

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

ORAL HISTORY TRANSCRIPT

BETTY S. LOVE
INTERVIEWED BY REBECCA WRIGHT
PALMDALE, CALIFORNIA – 6 MAY 2002

WRIGHT: Today is May 6, 2002. This interview with Betty Love is being conducted by Rebecca Wright for the NASA [National Aeronautics and Space Administration] Headquarters History Office Herstory Project. The interview is being held at Palmdale, California.

We thank you again for taking time for this project, to discuss your experiences while you were employed with the [Dryden] Flight Research Center in California. We would like for you to begin today by telling us some brief background information about yourself.

LOVE: ...I was born in Pasadena, California, and in 1930, when I was eight years old, my parents moved to Antelope Valley, and I [have] lived [in the valley except] for ... twenty-five years that I was ... in San Diego or [for three years in] Glendale, both of them in California....

WRIGHT: What type of interests did you have when you were growing up that led to what educational background that you had?

LOVE: ...We lived on a farm [on the east side of the valley] where Edwards Air Force Base [California] airplanes [flew] over [our home]. [Also I] had a friend who was ... a hostess, [on an airlines] as they [were called] then, rather than a steward or a stewardess. ... I decided I wanted to be ... [an airline hostess]. ...When I started high school, I took a lot of science and [associated studies], because during that time period you had to be a registered nurse to be a

hostess. ... So that was my goal, and all the way through high school and through junior college, that was what I studied, ... [subjects that would allow me to enter a] nursing school.

At that time, Los Angeles County Hospital had one of the better nursing schools. So after graduating from junior college, or before, you put in your application ... [to be accepted], I had [taken biology, chemistry, nutrition, and physics], some math courses.... So I had a pretty good science background. I think it was two weeks before I was to ... start nursing [school], plans changed. So I never got there.

That was what I did with my education. I graduated from Antelope Valley Junior College with an A.A. [Associate in Arts] in science background, and that was the extent of my education. In fact, that was pretty far to go [for a girl] during that time period, because normally you either were a teacher or a nurse or a secretary, and a lot of the gals from school ... just became secretaries. I didn't want to be a secretary.

WRIGHT: Were you able to find a job with your educational background?

LOVE: I never went to work. I became a mother and was a stay-at-home mom and raised the [two children] until they [started] school....

WRIGHT: Well, I'm sure you were very busy with children. That is always a full-time job.

LOVE: ...By the time you're a PTA [Parent Teacher Association] president and [work with the teachers and parents your day is gone]. There weren't soccer moms then, and there weren't [any] Little Leagues, but there were other kinds of things that the kids did. So you worked with

them, and I worked with the school. I was at school a lot, too, doing mimeographing and stuff like that [for the teachers and the office], just to keep busy, just like I'm doing now [in the history office].

WRIGHT: When did you become associated with the Flight Research Center?

LOVE: In January of 19[52].... [I] had a friend who raised turkeys, but he was also an electronics person, and he worked at [Dryden] FRC [Flight Research Center, California], and he coaxed my husband at that time to go out and get a job because they needed someone [with his talent for a] ... position. ...He went out [and applied, interviewed and was accepted]. ... [I was a friend of this fellows wife and worked with her in PTA and other school functions.] One night we were having dinner, and he said, "Betty, they need computers out there, and you would qualify. Why don't you go out and get yourself a job."

I said, "What for?"

He says, "Oh, come on."

So I went out and ... interviewed. I think Roxie [Roxanah B. Yancey] interviewed me, who was head of the computers. I didn't have a math degree, and mathematicians were mostly what they were looking for, but she said, "Well, you've had some math, and you've got quite a bit of science. We'll try it."

...I went to work in January of 1952, and [NACA (National Advisory Committee for Aeronautics) was] at the south base, and [I was a] computer, and computers, of course, [reduced] data.

WRIGHT: Did you have any idea of what that meant when your [friend] said “They need computers”?

LOVE: Oh, yes. [The friend had explained what the ladies did].

WRIGHT: Had you ever met or did you know any other women at that time that had that job?

LOVE: No. ... I'd had that whole year of knowing what [NACA was] doing out there and knew what the girls in the office were doing and things like that, because ... the friend would report back. So it sounded like it'd be an [interesting] job, [which] was my first [job] for pay. ... [NACA was at Muroc on the edge of Rosamond drylake bed.]

...May I read [what I had written for you]?

WRIGHT: Sure.

LOVE: It says, “Working as a computer, one would reduce the data from research flights by calculations, convert the inches of deflection on a record or film to engineering units, and this was done by using a scale with the film over the light box and just recording it and calibrating it, and you would come out with engineering units.”

Anyone with any kind of a idea of math—I think it could have been even high school math—could have done what they really wanted done, except for maybe those that were doing loads work. All of the ladies that did the loads were mathematicians, and the rest of the ladies,

and there were maybe about fourteen of us in the office, most of them had college degrees in something other than math, but were doing the same work that I was.

The data sheets were all set up. The requests for the data was given to ... Roxanah Yancey [by the engineers] and she would fill out a sheet that would tell you what ... [information was needed and that] you were going to work up. You were to work up accelerations or altitude and air speed. The sheets would be labeled "Column 1," 2, 3, 4, and 5, on up, and in each column it would tell you what you were supposed to put in there. The first column, of course, was always the reading off of the film. After that, if you followed her instructions, when you got to the end, you had your engineering units. And if you were reading an air speed and altitude record, you would continue by calculating the columns, as the heading directed, and you would look up the numbers from tables, or you would look them up from calibrations and keep on multiplying, subtracting, or doing whatever you were supposed to until you got your final engineering unit.

The only one that was a long process was air speed and altitude. The roll angles and the pitch angles, the accelerations, were all maybe three columns at the most. Maybe you might have a fourth column, depending on what the engineer was asking for. And when you got completed with them, you had to have them checked. So you would find one of the other ladies that wasn't doing anything other than more data, and she would come and spot-check you, and then you had to spot-check also, and you would maybe check five on a page [that] had thirty answers....

I found that the trace made a pattern on the film. Your data also had to follow that, and if it had a spike in it, ... say, you were working with Gs that were running .9, .8, and all at once you had one that was 5-something, well, you'd go back and know you'd calculated [incorrectly] or

misplaced a decimal or done something wrong. You could check yourself pretty careful[ly], but ... [one could also miss an error, so double checking was good].

Anyhow, when you got finished with your data request, you gave it back to Roxie. You did not have any contact with the engineer. You didn't know what you were doing. You knew what plane you were working on and you knew what units you were after, but you didn't have any contact with the engineering [so didn't really have a feel for your work].

I mentioned something the other day [to Mike Gorn], and [he] said, "...Tell Rebecca," ... that our [computers] office was like a library. Only the hum of the Friedan calculators was the noise that you heard. No one spoke. You weren't supposed to visit with your neighbor. You were supposed to keep your work right in front of you and do that. You weren't to go down and visit with the engineers.

You were allowed out of the office two times, once in the morning to go get coffee, which was out in the hangar, and you went in twos, and you were expected to go get your coffee and come right back. You weren't to talk to anyone in the hangar. Well, that was hard for me, because a lot of guys that worked out there I had gone to school with. So we'd stop and chitter-chat, and the other girl would poke me and say, "Hey, we're not supposed to do that."

And then, of course, you could go to the restroom, but you weren't supposed to dilly-dally. You were supposed to go and come right back, and you were to tell Roxie where you were going, and I don't think it was because she was hard about it..., like, "I'm going to rule you right under my thumb." I think it was because she was being pressured to produce the data to get back to the engineers after a flight, and so she controlled all of the gals in there the same.

But it was, it was very, very quiet. And, of course, we didn't have cafeterias, so you ate lunch in your room at your desk, and you brought a book to read, because you couldn't talk.

WRIGHT: Not even during the lunch break?

LOVE: If you did, it was to be quiet because maybe someone was still trying to finish up something that was needed right away. So it was a quiet place to work, and it induced you to get your work done. But other than to read film when I first got there—oh, I'd been there, how long had I been there? About six months, I guess, and Roxie called me up to her desk, and I thought, "Ooh, now what did I do?"

She said, "Betty," and she had some sheets of paper. She said, "Will you take this posterboard and print one page on each one of these posterboards?" She didn't tell me why or anything.

And I took them, and, of course, not being there very long, some of the terminology for the instrumentation and everything, I didn't know what it was. So I printed the boards, the posterboard-type for her.

...Later on I found out they were having a conference and a meeting, and they were using them on the displays. Why I was chosen, I don't have the slightest idea, ... maybe some of the older gals should have been doing that instead of me. But I did it. Don't ask me why.

WRIGHT: You mentioned that you knew what plane you were working on, but you didn't ever talk to the engineers. Were you working on a different plane every day?

LOVE: Oh, you might work on two airplanes a day. If you came in in the morning and you had started a project the afternoon before, you had given it to Roxie before you went home, and then

you would pick it up from her desk and take it and ... finish it. Up in the top of the paper, it would say the X-3, the X-4, X-1 number 2. It would also tell you what instrument [recorded] ... [on the film] you were using.... It would have the corrections marked in red for you, so that you knew just exactly what correction, which came from the pre- and the post-flight calibrations, before the airplane took off and when the airplane came back. If there was a discrepancy in the instrument, then that was your correction that you either added or subtracted to your film reading, and you read from a reference to a trace, and you read in inches, down to 005—.005, five, I guess it was.

Then when you turned that in, maybe you'd finish it about ten o'clock and turn[ed] it in, she'd give you another set of data to do, and it might be [on] a different airplane. [The request was for] whatever ... experimental airplanes [were flying]. [When I was there], ...they were flying the X-1 and the Phase II's ..., and we weren't allowed to go out and look at the airplanes either, so [one] didn't.

Our [room] was right at the edge [of the taxi way] where they taxied the airplanes off the runway. ...There were ...windows on ...[the south end of the building covered with Venetian blinds that were most always closed]. [Once in a while, we could]... peek through the blinds.... ...[The ladies that sat next to the windows would] look ... at Roxie ... before they would ... [peek at what was coming in and give the rest of us the "hi-sign" to come look too. Roxie must have known what was going on.]

Then, of course, once the data was taken off of that [flight], why, the engineers wanted their data yesterday, like always. Actually, I enjoyed it. I found the work fascinating. I would have liked to have asked "Why?" lots of times. What are we doing this for? How's it going to be used? What's it going to help? But you didn't have that opportunity.

Our building—I noticed that you asked what kind of condition our building was in. They were a series of Dallas huts put together to form a long building.¹ Maybe the Air Force had long buildings, but I don't know what they were called. But they were like the little squared Dallas huts, plywood on the outside and a metal torsion bar from one corner down from the ceiling to the floor. My desk sat beside one of those torsion bars, and I didn't have a window. I was on the windowless side of the room. The long hall that came up to the middle, we were across the end of the building, like a "T." We were the top on the "T," and the hall went to the front door, and the engineering offices were on either side of that hall. If you walked down the hall, even to go to the ladies' restroom, you'd hear them laughing and joking and having a good time, and you'd think, "How come?" [Laughs] But, anyhow.

... Walt [Walter C.] Williams, who was the chief [of the National Advisory Committee for Aeronautics (NACA) Muroc Flight Test Unit], and that was what he was called at that time, and De E. Beeler, who was head of engineering, had their offices with a secretary up in the very front. The financial and administrative offices were in a building adjoining. Our building had a breezeway, a covered breezeway, into the hangar, so you'd never had to go outside to get into the hangar, and the Coke machines and everything were all lined up in this little breezeway. Flight operations, like you were in today, the head of that was Joe Vensel, and his office was just at the other end of that little breezeway. He and his secretary had that office. So he was right near the hangar.

¹ Dallas Huts were small buildings constructed by and used by the armed forces. They measured 20' by 20' and were built with plywood. For more information see: "US Marine Corps Outlying Field, Greenville, NC," US Marine Corps VMD-354 Homepage, Online, <http://www.usmarinecorp svmd-354.com/greenvillenc.html> (Last Updated n.d.; Accessed 19 June 2002); "A Cal Poly Pomona Chronology," Cal Poly Pomona Homepage, Online, <http://www.csupomona.edu/~library/LibraryInfo/special/Chronology/account.html> (Last Updated 19 April 2002; Accessed 19 June 2002).

WRIGHT: How many computers were in your area?

LOVE: There were about ... twelve or fourteen computers, and, like I said, the engineers would come in and talk to Roxie. They might even sit on one of the desks in the middle of the room and talk to her. All of us could hear [these conversations]. But there were no male computers. They were all ladies, and most of them were—I would say 50 percent of them were Air Force wives, and so they came and left within a short period of time....

WRIGHT: Did Roxie ever have meetings with you as a group, or was everything done on the individual basis when she communicated information to you? I think we call them today staff meetings or group meetings or hands-on meetings. But she never had—

LOVE: Never a meeting. My lands, no. [Laughs] No, there were never any meetings. She probably attended meetings at Walt Williams' direction, ... because she was head of that unit, so she would go and report things. I've seen photographs of meetings, and she's always at those meetings. And Mary [V.] Little [Kuhl], I always considered her [an] assistant, because if Roxie wasn't able to be there, Mary would be there to kind of take her place. The engineers would go see Mary rather than Roxie. But Mary tells me that wasn't so, so I'm not real sure how the pecking order was.

WRIGHT: Was Roxanah the only woman that you know of on the base that had that type of position, whatever that position was? Were there any other women?

LOVE: On the whole base?

WRIGHT: Yes, that were working.

LOVE: Not in computing. There was a woman draftsman that had a group under her, that would probably be comparable. But as far as research airplanes, no, and, of course, there weren't the big-frame computers, so we were the big-frame computers.

WRIGHT: Now, every day when you'd get ready to leave, you mentioned you turned your work back in.

LOVE: Yes.

WRIGHT: So nothing was ever left on your desk.

LOVE: Oh, no. Our desks were clean. Our Friedans were covered, because there might be a quarter-inch of dirt when you came back, and our light boxes were always put away in the bottom of our desks in our drawers. But you didn't keep anything. You kept your supplies, your pencils, and your scales. You had a twelve-inch scale, a six-inch scale, and you had several French curves that were assigned to you when you came to work, and those you kept in your desk, and a triangle for straight lines and things like that. But, no, we didn't keep our work in the desk; it was given back to Roxie. And I suppose, looking back on it now, not then, I didn't know, but looking back at it later, it probably was a good thing to do because if the engineers

needed that work, why, then she might get a couple of the girls that lived in the dorm to stay and do the work. So it was probably done for a purpose, and it was a good reason. But we always have to look at it backwards to make sure.

WRIGHT: There were women that lived in the dorm that had come out to work at Dryden, and then, of course, there were women like you that were there. Their husbands worked out there.

LOVE: And they lived on the base, too. They lived in what was called waring housing, that the Air Force built for [the] servicemen. ... They had started to build a few homes in Lancaster. So some of them came from Lancaster, but not very many of them, and, of course, I didn't live in Lancaster. I lived in Littlerock. So I drove from Littlerock in a car pool.

WRIGHT: Were you one of the few that commuted in every day to your group of computers, and did you commute with your husband?

LOVE: Yes. We had car pools. There were people from that area that would come in, and they would—in fact, most everybody got there by car pools, even those that came from Mojave or Tehachapi or Lancaster, Palmdale area. They all came in car pools, and there was usually five or six in a car pool, depending on the size of your car. But most of the cars in that time period would hold three in the front and three in the back. They [didn't have] bucket seats [in the front seats].

WRIGHT: Did the women ever drive the car pools, or was it always the men? Just curious.

LOVE: Later on, the women did, because I did. As the place kind of grew—well, I would say that until we moved over into our new location, most of the women lived right there on base with their husbands or lived in the dorm. The girls lived in the dorm, because a lot of them were single [and no other housing was available].

WRIGHT: When did your duties change? How long did you do what you were doing when you were first hired?

LOVE: Maybe after I'd been there—let's see, '52—in late '53, I started to get data that had special little notes, and Roxie would give it to me, and I was the only one doing that kind of data, and rather than read a trace from the reference up to the trace, I was reading the amplitude of the record and counting the frequencies that it might spike. I know that's hard to visualize, but if you took a pencil and just went zigzag up and down, and the film had time lines on it, so you could count how many frequencies per second or whatever, and I found myself doing some of that, but I still didn't know why, because I still wasn't able to talk to the engineer. Well, that went on for just a real short period, and I couldn't tell you, two or three months or something like that. I still did the other work as needed, too. But whenever there was any of this, why, Roxie gave it to me.

Well, then—I should back up a minute, I guess. Whenever you did a sheet of data, you put your initials on it so that it was known who had done the workup. Pretty soon I found myself going down the hall and having one of the engineers do this [demonstrates], say, "Come on in." I knew I wasn't supposed to, so I'd stand in the door, and I was working for him. I didn't know

this, and why I was chosen to do it, I cannot tell you, because other than there was two other ladies in there that I felt were older than I was, but I was older than the majority of them. The majority of them were real young, weren't married. I was in my thirties. I was thirty-two or thirty-three, I think, or something like that. So why I got chosen to do it, I have no idea.

[Thomas F. Baker] worked in structures, what they called [Aero] Structures [Branch], and he did all the vibration and flutter and buffet work on the experimental aircraft. So I helped him off and on, but still did everything like everybody else, until we moved in 1954. I worked just a short time in the computers [at our new location]. Roxie told me one morning when I came to work, she said, "Your desk has been moved."

And I thought, "Ooh, now what did I do?"

She said, "It's down in Tom's office."

And I said, "Oh?"

She said, "Well, Tom has requested that you be in his office." So my Friedan, everything that I'd had as a computer, went down into his office, and there were four engineers in the office beside him. Well, there were three, counting him. But they were called a structures group, and from then on I worked with him, and my title changed from a computer to an aeronautical research engineering technician. And how that happened, I can't answer you.

WRIGHT: Were you under Roxanah that way?

LOVE: No, I [worked] under [Tom who reported to Mr. Beeler].

WRIGHT: So that was the end of your time with her.

LOVE: With the computers, yes. I still worked with her, I mean, if I ran into something I didn't know. The only difference it really meant, I could ask why and what was I doing, and I was told and I was shown. I got taken down and shown the airplanes and what we were studying. If there was a panel on the side of an airplane that vibrated in flight, I was shown that panel, and if it had cracked, why, I was explained how it cracked. So I was in seventh heaven. I knew what I was going to be doing.

WRIGHT: Do you believe the information you were getting now could benefit your whole understanding of what you were doing?

LOVE: Of what I'm doing now?

WRIGHT: No, what you were doing then. Did it help you do your job?

LOVE: Oh, yes. In fact, I enjoyed what I was doing, but it made more interesting, and it was just a fun time. It really was, and I learned a lot. There was a time the boss had gotten himself into an auto accident, and he had done all the boundary for a buffet, the buffet boundaries, and I had worked with him, and he had shown me how he had done them, and how he had selected the right point and everything, and he sometimes would let me, but he was always there to check on it. Well, this one particular time he wasn't [there], and they wanted a buffet boundary on the X-3 airplane, and the engineer who was in charge of the X-3 came down and he said, "Betty, you've worked with Tom. Can you do ... a buffet boundary?"

And I thought, “Oooh.” But I did it, and I gave it to him, and I said, “You’re not really going to use it until Tom sees it, are you?”

And he said, “Well,” he said, “we do need it.”

And I said, “Okay.” I said, “It’s to the best of my knowledge.”

When Tom came back, ... I showed it to him, and he said, “You did a good job.” He says, “Quit worrying.” But he and I worked together very, very well, and I worked with the other engineers and reduced their data also.

But what I did find, if Tom couldn’t keep me busy, and I don’t think I worked any faster than anybody else, but I was steady and just got it done, I guess, so he would farm me out. He’d say, “Well, So-and-so down the hall needs some help. They’re not getting his data out like he would like it.” So I would go get it and bring it back to my desk, and I’d do that data for him.

Then pretty soon I found out, well, he had farmed me out to flight ops [operations], like where you were today, and during that time period everything was transcribed onto a—I don’t know what they called them, but it’s a continuous tape, and they were maybe four inches wide, and when they were folded together or when they were in the box, they were maybe six to seven inches long, and everything the pilot said, everything anyone at the control room said, it was recorded on this tape, and they had to be transcribed. So I found myself sometimes down there transcribing those tapes.

Then shortly after that, because we ran into, well, the higher speeds ..., higher altitudes, we ran into more difficulties with flutter or vibration that would occur on the airplane. So in order to find that spot [on the records], I was delegated to go down and sit in the control room, and when the pilot reported, “There’s a little buffet here” or, “I hear something,” I would record the time and what he said, so that when we got the film the next day, why, I could go in

and find it, and that way we knew what the pilot said. We didn't have to go ask him again or anything. And that made the job more interesting because that added another factor of "Why? Why do you do all of this?"

Of course, it was to see that [when] the next generation of airplanes were built ... that they wouldn't [have these same problems]. But the next generation of airplanes went faster and went higher, so they had just about the same kind of problems, but all fixable. But I enjoyed that.

One of the things that Mr. Beeler called me up and asked me to do—and here, again, I don't know, because he had a whole Center to pull from—would I help Mr. Fiskan, who was our illustrator at the time, make a movie. I said, "I don't know anything about film. I don't know anything about [making movies]."

And he said, "You can learn."

...Mr. Fiskan, on his spare time, wrote scripts for TV shows, and one of them that he wrote was *Bonanza*, and he knew all the characters and everything, and he knew just how you were supposed to do it. So we did a story board, which I guess all movies do, but I didn't know this, which puts down how long or the length in minutes or seconds that you want to show [a scene], and the words that you might use with it.

Then I went out and found the film in our photo lab, our movie film, and after we had spliced all these [short] copies of film together and had this story board and the timing down, Mr. Fiskan said, "Now it's time to put it together for real and to have a narrator do the talk over the top of the picture so that you have a talking picture."

To do that, we had to use Lookout Mountain, which was the depository—is that how you want to call it?—for all of the film, for the movies, and the Air Force and all of the military. It

was underground. There were about five, six stories and they were all underground, and a parking lot was all you saw on top of the ground. You didn't even know there was a building there. So I got to go do that. Then no one would believe there was such place as Lookout Mountain. But that was an interesting and fun project, and it was called *Pathway to the Stars*, and what it was, was a day with Joe [Joseph A.] Walker, who was a pilot on the X-15.

WRIGHT: What year was that? Do you remember approximately?

LOVE: 1966, maybe? '66? '65?

WRIGHT: That's great. Do you have a copy of the film now?

LOVE: Yes, and I had them put it on a VCR [videocassette recorder] for me, but it isn't as nice as the film. And it was black and white because they didn't have much color then. But that was a fun-type project.

WRIGHT: And when did it debut? Did the Center people get to see it?

LOVE: Oh, yes. They showed it to the Center people. I'm afraid I'm the type that loves to do work behind the scenes, and I don't want anything, so my name isn't on it anyplace. Neither is Mr. Fiskan's. The only name on it anyplace is Joe Walker's and the actor who narrated it, and I can't even remember his name without looking. But it was a project that was different than the

research airplanes. But I found I got to do a lot of that kind of stuff, and I didn't do anything special for any of that, but it just worked that way.

WRIGHT: During all this time, did you still have the same title?

LOVE: Yes.

WRIGHT: Were you still in the same office with your desk being in there as well?

LOVE: Yes, and then Tom left and went to Houston [Texas]. In fact, he went with Walt Williams when Walt went down, and I'm not real sure—he was one of the boys, the engineering fellows, that Walt took with him from FRC.

Then I had a series of supervisors, ... but [I was] still doing structure work [on research aircraft]. ... So I stayed in structures right up until I retired.

WRIGHT: In what year did you retire?

LOVE: ... 1974, in May of 1974. I enjoyed what I did. I still do.

WRIGHT: During those twenty years or so that you were there, what other types of changes or, for instance, did you see any more rooms of women being computers? How did that change? How were women starting to become more of the work force while you were out there?

LOVE: Oh, I think the office of the computers started to change when they got new [computer] equipment. ...[One of the new pieces was] a telereader ... [that] punch[ed data into] cards.... [One] could roll the film into this machine, and [with the] crosshairs vertically and horizontally, ... you would zero in on your reference point, just the once, and then after that you didn't have to go back unless you made a boo-boo. You would cross the hairs over the trace and punch a foot pedal [that would activate another machine that would] punch the card. ... [The cards would be given] to the mainframe operators, and they would, in turn, have [program] cards ... [from] the computers.... I'm not sure how [the process] worked, because I didn't do it, but there was a [set of] program [cards] ... [for each] engineering unit... [that was requested]. ... [A print-out in engineering units was received back by the requesting person. (By this time two male computers had been added to the staff.)]

So I think the computing section changed quite drastically during that time period. ... [During this time period Roxie left the computers and became an engineer with the Flight Dynamics Branch, Systems Analysis Section. Another computer received a title similar to mine and worked in the Flight Mechanics Branch, working with airspeed calculations and associated data.] That kind of ... [changed the whole computer section]. Mary Little assumed what was left [of the section], and ... all the mainframe, ...calibrations, [and] everything... [concerning data reduction]. ...[It was during this time period when] Harriet [J. DeVries Stephenson Smith] came back as a engineer. ... Bertha [M. Ryan] came in shortly after that as a ... lady engineer. [NASA now] had two. [The first lady engineer was Joan Childs Dahlan, who carried the title of computer, and was working at NACA when I came to work. She left before the move in 1954.]

Before Bertha came, we had two ladies come in that were engineers, but they didn't stay very long. They didn't like the way the fellows treated them, and since I wasn't around, I don't

know what all of that was about. I always felt that, hey, you treat them right, they're going to treat you right. If you're going to be snippy with them and want to pull your female [attitude], what do I want to say? Well, being a gal, you're just supposed to have privileges over the male, and that didn't work. You have to be one of them, and you have to have fun with them, and you have to work hard with them. ...

But Harriet was there, and then later on ... Carol [A. Bauer Reukauf] that we met today was there, and Jenny [Baer-Riedhart] who is head of PACE [Public Affairs, Commercialization, and Education Office], came in as an engineer and worked her way up to where she is now head of PACE. Most of the girls, when I left, were either secretaries, who worked in finance, [or] worked in administration. There were several girls that had top jobs in those areas. But there weren't any mechanics. There weren't any shop people. Oh, yes, there was. There was one girl in instrumentation, and she was well liked by her crew, and she treated them nice. And then there were maybe four engineering women, and, of course, now there's a lot more out there, and they're not all secretaries. In fact, do we even have any computers? We don't even have any computers anymore.

WRIGHT: Tell me about the dress code or the expectations of how women were supposed to act. You mentioned about women just getting along with the men, but were the women allowed in the hangars when the men were working? I know the computers, as you mentioned, were not. But were other women—

LOVE: No, they were not. In fact, Walt Williams frowned on it. I'm not so sure that, not knowing them and not knowing them socially or anything like that, I have no idea of what their

feelings were, as far as women were concerned, but I do know that they felt that women belonged where they were working and they should stay there; there was no need for them to know any part of the mechanical part of it at all. And I noticed in Harriet's [interview] about the serving the dinner, and I thought that was cute. I didn't have to do that either, but I wasn't asked.
[Laughs]

The [women] just weren't welcome out in the hangars. I think that both [Directors] felt that women out there would distract the guys, and the guys wouldn't get their work done, or their minds would wander, and they wouldn't be concentrating on the safety of the airplanes and things like that. Yet here again, I found I'd be given a work order and go give it to so-and-so. I went any place and every place. I really did and never thought a thing about it, because I'd been asked to do it, so why not do it? I did, and I knew most everybody. There were some of the fellows in the shops I didn't know [very well] because I didn't happen to come into contact with them. But, yes, I did. I was kind of free-rein. I wasn't kept from any place.

WRIGHT: You went any place and every place, and when you did it, you went in a skirt and a pair of heels, walked all over the Flight Center?

LOVE: Yes.

WRIGHT: Did you ever move into wearing slacks or any other casual attire before you left there?

LOVE: Yes, once. Leta Holleman, who was head of the report section, came in [one morning in slacks]. She was the first one I had ever seen wear slacks, and she was just darling in them, the

way they fit and everything, and it wasn't a pantsuit of sorts, because she had a pretty blouse on with ... [them]. Well, I did a lot of sewing, and I thought, "Hmm." So I made a skirt and a vest and a pair of pants that all went together, or you could mix and match, and I wore the skirt and the vest quite a bit to work, and one day I mentioned to Leta, "You know, I have a pair of pants that match this, but I don't think I would wear them to work."

She said, "Why not?"

So about this time one of the secretaries up front wore a pantsuit to work, and I thought, well, if she can do it, then maybe I could. So I wore the pants. I think I wore them maybe three times, and that was all. [Laughter] But the rest of the Center, after I left, sometime or other, converted, and you saw a lot of pretty pantsuits and things.

But today I—well, I'll tell you an incident that happened, I guess it was about two weeks ago. I was coming in, and there were five or six gentleman in suits, dark suits, white shirts, and ties, and that kind of caught my eye because you don't see that around there, and they wore the big orange visitor's badges. And there was a gal walking towards them to meet them, and I looked at her and kind of shook my head and went on in the building. When I was up and about at about two o'clock in the afternoon, these gentleman were sitting in a conference room right at the foot of the stairs, and there were two gals in there, and I stopped and I looked because I thought, no, that can't be. They were in Levis. They were in these big T-shirts with writing or a picture on them, and conversing with these gentlemen. I thought, well, maybe what they're talking about is important and ... the way they look is not important. Of course, everybody wears—or a lot of them wear Nike shoes, types, and I thought, no, it isn't a good impression for NASA, I don't think. But a lot of the girls around there do not dress like [business people]—and it could be my generation that I object so strongly. But there are some that you never see in

anything but pants, and some of them, they're not pantsuits. They're khakis or Levis or some of those kind of things.

And I notice that some of the fellows that have been there for a long time, they wear slacks and a shirt, or they're neat and tidy. They might not have a tie, but I bet there's a tie in their office, because when we worked there, the guys wore suits and they wore slacks and sports jackets. They always had a tie. But the sport jacket might in the office to slip on, you know, if company came, or if they had to go up in the front office. I don't know what they look like now when they go to the front office. [Laughs]

WRIGHT: And this was a time before we had central air and heat in some of the buildings.

LOVE: Yes.

WRIGHT: Tell me how you kept cool in these hot summers out on the base.

LOVE: The fellows wore short-sleeved white shirts, and the material wasn't as heavy as the long-sleeved. They always had a tie, but they were string ties in those days. And us gals would wear dresses which were lightweight cottons and things. There were a lot of materials that you could use. Didn't have any trouble.

WRIGHT: And lots of fans?

LOVE: No. We never had any fans.

WRIGHT: No? Not any fans? No?

LOVE: No. No.

WRIGHT: Nothing?

LOVE: No.

WRIGHT: During the winter, did you have extra things to keep you warm?

LOVE: A coat. You wore a coat, and during that time period, snoods were in. Do you know what a snood is? A snood was a heavy-knit, made out of string, like a hairnet, only they were colors, and you would wear them so the wind wouldn't blow your hair to pieces before you got into the building, and then when you got in the building at your desk, you took them off. Some of them had satin ribbons to tie them on with. Some had elastic in them that you could wear. Some of the girls didn't wear any and then would do their hair, but during that time period, a lot of them wore bouffants, back-combed and sprayed. So the hairstyle was different, too, and not what it is today. Maybe [today styles are] more comfortable. I don't know. [Laughs]

WRIGHT: Well, I've never heard of those. That's interesting in itself.

LOVE: But they were called snoods, and they were S-N-O-O-D-S. I think was how they spelled them. But they kept your hair in place if you had to go out. But another thing we had, we were all in one building. The cafeteria was right in the building with us. In fact, [the History,] our office today [is] in the cafeteria, in the old cafeteria. But now I was talking to one of the gals that I know out there today, and she said it's a half-mile walk to walk from the DAF [Data Analysis Facility] Building, which is one of the outer-located buildings, to the photo lab, which is in the main building, and back again. And not everybody has a golf cart. Not everybody has a bicycle to ride in. You walk.

WRIGHT: In the midst of all the work that you were doing, some of your contributions were released in publication. Share how this occurred and how your participation was included in that work.

LOVE: Here, again, I'm not sure how I was lucky. I've had a lot of things that I just consider luck, or being in the right place at the right time. I have no idea. But what would usually happen was that the report would be started, and "We need to show some of these things in data. Now, we want data that will show these vibrations. We want data that will show a buffet boundary. We want data." I worked with Jim M. McKay, who did all of the landing loads on the X-15. "We want to show the landing loads. We want to show where the airplane sat down and how long before the nose gear rotated over. We want to show some of the—what we're talking about."

So it was up to Betty to find the film, to find where these things were that they wanted to show, and reduce it, plot it, do everything [for a final plot]. The data was my part of the

contribution, mostly. I didn't do the final figures; the final figures went to editorial, and they did the final figures along with the final text. But it was my responsibility to get the figures for the reports.

So consequently, they added my name to it, which made it nice, and I'm finding something now into today's part, that—well, I should back up. When I retired, they put all my reports into a book and bound them in a hard cover, then printed the name and *NASA Reports* on the outside, and presented it to me at retirement. So I thought that was pretty nice. Most all the reports are in there except for two.

But what I'm finding today—I guess I'll have to back up. Like, Mr. Beeler used to ask me to do the film. Mr. [Paul F.] Bikle [Director of Dryden FRC between 1959 and 1971] said, "I want a log kept on the XB-70." Well, I had already started one on the X-15, and Dr. [Richard P.] Hallion used that in his book. But in his flights of—what was it? [*On the Frontier*]

WRIGHT: Discovery?

LOVE: No. That's [Lane E.] Wallace's book. Anyhow, he used it in one of his books and gives me credit for it, which I was surprised. But Dennis [R.] Jenkins, who is an engineer and has written a book—I can show it to you later, a XB-70 book that is being sold on the market—I can't believe this, [and] the X-15 book [that] is coming out [soon], [both works referenced] my name.... So I'm finding that I'm being referenced and I can't stay in the background. [Laughs] But it's kind of nice to know that something you had done for another reason is now being used to support some of the things that are being written about the projects.

WRIGHT: Share with us a little bit more about what you were talking about keeping a log. You said you had kept a log on the X-15. Tell us about that. What does that mean?

LOVE: Each time there was a flight, or each time there was an abort, I would record [the flight number]—there was a sequencing that we used to report the flight number, and I won't go into that, but I would keep a log of the date, the flight, the pilot, the max Mach number ..., the max altitude, and there were times when we kept the max angle of attack that he went to, because it was important for that particular project. But we didn't keep track of which [mothership] dropped [which research plane]. Of the [two] B-52s, that we had ... we didn't keep track of which one did [the drop]. I didn't, and I didn't keep track of who flew the B-52. So I had to look all that up for Dennis Jenkins. So now we have who was NASA 1, who was the panel operator in the B-52, who flew the B-52, and which B-52 dropped which X-15. But I kept a flight log of each flight, each abort, and when it aborted, why it aborted, and if it flew, if they had a problem, what was the problem. And I have one I could show you.

WRIGHT: Was this task something you came up with your own, as just a smart thing to do at the time?

LOVE: Well, it fell in line with something else that I did. It seemed like when we were doing all of the X Series of airplanes, the engineers were always looking for a three-view drawing[s]. They were always looking for a round-the-clock set of photos of the airplane, where you took the pictures or the photographs from different angles. And they were always looking for a table of

dimensions of what was what, and of the maximums and the minimums and so on. And after looking them up two or three times, I thought, “This is ridiculous.”

So I ended up starting a book that had that information in a three-ring binder, and I ended up with three [binders] of them before I got through, three two-inch binders, and when I got ready to leave, “Are you going to leave those? Are you going to leave those?” and I brought them home, because when the computers came in, the mainframe computers and the desk computers and all of that, there’s no need for those books anymore because they’re in the web or on the web now, on NASA’s DFRC [Dryden Flight Research Center]. So there’s no need for the book[s]. But I have them here at home. I did take them back and let them make any copies they needed to, but I brought them back home, and my son wants them.

WRIGHT: Quite a collection of history while history was being made.

LOVE: Yes, and that was why I did it, because if I went to work for one engineer, “Well, Betty, on the X-4, can you find this for me?” Or if I worked for somebody else, “That D-5582 was such. Can you find that?” Well, actually I was a gofer, I guess you might say. “Go for this. Go for that.” But I enjoyed it.

And you were talking today about the four o’clock bell.

WRIGHT: Share with me about how the time worked out at Dryden.

LOVE: You went to work at seven-thirty in the morning, and when the bell rang at seven-thirty in the morning, you should have been down to the cafeteria, got your coffee, brought it back to

your desk. You should be at your desk ready to work. You shouldn't be walking in from the parking lot. And if you were caught too many times, you were told about it.

And at four o'clock you should be at your desk, putting things away until the bell rang. You shouldn't be leaving the building before four o'clock. That was get-off time.

Me, if I'd get interested in something, I would forget, and when the bell went off, here my desk would just be full of stuff, and I'd have to put it away. Well, the fellows in my car pool were all working on the first floor. They were mechanics, and one was a model maker, and my husband was in charge of the simulator for the X-15, and they'd all get after me, because I'd come out [to the car] and they were all ready to go. The engine'd be going. If it was cold, the heater was on, and if it was warm, the air conditioning, or the windows were down so the car would be cool. "Betty, can't you get out here at four o'clock?"

Well, we got a new car pool member, and his name was Neil [A.] Armstrong, and I'd get out to the car before Neil would. So they quite harping at me and started to harp at him, and they were always all over him. "Why can't you be here at four o'clock so we can leave to go home?" So that took me off of [their list] but it was expected of you to put in [a full days work 7:30 A.M. to 4:00 P.M.]—and you were expected [to take] only a half-hour lunch. But the cafeteria was in the building, and you could go down for coffee anytime you wanted, and there was always cookies or cakes, sweet rolls, stuff like that. And during that time period, everyone smoked at their desk anyhow, so there wasn't any having to go outside like they do now to smoke. But that was so neat. I was always in the hot water because I wasn't down there in time.

WRIGHT: And what a great memory of Neil Armstrong. Other people think of other things, but it's nice that you had one special that he saved you.

LOVE: He sure did. Well, there were a lot of special memories of him.

WRIGHT: And I'm sure of other times while you were there. Would you like to share some of those, some of those special memories that you have just being at Dryden, of those years?

LOVE: I think it was a happier time than it is now, because we didn't have computers on our desk. Not every desk had a telephone. So if you wanted to talk to someone, why, it was just as easy to pick up your material and walk down the hall and walk into their office and sit down and talk to them. So you knew everybody. You talked face to face with a person, and I think you got more enjoyment out of that than you do sitting in front of a computer and you don't see a face. Maybe you don't even know the person if you met them. You might have exchanged e-mail and data with them and things like that, but you don't especially know them.

Because we got to know their families. I mean, they would talk about what their children were doing, or their wife, who belonged to WONASA, which was a Woman...[of NASA.] [They were] wives [of] husbands [that] worked out there, and the women employees could belong to it. And here again, Halloween, Christmas, Valentine's Day, well, there was always a dance and a party, and the fee was maybe two or three dollars a couple or a person. Whatever they had to pay out, they got their expenses back, ... [without a big fee] and we had a good time, and everybody got to know everybody.

Now they either have a Christmas ball or they have a picnic, and the Exchange Council—which we don't have anymore, so I don't know what happens to that, but the Exchange Council would help foot the bill, which kept the price down low. But the WONASA, as we called them,

did the parties. They were the ones who planned them and sold tickets, and they got the women out at the Center to help sell tickets and things like that, and we used to have real good times.

Like I said, I think the fact that the computers came onboard, not everybody knows everybody, and maybe we've gotten too big for that anyhow. I don't know. We're too scattered. I've heard several comments about our director; they're not all glowing comments. But it used to be that Walt was always down in the hangars to find out what was going on. Mr. Bikle was always playing cards with the guys. I don't remember women ever playing—well, they played bridge, but I mean I don't remember Mr. Bikle going and playing bridge. He played hearts and liar's poker, I guess, with dollar bills. Is that what they—I think that's what liar's poker is. He'd do it with maybe the pilots one day, or he'd go down and do it with a group of mechanics the next, or he'd go to the instrument shop another day. He wasn't cliquish that way.

Some of the employees out there now don't even know what the director looks like, except if they've gone to an all-hands meeting or something like that, which I think is sad, because Kevin [L. Peterson] is very personable. He could do those things. He knows how it was done before. He was here at the Center as a co-op, and he's now director. He knows what's happened, and I think—I'm not in a position to know exactly, but just thinking about it, I think Headquarters has changed a lot of this by demanding more paperwork, more "keep me informed"-type things, where before they used to make trips out and see for themselves. Now, here again, it's computers and paperwork. So I guess you can't blame the people. You can't blame the Center. You have to blame the way the nation has transpired and how it operates.

WRIGHT: Society certainly has changed from the time that you went out there until where you are now.

LOVE: Oh, certainly. Certainly. It's another generation, maybe two generations. So it's a different world by a long ways. So you can't say, "Well, it was better time," or, "It was a worse time," or, "This time isn't good at all." It's just people's attitudes in general, their outlook on what's happened and what's taking place, I think.

WRIGHT: What did you find to be the most challenging aspect of your career with Dryden? What part did you feel like, once you were able to accomplish this task, that you just felt such good satisfaction—

LOVE: I think that X-3 buffet boundary. [Laughter] That was a long time ago. But I think anything I did, when I accomplished it and it was done right, like the logs that I had been asked to keep. To me, that was a privilege, to ask me to do something like that, and, here again, why pick on me? I have no idea. It was like the raises. I never once asked for a raise, never asked why I didn't get one. I always had one, and I went as far as my education would allow and felt very proud of the fact that I was capable of doing that, because I wasn't a mathematician and I wasn't an engineer, had no engineering background other than what I had learned [while] there. So I did go back and take a couple of courses at the college in math, because we were doing some,—I can't say the words—statistical work, and I needed to know what I was doing. Even though the engineers helped, the fellows helped me a whole bunch, I wanted to know why we were doing it So I went and took a couple of classes and did that. After I retired, I went back to college, but not in engineering.

WRIGHT: What did you take?

LOVE: I took law. No, first, I didn't really take law. What I had to was, because it had been forty years since I had been in school, I had to go back and upgrade my A.A. in order to qualify to go in as a junior in college. But what I was taking was, I had gotten interested in land law because we had built a home and bought some property, and then discovered that the piece of property we had purchased with a fence around it wasn't our legal description. So I got busy to find out why, and I found out the whole section was incorrect.

So through the land title company—and here again, I had a ball—the land title company, the bankers, the lawyers, the surveyors, we straightened it all out. We did it by quit-claiming back and forth. Maybe it was only five feet of land, but it gave the people legal descriptions to what they had fenced, and some people came up short, some people came up a little longer, but no one seemed to complain.

So after doing that, I decided, "I'm going back to school and learn how to be a land lawyer." I didn't know what else to call them, and so I did that. When I got right ready to go to college, I'd been accepted and everything, my husband [Jim] said, "What are you going to do when you get that degree? You're not going to work," and he didn't say—he wasn't asking *me* if I was going to work. He was telling me I *wasn't* going to go to work.

And I said, "Oh?" So I quit. I didn't go any further. I didn't go on to college.

Then later when he became ill, he had Alzheimer's, and later when he became ill, I knew I was going to keep him at home. But I found out that twenty-four hours seven days a week, you can't do it and keep your sanity yourself. And there was a Alzheimer's Daycare Center in the church not too far from where we lived, and it was school to him because he [took] a lunch and

he went to school and he loved it. So he went three days a week, and I worked in an attorney's office as a paralegal, a paralegal assistant, I guess was what my title was. I enjoyed that, but I kept having trouble. The attorney kept telling me, "Betty, aircraft research is black and white. Attorney's office is gray," and I had trouble with that. But I worked there for three years, I think, and then the rest of the time I could handle [Jim]; I could take whatever came along. So that worked out real good. But that's what I did afterwards.

WRIGHT: And now you're back at Dryden, but you're on your own terms this time.

LOVE: Yes. When we had our fiftieth anniversary, [Dr. J. D.] "Dill" Hunley [Dryden FRC Historian] had asked—well, there were three of us, Harriet and Beverly [Swanson] Cothren and myself were asked to be on a women's panel and go out to Dryden and be interviewed on this panel. So I said I would go if Harriet would go. Harriet said she'd go if I'd go. So all three of us went, and we had a real good time, and we were to bring things to show what we had done as computers. I took one of my big books that I had fixed for the research airplanes, and I took some of the things that we used for the data, to reduce the data and things. So Dill came out. I had never met Dill, but Dill came up to me, and he said, "Betty, you wouldn't work in the history office with me, would you?"

I said, "I don't think so." I just answered him that way.

And later I happened to meet one of our instrument engineers in a market, and he said, "Betty, I need some help."

And I said, "What kind of help do you need?"

And he said, “I want someone to put up—to write a little paragraphs about the airplane and the people, to identify the people and the airplanes that are on the web.”

And I said, “Well, I can’t do that.”

He says, “I think you could.” He said, “Could you start tomorrow?” And this was in June.

And I said, “No, I’m going the whole month of July to Minnesota.”

He said, “Well, when you come back, well, you call me.”

And I said, “Yes.” So he convinced me. He coaxed, and I went out and did that for nine months, I think. [Received] paid for that [time], though.

And when their money had disappeared and it was winding down, Dill, we were in the same building, [that] Dill was, and Dill came over, and he said, “Betty, would you consider working with me in the history office?” And he said, “Really think about it.” He said, “I know you didn’t think about it before.”

So that’s how I ended up in the [History office]. [I] couldn’t [get paid]. [Dill] told me they [didn’t have funds, I would] have to be a volunteer.... And I said, “Okay.” So that’s where I have been, and I have been there since [Oct. 1996]. [Five] years ... and I work five days a week, seven hours a day. So it’s just like a job, only I don’t feel obligated. When I want to take a whole month off and go on a cruise or go do something [other than history], I don’t feel like, well, I have to use up my annual leave. [Laughter] I don’t have any.

WRIGHT: Well, we’re going to stop for just a second and change the tapes out, and we’ll come right back.

WRIGHT: We were talking about your volunteer work, and I was just curious on how much the volunteer work was different. That pay for your volunteer work is different from the first salary you might gotten working out at Dryden.

LOVE: That's funny, because nothing is nothing, and a GS-1 [General Schedule] was almost nothing, and I think it took me something like two years to have a two-week pay period that would equal \$100 that I could bring home. So my volunteer work and my first years at NACA were similar, except now if I work overtime, I get ten times what I get when I volunteer. So that gives me a pretty good salary to make up.

WRIGHT: But zero times zero is nothing. [Laughter]

LOVE: Oh, dear.

WRIGHT: The other job that you did before you took your volunteer job is when you went back to Dryden and wrote the information for all the planes that went on the web. How many of those descriptions of those planes did you know because you had worked on those planes? How many of those planes that we have in history books have you contributed to?

LOVE: I would say most all of them on the structure side, or—that isn't true either, because I worked for other engineers on some of them also, and they were doing loads work or they were doing stability work, so their requirement would be different than the structure work. But I'd worked on all the X Series airplanes, plus the B-47. I worked on the B-47 and the B-50 doing

structural work. I was trying to think what else. I think those were all the airplanes that I worked. But I worked on the Phase II's, I, II, and III, and I worked on the X-15, 1, 2, and 3. Worked on the XB-70s, 1 and 2 until 2 crashed, and then all the previous ones.

Something interesting, [when] not being able to see the airplanes that I said at first, ... [I didn't really realize the size of the planes.] ... The X-4 has returned to Edwards from Colorado from the Air Force Academy [Colorado Springs, Colorado].... ... It's become obsolete as far as who knows what it is, I guess, and they've sent it back, and it'll be at the Air Force Museum [Wright-Patterson Air Force Base, Ohio]. But it's so tiny that when I think of the size of some of our pilots, I wonder how they ever got in it, because [Stanley P.] Butchhart isn't a small man, and he wasn't a small man then. [A.] Scott Crossfield is fairly tall, and he squeezed into some of those. I do know that I had heard rumors say that the fellows would put felt on top of their helmets to keep them from banging against the cockpit and making a noise or scratching the cockpit. So some of them sat pretty high in their seats.

WRIGHT: Did you ever get to see any of those planes fly in or any of the testing?

LOVE: Of the X ones or any—

WRIGHT: Of the ones that you worked on, ever?

LOVE: Only the X-15 and the XB-70, the lifting bodies. I didn't mention the lifting bodies. Only those. I didn't any of the first that I worked at south base. We didn't see any. But, later on, why, I got to, so that I was in the control room, so you got to see them. So it was pretty nice.

And the control room then was called “the greenhouse” because it was [built] on top of the three-story building, and it was hot up there during the flight, and it wasn’t very big. But they called it “the greenhouse.”

WRIGHT: It must have been very satisfying for you to see that the planes and the pilots.

LOVE: Oh, yes. They were all great guys. They all had a goal and a purpose, and they did a beautiful job, and I think everybody was just as safety-conscious then as we’re being pushed to be now, and we weren’t pushed to be back then. But I don’t think they lost that many planes and pilots from NASA. The air force did, but that was a different situation than what we had.

WRIGHT: Was there any other time that you were called in to help put information together for the planes as a whole, like we just mentioned, of a collection of information? You had mentioned earlier about your logs. We talked about that, and you also mentioned about putting that movie reel together. So I was curious to see if you had any more—

LOVE: Oh, I did a loop of the X planes along with the D-5582. It was supposed to be a short continuous loop film that was used in Washington, D.C., at a meeting or conference that they had there that they wanted, and I put that together, and that was used. That was a fun project, too. In fact, any of this has been fun.

I noticed one of your questions—

WRIGHT: About anything being a disappointment or discouraging.

LOVE: I can't remember ever—

WRIGHT: That's a great accomplishment right there.

LOVE: I think so. I think there was always something new. It was never boring. You might have to do something over and over and over again, but it was different airplane. It was a different time, something different you were looking for in how the plane flew. So it was different every time you [worked with data].

You might be interested in a little tidbit. Harriet and I, Harriet Smith and I, put together a directory of all the people that had worked from 1946 to our twenty-fifth anniversary, which was nineteen-sixty-something, I think, late sixties, and we had an anniversary party. But we did a mailing of all the employees who had ever been there, their addresses and their telephone numbers and so on and so forth. I left mine there, and over the years it got used and it got lost. Harriet said she kept one, but when they moved from Washington back here, she said, "What am I keeping this for?" and tossed it.

For the fiftieth, there was a gentleman, [Weneth] "Wen" [D.] Painter, who put one together, but he didn't take the time to correlate the gals that got married and their married names. So the lists had duplicate people in them, or if they'd had a nickname and they went by their nickname, and their real name showed up, they didn't compare them together. But Dill said, "Betty, there's going to be a seventy-fifth." So I have over 3,000 names and [information] the computer here at home, and I work at it at home. I don't work at it at work. But it's another

fun project. But I thought, what, they just celebrated their fiftieth, so I've got a few more years I can work on it. [Laughter]

WRIGHT: Well, it's nice to see that you're keeping busy and you have such a deadline on this one.

LOVE: No.

WRIGHT: Before we close this afternoon, is there anything else that you would to add or any other reflections on your work there that you'd like for us to know about?

LOVE: No, just that I don't know how much longer I'm going to do this. [Laughs]

WRIGHT: Well, at least until we get to the seventy-five anniversary.

LOVE: Well, I don't think so.

WRIGHT: We thank [you] for all the time and all the efforts and the help that you've given this project.

LOVE: Well, I thank you.

WRIGHT: And wish you the best of luck.

LOVE: Well, I thank you. You've been very patient with doing all this also.

WRIGHT: I've enjoyed learning all that I have, and I thank you again for all that you helped.

[End of interview]