionate and loving mother.

HEDGEPETH: It was, "Educate a man and you've educated a man, but educate a woman and you've educated a family." I used to take our boys, when I was home, at picnic time, down to the park for picnics and I often took some of their little friends along, too. We lived not too far from a park. And one day, one of their friends' mothers came over to our house and she was actually about to cry, and she said her little son said to her, "You probably should get a job like Ted's mother has so you'd spend more time with me." So he had noticed that I did spend some time with them.

WRIGHT: Did the folks at the Flight Research Center become more an extended family? I noticed that you said earlier that you socialized and you carpoled and you worked there, and there wasn't lots to do, so did you end up becoming—

HEDGEPETH: Definitely, in those early years we did, yes.

WRIGHT: Some people may not have enjoyed that, because like you never escape from that whole work environment, but was it more than just that, where you had a chance to get to know these people as, like I said, family members?

HEDGEPETH: Well, pretty much. In fact, we not only worked in the same place, but of course, we lived in the same place. At first we lived in Mojave and those housing places, and then when we did actually build a house, all the neighbors around were [NACA] people, too, so all their children were our children's friends, so it was like a family. I think in more recent years it's not, but back in those days it was.

WRIGHT: One of the pieces of research that we read was that, of course, many single men and many single women, or not many, but some single women were out there, and because of the times and the social climate, they really didn't want to go places without chaperones. Did you and your husband, as a married couple, ever work in that job status, where you all would go with the single people to kind of be the chaperone on a social level?

HEDGEPETH: Well, I never recognized that. [Laughter] Seems to me like the men and women went everywhere together. I never knew any women that were worried about going anywhere, that I can remember. But they were there, you know, at the parties and things, and women would come and the men would come. But there probably were some, maybe, they worried about that, but I never heard about it if they did.

WRIGHT: You also mentioned, as you were going through some of the places that you'd gone, that some people even admitted to going out to Pancho Barnes'. Was that something you'd like to admit as well?

HEDGEPETH: No. I actually never did, but Johnny has. Do you have anything to say about Pancho's?

MR. HEDGEPETH: What's that?

HEDGEPETH: She wondered if I had been to Pancho's. I never did go to Pancho's.

MR. HEDGEPETH: I've been over there many times. In fact, I used to do a lot of photography work for Pancho herself and it was always kind of fun. Also a fellow worked with me in the area which I was working in. The photo lab was under instrumentation at that time and he assisted me a lot with my work. But he also ended up marrying one of the girls that worked at Pancho's. I used to go over there with him and I went over at other times, too.

It was an interesting and colorful place and I can remember some funny stories, some of the type you wouldn't like to hear, wouldn't like to have printed, but I mean, some of the funnier stories.

When we first came to the base, everything was on the south base. This was long before the base as it stands now even existed, and everything was—you had Douglas [Aircraft Company] next to us and Northrup [Corporation] on the other side of us, and places like that.

It was a real small, cohesive group of people. Everybody enjoyed each other and got along well and worked well together, and all the companies worked like, Peter robbed Paul, or something like that. You paid him back, they'd pay you back. You loaned them something, they'd loan you something, the Air Force and NACA and that type thing. But it was really a real

neat place to work and we thoroughly enjoyed it. It was one of the jobs you could hardly wait to go to work on.

We didn't like sometimes the change in our working hours. I think she probably touched on that, when we were going in early in the morning and get off at two o'clock in the afternoon. It was kind of a strain on us, because it made it kind of a short day with having a couple of children at home, too, for us, getting things done, I guess. But it was a lot of fun going over there.

HEDGEPEETH: Pancho, you know, I heard all about her place and everything, and there were bad things said about it, but she insisted, always to the end, that it wasn't a house of prostitution at all. They were just there to entertain the people, and I don't know that they didn't, because I didn't go there [to Pancho Barnes' place].

Interestingly, our oldest son, Ted, was real taken by flying and we found it out in a bad way. He did fine in high school, but he went away to college and went as far as you can go in California and be in the California university group. He failed everything the first semester. We talked to him and told him to go talk to his teachers and he didn't do much better the next time. We called the president of the college and said, "Look in to our son and what he's doing."

That was during the drug years were starting, and we were afraid maybe he was—and the president called us back and said, "No, Ted's not into any problem. He doesn't just show up. When he comes to class, he does fine, but he doesn't show up most of the time."

And we found out that he had made friends with the boy whose father ran the local airport, and was working at the airport over there in exchange for flying lessons, while we were paying for him to go to school. But by the time we found out, he'd got his license.

Anyhow, he, two or three different times, flew with Pancho. He got acquainted with somebody that worked in her area out there, so he actually flew with Pancho. That was after the

days that she was at the Happy Bottom Riding Club. We gave him a book about her for Christmas here a couple of years ago.

WRIGHT: Of all the data that you looked at and analyzed and worked with engineers, did you ever have the desire to become a flyer as well?

HEDGEPEETH: No, I'm sort of sorry to say that I'm not an enthusiastic flyer. I fly when I need to go somewhere or want to go somewhere because it's the quickest and best way to get there, but I don't enjoy flying. I enjoy more riding on a train, but I do fly. But, no, I never did.

Johnny, in his early years, took a few flying lessons, but he never did do anything with it. But Ted was real outstanding in all kinds of flying. He taught flying and he was a big balloon person. He taught and had a business of balloons, selling and training for them. So he caught that part from us, I guess. And our other son is a lawyer. He's not as happy-go-lucky as the first one was, and he attends a little more to detail. He's a lawyer now.

WRIGHT: Always good to have variety in families.

HEDGEPEETH: That's right. It is, it is.

WRIGHT: Why don't we take a break for just a few minutes and we can visit and then we can come back and see what are the things that we might want to touch on before we close up for the day.

HEDGEPEETH: Here's a picture of us at the museum at Edwards. That's just taken when we went to the reunion.

MR. HEDGEPETH: That's the new Air Force Museum. We hadn't been to it yet. That's a picture of the stamp that came out, that they had mounted on the wall there.

HEDGEPETH: I happened to come across this, and this shows all the airplanes that—well, actually, most of those while I was there, but all of the early pictures were taken by Johnny, and any ones you see back in those days were all taken by him.

MR. HEDGEPETH: Until about the time Tut left to go to work for the Air Force, I was the only photographer there. I was processing all the flight data, processing and taking all the pictures, all the air-to-air photography, all the ground photography, historical photography. Whatever it was, I was doing it all, taking them and printing them and processing them in total, and doing everything.

But when we had a lot of flights backed up, I had a number of people from instrumentation who would come and help me with the processing of all the data records, and they were all processed by hand. Those were the days we didn't do anything but black-and-white photography, no digital cameras, no video cameras. Everything was taken, just a regular strictly old flash camera and not any special type motion picture camera and processors processing every inch of it, and everything was in black and white in those days.

Then I was hired away from NACA about three years after her to go to work and start a space positioning facility there at the Air Force, and that was real interesting work for me. I just loved it.

HEDGEPETH: He's told some scary stories about some of the pictures he's taken from the air, leaning out the back end of a helicopter.

MR. HEDGEPETH: A C-142, I believe it was.

WRIGHT: Well, let's stop for just a minute and we'll come back.

HEDGEPEETH: Okay, all right.

WRIGHT: Let's do that.

HEDGEPEETH: Really, when I was working at [NACA], I was working in a group, and the leader of that group actually passed out the work to people, and it was fairly routine work. I know that the data was important to someone in describing what the aircraft was doing and what they could go on and try to do next, but I can't honestly myself relate what I did to a particular project. In fact, no matter what airplane it was, we just about did the same thing.

WRIGHT: Did you know what data you were working on for what project at the time?

HEDGEPEETH: Probably I did, yes.

MR. HEDGEPEETH: I'm sure you did, but you just don't remember it.

WRIGHT: There were many projects going on at one time that you were involved in, or were you maybe assigned to a team that was working on one plane and another team was working on another plane?

HEDGEPEETH: No, I'll tell you, I think that I was pretty well spread around among whatever was going on then.

MR. HEDGEPETH: It was basically a pool of people under Roxanah Yancey, and she would distribute work as needed to be done by different people, and then it would be double-checked, and then she double-checked.

HEDGEPETH: And then they'd give it back to her and she was the one who talked to the—

MR. HEDGEPETH: She was a very thorough person.

HEDGEPETH: She was.

WRIGHT: She sounded like she must have been a strong personality in being one of the first women here and helping to set that up. Did you work for her for many years?

HEDGEPETH: Oh, no. How long after we came to Edwards before I—four years, three years, maybe?

MR. HEDGEPETH: Well, we came out in '48, and then you left—

HEDGEPETH: Early '53. About four years.

JOHNSON: One of the things in the book they talk about—I'm not sure if I'm pronouncing it right—oscillograph film, is that one of the things you did was read the film?

MR. HEDGEPETH: Oscillographs were a large recorder which had about a twelve-inch-width paper roll, just rolled through, and it would read the orifice data on the plane or any type things that they had that were trying to record twisting, buckling, or any performance of an individual

item on the airplane, and they'd be feeding data by strain gauges and so forth to the recorders. I did all the processing of that, and my people or the people who worked with me loaded all the stuff like that onboard the aircraft, you know, the instrumentation people.

HEDGEPEETH: And then what we did was actually just use a ruler like and measure how far up from this, and then when it changed and write this down.

MR. HEDGEPEETH: You would have many traces on this thing. It would be this wide and there might be 100 traces on that, and each trace was coming either off a strain gauge or an orifice for pressure, or whatever they had them set up for. They had various things. I'm really not helpful, but I know that our instrumentation people were always constantly mounting new things onboard to stress points on the aircraft, or testing to see how it would hold up under certain G forces and so forth, against a time base, of course, onboard aircraft.

HEDGEPEETH: We had, for instance, something like that on every aircraft. When I would read those measurements off of there, I was doing practically the same thing on every one of them.

MR. HEDGEPEETH: They had very simplified equipment. The state of the art was very poor in those days. In fact, we had a piece of equipment on the base there which, one of the very first things I got associated with and got rid of almost as quickly, was what they called a photo grid. A photo grid was a method of shooting with some wires that were numbered by distance, and then accurately placed against surveying and then some grid wire, and you'd shoot through that and photograph an airplane taking off to see how much time it took them to climb or wheels up and how fast he'd clear a certain height or something like that and then when there was a different photo optical system to do that later on.

It was a very crude method, but that was what they had before I went over there to space positioning. And by the same means, we were also using that for recording data for joint Air Force-NASA programs. And there was a lot of that, you know, joint work together.

HEDGEPEETH: We did finally have a few early readers that we could put something like the oscillographs on and use a pointer, like, to go up there and then press a button and it might read off three inches, from here to here, or 3.898 or something. But we did a lot of this, most of it, as I remember at that time, by hand, actually, and measured it ourselves and wrote the number down.

WRIGHT: Did anything that you did at Langley compare to this, or was this all new type of work for you?

HEDGEPEETH: Mostly I did that kind of thing at Edwards or Muroc. Mostly when I was at Langley, and I was only there a couple of years, I was doing mostly just calculations there. I don't recall reading anything at that point. I don't know where that was done.

MR. HEDGEPEETH: You don't even know what the data sources were.

HEDGEPEETH: No, I don't. I really don't.

MR. HEDGEPEETH: You were just doing what was handed for you to do and they told you what to do. Like I say, it was just a computer pool, basically, in her first 19-foot tunnel job, and then when she went to work for Flight Research, then she got more into working with real flying airplanes and the test operation there. I never discussed too much with her what she did then except we knew she was doing her job okay and that's what I wanted.

JOHNSON: Getting your paycheck, right?

HEDGEPEETH: That's right. Good yearly awards.

WRIGHT: Any training you received when you came to California?

HEDGEPEETH: No, just Roxanah Yancey probably telling me what I needed to do. I didn't have any formal training for that at all. And I don't think a lot of the people that worked in that group, and I can't remember for sure, but I don't think they particularly had degrees. I think it was the sort of a job that they would like to have people with degrees, because if something more critical in the way of calculations came up, we could do it, but a lot of this measuring stuff, it didn't require a college degree.

MR. HEDGEPEETH: Well, there were only three of you, I think, that for the longest period of time did that, Roxie and Mary Little and you.

HEDGEPEETH: Mary and me, I think. I think probably the other people did not have a degree.

MR. HEDGEPEETH: It wasn't necessary, really.

HEDGEPEETH: I'm sorry to not be able to tell you something a little more exciting than that. I felt like my work was important, but I can't tell you why right now.

WRIGHT: I think part of it, we were talking earlier about it, the importance is that it built. What you did was used to build upon the next one, and the data was to improve.

MR. HEDGEPEETH: Well, like we started out with the Glamorous Glennis X-1. We had four or five X-1s. Every one of them was an improvement over the other one for one reason or another, and I watched two of them be destroyed, one in flight and one burned up while it was being mated to the mother ship. I had to work overtime one night and I was right down there taking pictures of the loading of the X-1, mating it to the mother ship, and fire broke out and just consumed the B-29 as well as the rocket ship that was with the X-1, and it was total disaster.

In the early days, it's kind of funny, we'd just arrived here, and that's an interesting point that she didn't mention, we had just arrived shortly after Howard [C. "Tick"] Lilly was killed. He was the first NACA test pilot ever killed in flight-test work. And a real good friend of ours, an old-time NACA employee, Don [E.] Borchers, he was somebody that's been a real close friend to our family and still is, and his whole family. Don just got so broken up over that accident. He was the crew chief of that plane, and he always felt he had a personal part why that plane crashed, and he just resigned.

HEDGEPEETH: He felt if he could have done something more—he didn't know what—maybe it wouldn't have happened.

MR. HEDGEPEETH: He's a wonderful person. He's one of my favorite friends throughout the years, and he's still living, too. But he took a job at a post office after that and he did that till he retired.

HEDGEPEETH: That's a big responsibility, crew chief on one of those research aircraft. You know, it happens.

MR. HEDGEPEETH: See, we had two D-558-1s out there, and then we had two D-558 Phase 2s out there, and one was a rocket only and one was a jet engine assisted takeoff and conducted test, but finally started settling down strictly on a rocket carrying more fuel, getting more research time, drop it and could run the tests that they had to.

HEDGEPEETH: My experience at NASA certainly earned me the chance to advance with the Air Force. I realize that what I'd done made that possible. I really did tell him that I was afraid you'd be thoroughly disappointed.

WRIGHT: Not at all, not at all.

MR. HEDGEPEETH: Really, the point she just made is very interesting. In the early days, there were no people available with the little bit of information that we had anywhere, so, man, every company was trying to hire us. She had a half dozen job offers; I did, too. One would say, "Well, let's do it, let's not do it, let's just stay with it." I'm glad we did, after it was all over, believe me, because we have so many friends who did leave for these high-paying jobs that just turned out to be disastrous.

They were looking for work for a long time after that. They'd get another job that may not have been as good as what they left NACA with, or maybe had to go into another field, and a lot of people who really got beaten up by that going back and forth. They'd get hired on, relocate, bam, it's gone. You know what I mean? And that has happened. We never at any time in our whole life while we were working in NACA worried whether we were going to have a job or not.

HEDGEPEETH: Or the Air Force either. We never did get in that situation.

MR. HEDGEPEETH: We never did have any concern that we were not going to have a job tomorrow, and we may not have made quite as much money, but we loved that work at that time, and like both of us, I mean, me in particular, my job then, I just loved the first ten, twelve, fifteen years of it, but then it got to where I got a desk job, which I had to look busy and I couldn't, and I just despised it. I had a chance for an early out and I took it and jumped on it, but I had thirty-six years total time, so I didn't get hurt by it. But I've been retired about twenty-three, twenty-four years now, I think.

WRIGHT: Well, you were two of the first twenty-two, or two of the Langley twenty-two, as you referred to them.

MR. HEDGEPEETH: No, I'm not going to say that. There were some people here that were not [Langley] people—because some of them came out from Wright-Pat [Patterson Air Force Base]. They didn't come from Houston because Houston wasn't in the picture at that time. They didn't come from Cape Canaveral [Florida], so some of them could have come from [NASA] Lewis [Research Center]. Possibly we might have had one or two from up at [NASA] Ames [Research Center]. I'm not sure what the status of Ames was at that particular time, because it seemed like we did a lot of joint work, joint programs with Ames, too. They'd come down here and we'd assist them on whatever they were trying to do here at Edwards for the flight test phase of it.

HEDGEPEETH: And a couple of the women were wives of men who had come to do some other sort of work.

MR. HEDGEPEETH: I think another aspect of it that's kind of interesting is the fact that just about every program that we've worked on involved people from the individual aircraft companies

that we've worked with. Like Bell Aircraft. We can name people back that we were real close with through many years from the base on, and we had meetings with them a lot, participated in some meetings with them at different levels. Now, I'm talking at maybe NACA, but not much.

But then as we got on into other work, work with, work for, they worked for us or one of the other type thing, flip-flopping in some cases, and that type thing was kind of interesting because most everything we did, it was a joint Navy-NASA, joint Air Force-NASA-Navy, joint Marines-Navy-NASA-Air Force-type thing. And they were all joint programs and a lot of times we were involved in meetings and things like that, where these people were all participating in it and putting their inputs in to whatever is going on.

WRIGHT: It must have been an exciting time to have all those interactions from all those different people and projects. Was there that feeling? We read so much in the [NASA] Dryden [Flight Research Center] materials about the feeling of closeness and teamwork with the people on the center and that that's what kept so many people interested in the work was that the work was so interesting and there was that spirit of teamwork. Could you, either one of you or both of you, give us maybe an example, or comment on those times?

HEDGEPEETH: He might more than I would because his job allowed the actually working with the—

MR. HEDGEPEETH: For example, it was a feast-or-famine-type thing all the time out there. You had money, you didn't have money. You had overtime, you didn't have overtime. Or you had no overtime at all, period, type thing. And then we'd get to the point where—and we did a lot of overtime. In fact, we did a lot of overtime, no pay whatsoever. In the early days, I bet you we averaged ten, eleven hours a day on a job and did not get a nickel's extra work for it. And a

lot of times, "We've got to get a job done, guys," and so everybody would come in and work anyway. Everybody, not just me, but everybody, we'd work a lot of hours.

In fact, in the real early days, they would work a lot of days with no pay whatsoever, overtime pay. They'd just run out of money. But everybody seemed to work, and then it was beg, borrow, steal, like I said from, like the Air Force would run out of film or something like that, or run out of something, or run out of some kind of equipment. They'd come borrowing from us, and then, likewise, we'd go borrow from them. As soon as we got our supplies in, we'd pay them back or they'd pay us back, and that's the way we operated.

HEDGEPETH: And they're still, I think, doing a little of that, because when we took the tour out there at the machine shop, I think, one of the fellows that was showing us around at the reunion said, "This is something we borrowed from the Air Force."

MR. HEDGEPETH: But it was. Like I said, everybody worked well together, everybody seemed to like each other, and even though we had some funny comments like we talked about the guy who drove on the wrong side of the road, and we had another guy that wouldn't use his brakes hardly, because he was going to wear out his brakes.

WRIGHT: Well, before we close, I was going to ask you kind of a domestic question. When you mentioned the dust when you first when out there, it made me think about everyday things that we do now. When we wash clothes we put them in a clothes dryer, but I don't believe you had those facilities back then. How were you able to maintain some type of cleanliness with your clothes?

MR. HEDGEPETH: We went to laundromats. We didn't have a washer and dryer or anything like that, so anything like that we had to go to the laundromat.

WRIGHT: Everything was in town then?

MR. HEDGEPEETH: In the little town of Mojave. There wasn't much in town, the little town Mojave, and there's still not now. But it's just a small place.

JOHNSON: Speaking of that, I was wondering about the dress code at that time. Were the women required to wear dresses and hose?

HEDGEPEETH: I don't believe that women were required to in any way by [NACA], but at that stage of our lives, women just did. Women didn't wear pants, you know. I think the first time I wore pants to work was after I was working for the Air Force, and they had a picnic or something at lunch, and I took a pair of pants to put on at work and went to the picnic and I came back and put a skirt back on.

MR. HEDGEPEETH: Something I do remember is that it used to be that all men had to wear suits to work, and if you can visualize the type of temperature, swamp coolers, and men sitting around in suits, jacket, ties, and choking and dying on the spot, they came out and said, "From now on, there will be no more coats and ties. Shirts only, and pants."

HEDGEPEETH: At work today, people can wear shorts, but we didn't do that then. But of course, you see that same thing in church today. We used to wear a dress all the time, and people just aren't doing it. In fact, my sister is married to a minister and he retired here about two years ago. My sister Betty told me that she got rid of every dress that she had. She said she told Lyman she was never wearing a dress. She got rid of them altogether and all she has are pants

now. But that's just a change in how we did. But, no, we did not wear pants to work in those days. Nobody told us we couldn't, it's just that we didn't wear them.

JOHNSON: It wasn't socially acceptable.

HEDGEPEETH: It wasn't the thing to do, right.

JOHNSON: Also in the book we've heard them refer to the "mole hole," where the computers were. Was that during your time or was that after? That may have been after you left.

HEDGEPEETH: Must have been. I never heard that expression, and we didn't have any computers. You mean people computers?

JOHNSON: People computers.

HEDGEPEETH: I never heard it.

JOHNSON: That may have been after you left.

HEDGEPEETH: It might have been. That's interesting. I think it would have been before. I never heard the expression and I don't know how it could have come about with regard to where we—you know, we had an office that was on the ground floor, and didn't have windows and that, but I don't know what that came from.

WRIGHT: I believe it was a reference when the assignments tended to shift where the computers were not working so closely with the engineers on a day-to-day basis, that they had put a lot of the computers into another room, and they were basically separated.

JOHNSON: It refers to in the early fifties some time, so I didn't know if you were involved in it.

HEDGEPEETH: No, I wouldn't have been. Maybe. I didn't go to the Air Force till '53. But that was the case, that when I got there, we didn't work very closely with the engineers. Occasionally, one of them would come in and work with us individually, but mostly Roxanah Yancey was the one that had any interface with anybody. We worked through her and she'd talk to them. Somebody could have referred to it like that. I hadn't thought about that, but that is the way it was. That's for sure.

WRIGHT: We've talked about it being warm or hot during the day. Was it cool when you were working there in the evenings or early in the mornings when you would get there, were the temperatures such that—

HEDGEPEETH: Well, generally. Are you too warm in here right now? Because we do have air-conditioning today. I'm a real hot-weather person. Hot weather doesn't bother me. Even in Virginia or Texas, it doesn't bother me. I like to be hot. When we first got married, all we could find there in Virginia was, again, old World War II housing, didn't have any, of course, air-conditioning. The only heat in the place was a wood stove, which neither one of us had ever had any experience with, and we needed to use that for cooking and for heating the place as well.

We had snow that winter, too, and the doors had a space about that big in between the door and the floor of the house, and when it snowed, it snowed under the door so we'd have

snow underneath the door, about like that, and we just about froze. We would come home from work and make a fire in the wood stove, and by the time it warmed the whole place up, it was bedtime, and we never learned how to bank the thing so it would be warm in the morning.

I often tell people, even if I was sick I would go to work, because I wanted to get warm so much. I remember saying then, "I'll never complain about being too warm again." And I haven't much, that's the truth. I don't mind hot weather.

So, no, I don't remember being—in our offices at work, we did have evaporative coolers that they use in the desert some, and they do a good job in the desert, too. I don't remember being hot or cold here. I think I'm not very sensitive. [Laughter]

WRIGHT: It probably doesn't bother you.

HEDGEPEETH: Well, I guess that's the truth. It doesn't today, does it, Johnny? We have not had our air-conditioning on this year, and everybody else we know has them going full time all day.

MR. HEDGEPEETH: They're scaring people right now quite a lot about even running your air-conditioning, about electrical problems.

WRIGHT: Only one other issue I can think of to maybe touch on before we close for the day. We've all mentioned World War II a couple of times as we've spoken and you served, from what you were saying in there, John, and you were in college during those years. And then you both came out to a research center that was testing aircraft that possibly could be used in some type of Cold War activity. Could you share with us your feelings on that? Is that something that was discussed much here on the center, or was it just part of a job that you accepted?

HEDGEPEETH: Well, to me, it was just part of a job that sounded interesting to me. I never really thought about—I have worked in a place where one person came in and took a job as a secretary, I believe, and quit that day because she hadn't realized that she would be working in an area that was testing fighter airplanes, and it was against her religion to participate in any kind of war activity or support, and she quit. But I never thought about it. Maybe you have some feelings on it.

MR. HEDGEPEETH: No, I always liked it. We both just enjoyed our work and we thought we were contributing to what we were supposed to be doing the best we could, and we didn't have too much leeway in that type job. I had probably a lot more than she did. I know I did, in fact. But at that time, it was just a computer pool of people, and it was a follow-on from even Langley Field. That's exactly where they would do it.

In fact, this friend of hers, Lillian Boney, who was a college friend and they roomed together when we got married, her last day she was still in the computer pool, I think, more or less, doing different projects, as called upon, or you might be working this today, you might be working that tomorrow, but basically it was just the numbers and the data was the same, regardless of what it came from.

A lot of time you just didn't even—well, I'm sure you knew at the time, but you just didn't think about it, but you just did it because that was part of the job and it didn't make any difference to you because it was the same thing. It was pretty repetitious.

HEDGEPEETH: And it was financially a good job. It didn't sound like it, \$2,300 a year, but at that time it was a good job, so I was glad to be making that much money.

MR. HEDGEPEETH: The equivalent is about \$60,000 today, or better, \$70,000 maybe, in comparison.

HEDGEPEETH: Well, I don't know what it would be, but I couldn't have done a whole lot better anywhere else at that time.

WRIGHT: And it certainly led you to quite a bit of adventures with other companies though.

HEDGEPEETH: Yes, it did.

MR. HEDGEPEETH: Another little interesting thing that has absolutely nothing to do with what you're talking about, that we think about is that I got my father a job out here, and what it was, the head of all of our handling the facility there, a fellow named Harold Richards, I got to telling him about my dad and what my dad did back then and he said, "Man, I'd sure love to talk to your dad. I'd love to see if I couldn't talk him to come out here and work with us."

My dad had worked for thirty-two years for a seafood-packing plant back in Virginia, for J.S. Darling. It was one of the largest seafood-packing places in the United States at that time, and he'd worked basically the same salary and he'd had two fifty-dollar raises in his whole thirty-two years.

Now, this is the way things were in those days. Like her father, he probably started at a certain salary and he darn near left the company making the same salary. That's the way things used to be in those days. You hardly ever heard of advancing like we do today. If you haven't gotten an advancement in a week, you're gone, you know, type thing. In those days, if you had a job, you were damn glad to have it, and you stayed with it.

HEDGEPEETH: With regard to my father, my mother did teach. She quit teaching, see, when I was born, because that was back in the days when the women didn't do it, and didn't start teaching again, and got her master's degree then when my sisters were about in high school.

But my dad was able to, how, I don't know, but not making any more money than that, put three of us through college. I don't know how they did it.

MR. HEDGEPEETH: Of course, college cost about a fiftieth of what it costs today. It's all relative.

HEDGEPEETH: Go ahead and tell about your dad, though.

MR. HEDGEPEETH: So anyway, I was telling Harold. He said, "Do you think you could get your dad to come out here and talk to me? I tell you what, if you can, I will get your dad's way paid out here from Virginia to come talk to me about possibly coming to work for me," and my dad did. My dad jumped at it, and, in fact, I had talked him into it and told him what an interesting place and some of the benefits he would have, which he's never had in his life, and much better pay, than I knew he was.

So he took that job and his salary was about three times what it was what he came in doing. And he just thoroughly loved that job. He worked till his seventieth birthday. So it's interesting, I left a couple years after Tut went to the Air Force, and that's just about the time that I talked my dad into coming out here, and he went to work for them, and he just absolutely thought that was the best job in the world, and he was making really good money, more than he ever had, half a dozen raises type thing, as he went along. And then had benefits, which [were better than] Social Security [benefits].

HEDGEPEETH: He would have worked for free, though, he loved it so much. And here's another family tie-in to NASA. We have a good picture of Pop, his dad, putting up the sign when the name changed from NACA to NASA. We've got a nice picture of him actually putting up that sign on the front.

MR. HEDGEPEETH: On the front of the building after it changed from NACA to NASA. He was the one who installed the logo over the building.

WRIGHT: And how proud for him.

HEDGEPEETH: Oh, he was. He wore it till he died, I think, a NASA hat all the time.

MR. HEDGEPEETH: But he did. But anyway, he came out here and he took that job. It was kind of a dual purpose. He did whatever he needed to do, but he also did the walk-around equipment to check it, a timekeeper or something like that, or whatever you called them in those days, just walk around and check his station and punch in that you were here and you were here and you were here. Like a nighttime guard, I guess, but he really wasn't meant to be. It was just to make sure all the equipment was functioning and that type thing. He did that part-time, and he did a lot of nighttime work, but he loved it. He just did. And then he could do anything.

But anyway, he worked till his seventieth birthday, and then Tut tried to match it, and she did. I've always thought that was kind of an interesting story, and they did pay his way out to come out just to talk to him about possibly coming to work and pay his way back, and then they paid to move him out here, of course, and that type thing.

HEDGEPEETH: I won't tell this story to embarrass Johnny, but one of the nicest compliments I think I've ever had came from his father. After they retired, they went back to Virginia for a few years, and all three of their children were living in California, Johnny and both of his sisters. I talked to Pop one night on the phone and he said, "Tut, I miss you more than anybody in California." Now, how can you ask for a better compliment than that from your father-in-law? That meant a lot to me.

WRIGHT: Before we close out today, you have to tell us why you kept the name Tut, or is that just what people started to call you?

HEDGEPEETH: No, it has a real meaning. My grandmother, my mother's mother's maiden name was Tuttle, so they named me, when I was born, Mary Tuttle. Whisnant was my last name. But they, I think, started calling me Tut the day I was born, and so nobody has ever called me Mary unless they just see my name in an official capacity or something. I sign my checks like that. That's about it. But everybody calls me Tut.

What do you want to tell about?

MR. HEDGEPEETH: Why don't you finish the story?

HEDGEPEETH: They're not going to get away from here very soon. Our youngest grandson, who is seven now, when he was born, I had no idea that my son and daughter-in-law were going to do this, but they named him for my grandfather, that my son never did even see, and my grandfather died before Lee was born, and they named the baby Tatem Clay for my father's father, my grandfather. I just adored him. He was just the most wonderful grandfather in the world. I guess they'd heard me talk about him so much.

So when our little T.C., this one here, was, I think, about two years old, we all went back to North Carolina to the little church which my grandfather attended when he was about that age. His folks lived right next to this little country church in North Carolina, the Golden Valley Methodist Church. We all went back there to have little T.C. baptized in the same church where we think my grandfather probably was baptized because his folks lived there and were buried in the cemetery and everything. The church records are gone for that many years ago, but it was a real sweet ceremony. It just meant a lot to all of us.

So that's where that picture came from. It's actually made on the porch of the house where my grandfather lived. It's still standing and somebody lives there. We were able to have permission to go in and look all through the house. It was a real something for T.C. to remember in his old age, you know, that that happened to him.

WRIGHT: Well, you all both left quite a legacy to your family and quite a contribution to NACA and NASA and the Air Force, and so much of the flight research.

MR. HEDGEPEETH: The one thing we really like is that NACA keeps in touch with us all the time for almost anything going on. It's like we are still part of NACA and I think we can look back at closer relationships to NACA than we had with the Air Force because it's an entirely different type thing and really had hands-on type operation, where you felt you were participating, and people would say, "Well, Tut's in charge of this or does this," or, "She sets up the meetings" [on the AFTI F-16 Program at General Dynamics].

Well, actually for the first year of the AFTI program, she was the number one person there, running everything. I mean, getting the office set up, hiring people for it, and doing things like that. She was really initially involved in that right from day one. They hired her and let her go her own way and do what she has, select the type people she wanted to be working with and that kind of thing.

Now she's getting in where she can talk about specifics, you know what I mean, and where she was unable to at NACA, Langley, or here. You've got to look at the type job she had, even though she had the title. It's like so many titles, you really aren't used but maybe 1 percent of what you have and the job you're doing, but you had to have it to get the job you're doing, and that's the way this particular one turned out.

HEDGEPEETH: We had an interesting experience after we were living in Bakersfield. Johnny and I went to a meeting, at which one of the professors of one of our colleges spoke, and he was blind, and was just the most wonderful speaker. Just had a good sense of humor, he told some interesting things, and says he considers his sight just a small handicap because he can do what he wants to anyhow. I was so impressed, and I wrote a letter to the editor of our local paper and I said, you know, it was just wonderful to hear him speak and realize what he's done with the handicap of being blind, and his attitude was so good. They printed that in the paper, and that afternoon, we were going into a computer store or something here, and some man came running up and he said, "Tut and John Hedgepeth." He lives in Tahachapi [California], he doesn't even live in Bakersfield, but he got hold of the paper and he happened to read the letter to the editor.

MR. HEDGEPEETH: We hadn't seen this man for twenty-some years.

HEDGEPEETH: He said, "I knew that's who that Tut Hedgepeth was. I remember well going to a meeting years ago, and you were conducting the meeting and that was the first meeting I'd ever been to that a woman was in charge of things. I've never forgotten that, and then when I saw that letter, I knew that was the same one."

MR. HEDGEPEETH: We thought that was so funny that he remembered and that he had that experience, and had just happened to see that and be in Bakersfield the same day that that thing came out. It was really unbelievable.

HEDGEPEETH: And see us there. Well, he didn't remember me for my ability, particularly, it was just—

WRIGHT: Ah, but your ability is what put you in that position.

MR. HEDGEPEETH: A lot of times in the early days, she was always in the high—well, when she left the Air Force, she was the highest rated woman on the base, at the Air Force, not NACA, because I think some people might have gone higher. But that's one reason I left. I was just locked in for about seven years in a row, couldn't go any higher, and they just wouldn't. But since then, that same job I had, now is a GS-14 or something like that, but I never got that high. However, quite often, she was initiating many of the meetings which she got involved with, with Air Force key people and things like that, and a lot of people, you know, talked about that. She's even had a case where some people came to work for her or that were assigned to her that resigned because they didn't want to work for a woman.

HEDGEPEETH: We had one, yes.

MR. HEDGEPEETH: You had one person that you liked him and he liked you personally, because it wasn't anything against you, but he just didn't want to work for a woman.

HEDGEPEETH: That did happen with one person. Mostly, the men that worked for me, I got along with them all right, but there was one that—and I didn't care. I told him okay, if that would bother you that much, fine.

MR. HEDGEPEETH: She helped him get another job, in fact. However, she had a number of people that really came out real strong for her in a lot of cases on different situations. I mean, some really high-ranking people came up one time and she got in—one time there was one position that she'd been doing for almost a year, but when they came to assigning somebody in it, they selected someone else who hadn't even done that kind of work, but was it a man. They didn't want to have a female for it. She contested it and really had a pretty lengthy thing on that.

HEDGEPETH: Unsuccessfully, though.

MR. HEDGEPETH: Unsuccessfully. That's exactly right. But no one said she was wrong. They agreed that it probably shouldn't have gone that way, but it had been done and it never was overturned. So she had a lot of things like that at different points.

HEDGEPETH: Some of the women that were around at that time maybe got a little encouragement, you know, and they looked into that kind of thing before a selection was made.

WRIGHT: It's admirable that those types of things happened to you, but it didn't deter you from staying and continuing to try to advance and do the positions that you were asked to do.

MR. HEDGEPETH: When she was working for the Air Force, she frequently had military people, both [civilian] and enlisted military people working for her, but she'd also frequently have captains and majors assigned to her, at the level she was working at, too.

HEDGEPETH: I had one young lieutenant that was just—I liked him a lot, but he was just impossible for working. He just didn't, I don't think wanted to work anywhere, for that matter. And I had to make his annual evaluation. I told him, "You've got to do a little better or I'm going to not be able to give you a good recommendation." He wasn't smart to me or anything, but he didn't do any better. He was a playboy type. He was interested in a lot of other stuff. Figured he was going to move on along up into the higher ranks, and I really gave a pretty poor annual review.

But he came back to me later and he said, "Well, I really sort of appreciate what you wrote down. I had not been really good at my work or anything. I can do a lot better. I'm

pleased that you didn't say anything worse than you did." And he did do a lot better after that. I felt bad, though. I always hate to give anybody a poor recommendation. That's one of the hardest things as a supervisor.

MR. HEDGEPEETH: You had some early experiences with some early black people, too. I mean, some real good and some real bad, in the early days. Most of them have been good, but she did have one case where one was kind of negative. You just couldn't do anything to make it right. He just felt misfit. And then we had one couple that we just loved, and we've had them to our home a half a dozen times. Participated in parties with them and things like that, and they were just wonderful people, and we just felt so bad for them.

HEDGEPEETH: He had a bad time because they tried to buy a house after they got here and he said that they didn't show him houses like they wanted. He said that one person actually told him, "You're not going to be shown anything that you want here." I felt awful about them, because he was a really good worker and had a good attitude.

MR. HEDGEPEETH: And she was a wonderful person herself.

HEDGEPEETH: Yes, she was.

MR. HEDGEPEETH: Beautiful woman.

HEDGEPEETH: They finally took a job somewhere else, just mainly because of that. I can't remember now where they went.

WRIGHT: Did you see the positions of women change while you were working for the Air Force? Did you see more women be able to move up through management positions?

HEDGEPEETH: Yes, I did. I don't think it's perfect yet, but yes, I did see that things were changing for women. It is better but it still—not too long ago, Johnny was retired and I was still working. He went to the bank most of the time because I was at work, but one day I needed to go and get a check cashed for something or other and I went into the bank. The person I talked to at the bank was a woman—this made it worse even, you know. I wrote my check and I went up to cash it and this woman looked at me and she said, "Are you able to write checks from your husband's account?"

I said, "My husband's account? It's our combined account. Of course I'm able to write a check on this account." And she actually went and checked on that before she gave me my money. I told him later, if it had been a man, I would have thought little of it, but a woman. And this must have been in the 1990s. I tell you, I just can't understand how some people—my name was right on the account, but "on your husband's account."

MR. HEDGEPEETH: I told you I went over and told her to do that.

HEDGEPEETH: Yes, he told me that.

MR. HEDGEPEETH: Just to make sure she doesn't give her too much.

WRIGHT: Got to keep some humor in it.

HEDGEPEETH: Yes, that's right.

WRIGHT: Something to talk about. Well, we have certainly enjoyed learning about the aspects of your life that certainly have shaped it, and shaped so many lives as well.

HEDGEPEETH: Thank you for letting me participate in your program.

WRIGHT: We've enjoyed it.

MR. HEDGEPEETH: It's certainly interesting. We think it's so funny because so many people have gone now that are not available to talk to about different things, and we feel real fortunate at our ages that we feel as healthy as we are, you know what I mean? We've slowed down a little bit, but pretty much do as we always have done. When we get ready to go somewhere, we do it and just enjoy it as much as we ever did.

HEDGEPEETH: We're both seventy-six now. We used to think that people [our age] were old, and we don't feel old.

WRIGHT: We thank you for taking time out of that busy life to make time for us this morning.

HEDGEPEETH: Thank you.

WRIGHT: Thank you and we look forward to sending you the materials for you to review and enjoy it for yourself.

HEDGEPEETH: Well, thank you.

[End of interview]

