## NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT EDITED ORAL HISTORY TRANSCRIPT

MAUREEN BOWEN INTERVIEWED BY REBECCA WRIGHT HOUSTON, TEXAS – 21 JUNE 2007

WRIGHT: Today is June 21<sup>st</sup>, 2007. This oral history interview is being conducted with Maureen Bowen in Houston, Texas, for the NASA Johnson Space Center Oral History Project. The interviewer is Rebecca Wright, assisted by Sandra Johnson.

Thank you for coming in this morning and spending some time with us to talk about your career with NASA. We'd like to start with you sharing with us how you first began working at the Manned Spacecraft Center [Houston, Texas].

BOWEN: I was born in Washington, D.C., and grew up in that area. I worked for the University of Maryland [College Park] as a secretary in the horticulture department. Then I worked as a secretary for what is now HUD [Housing and Urban Development] in Washington, D.C., and was perfectly happy there. I remember one of the secretaries there who was not happy saying that, "You know, they're building a space center in Houston. I'm thinking about applying there."

I thought, "Why in the world would anybody want to leave here and go do that?" Well, as time would tell, she never did, yet I did.

I ended up here because when I became pregnant, my husband said, "My baby's not being born anywhere but Texas," so off we came. Having worked for the government, I opened the phone book to see where the government offices were, but had in my mind this space agency. I interviewed with Stan [Stanley H.] Goldstein, and I was asking for a temporary job, because I was going to be a housewife and mother. I wasn't going to work after the baby was born. He told me, "Well, if you were going to work [permanently], we could probably place you somewhere, but we really don't have temporary jobs."

So I said, "Thank you very much," and went away, and I took a temporary job through a regular temp [temporary] agency.

I ended up working for Couch Mortgage Company on Westheimer [Road, Houston, Texas]. They liked me and said, "Hey, come to work for us afterward." I said, "Oh, no, I'm not going to work afterward." Well, as it turned out, I was going to work afterward.

At the Center, I interviewed with Les [Leslie] Sullivan, who put me with Gene [Eugene F.] Kranz' branch, the Flight Control Operations Branch. We were located in the Stahl-Meyers Building on the Gulf Freeway [IH 45] at Wayside [Drive, Houston, Texas]. It's been through several iterations since, and I believe now it's an Oshman's warehouse. We were in that building until June of 1964, when we moved on-site. I believe we were one of the first organizations to move on-site and we moved into Building 30, which was very exciting.

It was a whole new world for me. One of the first assignments I had was typing the sim [simulation] scripts for MA-9, Mercury-Atlas 9. Gordon [M.] Ferguson and I worked overtime for two weeks to do those sim scripts, because our guys were incorrigible. They would always try to get copies of the scripts so they'd know what problems were going to be thrown at them. So we worked overtime. I typed those sim scripts on a Ditto machine [duplication device]. Most of the clericals you'll talk to now don't even know what a Ditto machine is; I've seen the evolution of the technology from Ditto machine forward.

Every job I had was in the organizations that were just an evolution of what is now Mission Operations Directorate. I started out as a secretary, and in 1979 I moved into an administrative assistant position through an Upward Mobility [Program] door that opened for a nanosecond. I was very, very fortunate, because I was now doing the work that I liked to do the most. Even as a branch secretary, I was doing the move coordination and the training records, all the things that most of the AOs [Administrative Officers] do now.

WRIGHT: What did you know about the space program? It was new, and the Center was new. What did you know about it other than the parade that you got to witness in D.C.?

BOWEN: Well, it was a big news item in those days, because we were in a race with the Russians. You pretty much knew what the U.S. was doing, that we wanted to get a man in space.

Mercury was our very first program. Working for HUD, I was only a couple of blocks from the White House, and I remember walking down to Pennsylvania Avenue to watch the parade after a Mercury flight. Then, I came to work here and worked through all those programs—Mercury, Gemini, Apollo, ASTP [Apollo-Soyuz Test Project], Skylab—all of them with their own challenges.

Then in those days in those sections most of the guys who came to work had been contractors working on remote radar stations, so they were a pretty crusty bunch. You learned quickly if you can't beat them, you join them. I was treated so well and as one of the guys for so long, and I always felt a part of the office, a part of the team, and I appreciated that so much. WRIGHT: Could you share with us how your operation was set up in the building on the Gulf Freeway and then how that changed when you moved to Building 30?

BOWEN: In the Stahl-Meyers Building we only had a few offices. The section head and two or three other guys and I all shared one office, and then Gene Kranz was upstairs in the Branch Office. There were a couple of other sections, another one on the first floor with us and then one or two upstairs in that building. It was a very small office space, and Chris [Christopher C.] Kraft's division was next door in the HPC [Houston Petroleum Center] Building. Dr. [Robert R.] Gilruth's office was in the Farnsworth-Chambers Building, and the Center was all over Houston, as you know, so we were all working very closely and we were a team from the very beginning.

WRIGHT: The guys that you worked with had already been part of the operations from the Mercury Program. Is that right?

BOWEN: I came in toward the end of the Mercury Program. We were getting ready for MA-9, and that was the last Mercury flight. Some of the guys had worked with the program. The civil servants had come from [NASA] Langley [Research Center, Hampton, Virginia], and the contractors had come from remote sites. We were such a young organization then, there were people coming in all along the way, and mostly contractors in that building. By the time we got to the site, we were really hiring the fresh-outs, the young guys out of college.

It was really interesting to see the differences between those guys and the older guys, because they were having to learn computers, and the old guys didn't want to turn loose of their slide rules. We had a terrible time getting those slide rules away from them. They'd send the young guys to the computer classes, and they'd come back and I'd type their white papers. I laughed when 30 years later I finally understood Boolean logic. [Laughter] I typed it so many times in the old days.

I saw so many of those guys coming in fresh out of school. Steve [Stephen G.] Bales. Gerry [Gerald D.] Griffin came in right out of the Air Force. Many of the legends of Ops [Mission Operations] came through our organization in those days. We were not only coworkers, it was almost like family. It was a new program. We were learning new things. We were doing new things. It was so exciting, with history being made all throughout.

WRIGHT: Were you the only secretary handling this group?

BOWEN: Well, my group. Once I got to be a Branch Secretary, we usually had two sections underneath us, and we had a secretary for each section. Those things changed over time to where you have only one Branch Secretary now. There were three branches in the early days, and each one had a secretary, plus some younger secretaries. With the evolution of the organization to the division level and more branches, and then the directorate level and more divisions, the organization grew from practically a handful of people to one of the largest organizations on-site, probably the second largest to Engineering.

WRIGHT: Tell us about moving to Building 30. How did that affect you as well?

BOWEN: It was probably about equidistance for me, because I lived in Pasadena [Texas], and so going to the Gulf Freeway or coming out here was about the same. But coming out here was like going to no man's land, because there wasn't anything here except the Center. For a long time it had been a cow pasture. NASA Road 1 [renamed NASA Parkway] was a two-lane road, and there might have been one building on it. Down at NASA 1 and [State] Highway 3 was a truck stop before it was Vernon's Pizza and The Hop that it is now.

Ellington [Air Force Base] had been there through the war, and from Ellington south there was almost nothing, so that was an adventure for me to come out this way. At first I came down Highway 3. Later I came down Red Bluff [Road], which at that time was a two-lane, pothole-riddled—it was paved, but it probably had as much dirt as it did pavement, and you were in the woods, but it was a quicker way and a much easier ride. It's been very interesting to watch not only the growth of the Center, but the growth of the whole area. Look at it now. There's hardly an open space anywhere.

WRIGHT: Then when you moved into [Building] 30, it was a brand-new facility, state-of-the-art.

BOWEN: Oh yes, brand-new building, more like a college campus. We had other organizations on-site, also. You didn't have to drive somewhere to get to HR [Human Resources] or where the teletypes were or Payroll. It was quite different. You would think that once you moved into Building 30 you would have stayed there, but there was one point in which we moved from Building 30 to Building 45, and we stayed there a couple years. We ended up going back to 30 into the same room I had been in before, and was there a few years. We went back to Building 45 into the same room I had been in. It was almost freaky, you know.

Between then and when I ended up in 30, we had been in several other buildings, 13, 29, 4, 17, several buildings, because the office I was in ended up to be a CHIP [College Hire Indoctrination Program]. We were small, so you would fit in small spaces, where they wanted to make organizations contiguous, so they'd have a space here. We were all over the place. It really didn't matter, because the directorate ended up so large that even some of our divisions were split among buildings. There was no way you could avoid travel between buildings, so it really didn't matter which building you were in.

WRIGHT: It sounds like those days were so busy and diverse. Can we talk about some the tasks? Would you tell us a little bit more about typing up the sims for the MA-9 mission?

BOWEN: In those days we typed everything, and we typed them on typewriters with 10 carbon copies that you had to erase when you made a mistake, so your typing skills would tend to become very good, because you didn't want to make those corrections.

WRIGHT: Did you have electric typewriters at the time, or did you start with a standard?

BOWEN: We started with standards and got electrics pretty quickly. Some years later, probably in the mid-70s, Jo [Josephine C.] Corey and I—we were in the same branch—we volunteered for word processors. Many of the other secretaries didn't want it, but Jo and I thought, "Anything to make typing easier." We got the first word processors in the directorate, and I don't know, maybe on the Center. They were Daktronics then, which was a Xerox product. It was your very basic word processing, but you could correct and add things, and that was wonderful. Once the other secretaries saw what we could do, then everybody wanted them, and of course, now you see what's happened in that world.

When they started controlling the Gemini flights from Building 30, then we would work over in the [Mission] Control Center. There were the main positions in the MOCR [Mission Operations Control Room], which is now a FCR [Flight Control Room], and in the main Control Room, and then each position had a back room. We were mostly in the back room, doing typing, running errands, making coffee, even operating the P-tubes [pneumatic tubes]. That was an interesting exercise.

In order to support the management during the flights, the Sim Control Room was a room right off the main Control Room, and when they weren't running sims, when they were actually doing the flying, they had typewriters set up back in there. We would be back there, and somebody would wave us in. We'd come in and they'd ask us to do something, because that's the only way you had of communicating in those days. Now, of course, everybody's got their PCs [personal computers] and everybody does his own thing. I wonder sometimes what we are losing because we aren't really documenting. It was there if somebody wanted to gather it. I'm not sure how much gathering is going on now.

In those old days any building you'd walk into, the hallway walls were just lined with systems drawings. That was the first thing new people had to do. They'd give them a handbook and those systems drawings, and the new people coming in would be almost overwhelmed, but they knew every wire, every place all that went, and the handbooks that they read.

Now, they do have handbooks, but they are online. They have the drawings, but they're online, also. I kind of missed that [drawings on the walls], because you could see everything and it was all right there. Everybody, all the guys were out in the hallway tracking this or that,

especially around sim time and around flight time when something wouldn't do what they thought it was going to do.

WRIGHT: Tell us about these sims and your part in typing up all those scripts. Did you help come up with some of the ideas?

BOWEN: No, generally our guys came up with the ideas, and they were used to it from their experience at the ranges, when they were in the military or when they were contractors supporting the military. Some of those guys came from places like Tule, Greenland, and they had been to some really remote places.

They would come up with all kinds of things. One of the most interesting was when they had one of the guys simulate a heart attack. That was totally new; that wasn't in the MA-9 sims that I was typing on the Ditto machine. But we always had other sim scripts that we did, and they would run those sims. I think most of the Controllers today will tell you that they pretty much had simulated almost anything that they were up against. They were really good at it. They were really good at what they did.

WRIGHT: Some of the other tasks that you mentioned when you were giving us a little bit of history, or the places you had to go, HR, Payroll—was all that part of your duties as well, when new people came in, to get them processed and up to where they needed to be for their paperwork?

BOWEN: Yes. They would come in through HR, but you still had their time cards and you had to teach them how to give you the time. We filled in the time cards in those days; now they do their own time sheets.

Kranz, "the data monger," had some of his people come up with the first really automated time system. We called it "Marvin Manpower;" that was a nickname for it. It really ended up being time charge management that the Info [Information] Resources people came up with. We had these legal-sized—we called them "green sheets" in those days, because they were printed in green. We had charge numbers, and you had a list of all the things you could charge against, and so the guys would fill in their charge numbers and the hours they spent on it. I did it in the branch for our people, keeping up with it and getting new items put in and taken out. Then when I moved into the division level, and also the directorate level, that was one of the things I kept up with.

I never will forget when we transitioned from the green sheets, we went to a page-sized what we called a "gray sheet." We wouldn't call it a "black sheet," because it wasn't black. But it was regular Xerox copies. We had kept those old records because Gene would call and he'd say, "Can you tell me how many hours we charged to whatever in year whatever?"

One year the Info Resources people came to me, and they said, "You know, it's really a lot of effort to keep these like this. Can we archive them for you?"

I said, "Uh—".

They said, "You don't have to worry. The longest it will take you to retrieve is overnight. You ask us for the information; we'll have it for you in 24 hours."

I said, "Are you sure? Because when Kranz asks for the data, we need to give him the data."

"Oh yeah, we're sure."

Well, a year or two later Gene asked for something, and I called over and I said, "I need this." Not only could they not get it to me in 24 hours, they never could find it. I don't know where they put those reels that they archived them to. So for me, *archive* became kind of a dirty word, because the whole reason Gene did that system was to be able to retrieve the data.

We had not only what we were doing for our organization, but then getting that moved over to Payroll. As you know, everybody does something similar to that now so the Center can retrieve data. When we had those two RIFs [reduction in force], we were able to protect our people, because we could go back and show just what they were doing.

A RIF will bounce back to where your newest people are going to get hit, and we could show that our newest people were in an official training program, the Technical Intern Program, but also the kind of work that they were doing and how many hours were being spent on each task that we needed to do in order to fly. That, I think, also inspired some other organizations to say, "Hey, it worked for them; it could work for us."

About 10 years ago one of the guys in the office came to me, and he says, "I've got it on good authority we're going to have a RIF."

I said, "John, we're not going to have a RIF."

He says, "Oh yeah."

I said, "John, we're not going to have a RIF." I said, "I went through those two RIFs the Center had, and they were so heart-wrenching that I know the Center will not have a RIF unless there is no other way out."

So it became a bet, and I'm not a betting person. He said, "What do you want to bet?" I said, "I don't know. What do you want to bet?"

He says, "How about a lunch?"

I thought, "Okay, I can-," and I said, "Okay, I'll bet you lunch."

A couple weeks later he said, "Well, what kind of time limit you want to put on this bet?"

I said, "I don't care. Pick a time."

He said, "Okay, two years."

"Okay." I wrote it in my calendar.

Well, two years later we hadn't had the RIF, and he says, "Okay, I need to pay up."

I said, "Well, John, I told you I knew the Center was not going to have a RIF." So we did have our lunch. This is such a funny story. The day that we were going to go to lunch, John said, "Well, hey, bring Georgia, too," [Georgia S.] Piwonka.

As we were walking out of the building, it must have been a paper clip or something; I slipped and went down on my knees. "Okay," you know, "just give me a minute," and I get up and we get all the way to the end of the parking lot and his car, and there's somebody tapping on my shoulder.

It was Yolanda Guillen-Burris, the Facility Manager. She says, "Okay, come on. We're going to clinic."

I said, "No, no. No, we're not going to clinic." I said, "This man's going to buy my lunch, and we're going to lunch."

So we go to lunch, and he says, "Where do you want to go?"

I said, "You're buying. You pick." He chose the Oriental Gourmet.

We go over there, and he says, "Okay, I'm going to drop you and Georgia off at the door, and you get in line, and then I'll come in." Well, he comes in, and we have this lovely lunch, and we go out and his car is gone. He had parked it across the street where they have this sign kind of hidden in the bushes that says, "If you park here, we're going to tow you."

There was a wrecker over there towing off cars like this, and we said, "Where are you going?"

He said, "Elgin [Street]."

So Georgia went back to the restaurant, and Bob [Robert] Musgrove was leaving. He said, "I've only got a two-seater car, but I can take one of you back to the site." Georgia went with him, got her car, came back and picked up John and me, and we're heading down the freeway.

We get to Edgebrook [Drive], and John says, "Why don't we pull off here?"

I said, "John, Elgin is almost downtown. It's by the University of Houston."

He says, "Well, you know, why don't we just get off here?"

I said, "This is way too soon to get off the freeway."

So we go down to Elgin and we're looking at the number that they had said, and we drove for miles down Elgin, and it was going nowhere. I said, "I don't see anything that even looks like a parking lot."

We stopped, and Georgia calls the insurance place that was there [from where he was towed], and he wasn't even parked—they had plenty of spaces outside their office. They just had this thing going with this company. And they said, "Elton Street," which was between Edgebrook and College, all the way back. He had to pay \$100 to get his car.

What started this story? Oh, about the RIF. The RIFs being painful. They were. They were terribly painful.

WRIGHT: Were you involved in procurement for supplies and materials and whatever was needed for your area as well?

BOWEN: Actually, not the procurement part but we ordered supplies. The guys would tell us what they needed, and we'd do whatever the paperwork was at the time to get the supplies. Sometimes it was a phone call; sometimes it was sending somebody out there [to the supply area]. Sometimes there were forms to fill out to get the supplies.

For a long time, Mary Lou Fosbrink took care of supplies for Kranz' whole division. Mary Lou was Betty Grissom's sister [wife of Virgil I. "Gus" Grissom, Apollo 1]. Betty and Gus had moved here from Indiana; Mary Lou and her husband Albert lived in Indiana, but the Center moved them here, so Betty would have some family here, and employed both of them. Mary Lou came into our organization, and she ran the supply room, and boy, she ran that thing like a first sergeant. She did a very good job, and we became the best of friends.

WRIGHT: You had such a community of friends and family that it must have been rewarding to come to work and visit with these people every day, because it was more than just a job.

BOWEN: Yes, it was, absolutely. Whatever it was that brought me here, fate, whatever, I can't imagine having been happier anywhere else. I treasure my time here. One of my biggest pleasures these days is I keep up with the Apollo Flight Ops people. I'm on the Board of Directors of our nonprofit association, and I have the e-mail list; good news or bad news, it goes out to almost 600 people.

Many of them lately have said, "You know, we almost hate to see an e-mail from you, because we know it may not be good news, but we appreciate the information." The people have scattered. They're all over the country, and they always express an appreciation for that information.

I really wish that there were someone doing something similar for the Shuttle people. I would like to do it, but keeping up with this bunch is really a big job. I would like to do it, and I enjoy even now, every once in a while Milt [J. Milton Heflin] will call me for something, or I'll do something for somebody else. It's not like the job or the connection ended when I retired.

WRIGHT: The social element of the early days was quite strong at the Center. Is that a correct assessment?

BOWEN: [Laughs] That is a very correct assessment. From where I was, those guys, they worked hard and they played hard. I've said several times, "Boy, it's probably a good thing that I was young and married to a policeman and had young children, because I wasn't able to participate in all those parties," the splashdown parties, you know. I heard all about it the next day and I might have ended up in some kind of trouble. I always enjoyed the stories. Some of them were almost unbelievable.

I see a difference nowadays. It's not that the people are any less friendly or whatever, but in the intervening years, there weren't as many dual-parent workers. Many of the women stayed home and were housewives and brought up the children. Now, you almost have to have both of them working. With the jobs and the families, they don't have the ability to really jump into that playground that they had in those days. WRIGHT: That's an interesting thought. I'm glad you shared that with us. When did you see a change in how many women were coming to the Center? Were you one of the few when the Center opened up and your branch moved here?

BOWEN: I wouldn't say I was one of the few, because the only women in those days, practically, were the secretaries and then a few in HR, some in Payroll, and some in Procurement. The change for the women started, I believe, probably in the 70s. It was about then when we got our first female engineer, Anne [L.] Accola. She was the first and the only one for a long time.

Also the times were different, and in the early days many of the women who went to college became teachers or nurses. You didn't have that many women in the engineering fields, because many of them were staying home. In the 70s—it was probably a generation after me— more of the women were attending college, were becoming engineers, attorneys, doctors, all of the professions now. It was slow in the engineering world, and slow, slow in—I don't know why in Ops it was slow. Like I say, Anne was our only female engineer for a long time.

Then once it started, it really moved up, and I'd say we're probably 30 or 40 percent women now. It was really nice to see the women coming in, the professional women. It was nice to see when they first became Section Heads, when you got the first women Division Chiefs, and in MOD [Mission Operations Directorate]—we haven't had a female [MOD] Director yet, but it will happen someday. The women are there. I've even had a Branch Chief or two tell me they'd rather have women. They work harder and they're easier to deal with. [Laughter]

## WRIGHT: Did you have a woman boss?

BOWEN: Not until the last 10 years or so, and that was only because I was the only directorate AO who wasn't located with her Director, ever. Because of that they want to put you where there's a supervisor who can see what you're doing, so I was in Mary [Allen] Wylie's organization. I was fairly autonomous all that time, and Mary and I got along fine; still do. Some women have a hard time working for another woman.

One thing I learned early on is, and I tried especially to tell the secretaries, because I find that a lot of times secretaries want to treat everybody the same. I tell them, "You're going to run into some problems there, because you really need to learn each person and how they are, and work with them the best way that you can work together with people. Once you make that realization, you will get along much better. Everybody isn't the same."

WRIGHT: That's true. You were here since the last part of the Mercury Program. The astronauts that you encountered [originally] were all male until the 1978 class. Tell us your thoughts when you heard that the Shuttle astronauts were going to be more diverse in nature than you had worked with previously.

BOWEN: My first thought was, "How in the world are they going to go to the bathroom?" [Laughs] Because even though we had been flying astronauts for a long time, those were kind of personal things. I know there were guys, and especially the sim guys and whatever, who knew just how all that took place. So my thought was, "Golly, in that small space how are they going to do the thing?" Because guys, guys don't pay any attention to any other guy. Now, you put a woman in the mix, and how is all that going to work? I never had any concern about their technical ability or anything like that. It was just the logistics of how it was going to work. Of course, the space program had to deal with that.

WRIGHT: You mentioned this just briefly earlier, you talked about the Upward Mobility Program that was to assist clerical staff into more professional positions. Tell us about that and when you first heard of it and how that impacted you.

BOWEN: Well, up until that time the only way to go from secretary into administrative was the federal service entrance examination. That's another funny story. I had always heard that test was horrible, just a horrible test; nobody could pass it. They gave the test on-site one time, and I took it, and it didn't seem too bad, but you wondered afterward. I remember seeing Ted [Fredrick T.] Boyes at some point afterward, and I said, "Well, Ted, how did I do?"

He says, "Oh, you didn't make it." He was joking. I didn't know for months later that I had passed that test.

By then they had developed this Upward Mobility Program, so that test wasn't even needed. You could apply, and you may or may not be selected. I was, as I say, very fortunate. I was doing work that I loved, and Cecil [E.] Dorsey was the Office Chief, and then Jennie Hughes replaced him. Then Jenny moved over to be the Federal Women's Program Coordinator, and Cheryl [H.] Bouillion came in and was the Admin [Administrative] Officer. I used to do all these charts and all these things for what I thought people needed administratively, and I remember she told me one time that she had told Jack [R.] Lister, "If you ever see Maureen Bowen's name on a promotion [Standard Form] 52, sign it."

I thought, "Man, that doesn't hurt," you know.

Cheryl and her husband had been trying to have a child for like 10 years, and they finally said, "Okay, we're going to adopt." A month after they adopted that baby, she found out she was pregnant. So she had two babies under a year old. She resigned at that time, and I was lucky enough to move into that position. I was in the office, and I applied. I got the job and under Cecil Dorsey, and was an administrative assistant. When you get to the [GS-]11 [General Schedule, pay scale] level, you become an Administrative Officer.

I remember Joe [Joseph H.] Gallagher telling me one time, "Oh, you'll have your [GS] 12, no problem."

I thought, "Oh, man, 12s are awful hard to get for non-degreed people."

Cecil ended up taking a position out in Center Ops, out in Logistics, and I was lucky enough to move into his position. We had always been away from the directorate, and I think because I had grown up in the organization, knew the organization, it wasn't an ideal situation, but I could operate away and autonomously. But I always told them, I said, "You know, my successor really needs to be over here, really needs to be over here so they can learn the office and the directorate."

When I retired, Georgia Piwonka had been my right-hand woman for so many years, and when I went through all those surgeries, she was thrown more or less into the position. I told them, "You're crazy if you don't select her." They did select her, and they did move her over there to the directorate, which is really going to be helpful. Because no matter how much you tried to anticipate their needs for a meeting, you never would have all the right documents. I used to carry this huge book around with me and try to have any data I thought they might want. The register and some training info, this, that; and even though you knew the topic of the meeting, it could stray off into another direction. It was difficult to always have what you needed right then. You say, "Well, I'll get it to you as soon as I get back."

WRIGHT: How many more duties did you take on when you moved up? Tell us more about what an Administrative Officer is responsible for.

BOWEN: Other duties as assigned. [Laughs] I've said this for years and it's almost true. You do everything nobody else wants to do. Engineers don't want to do anything administrative, so you get all the floor space, the supplies, the job requirements, promotions, training; anything that isn't engineering becomes yours.

Managers get used to, when they say, "I want this," it's there. They have no idea sometimes what it takes to make "this" get right "there." So to me that position has more duties, different duties, than almost any other; that you never get to finish one thing before you're doing three others. You go in and look at any AO's desk, and they're going to have several folders that they're working at the same time. You have to get pretty good at multitasking.

WRIGHT: You had so much corporate knowledge when you came in there, because, like you said, you came in in 1962. Tell us about the great memories that you look back on.

BOWEN: All of them. Doing those simulations. Working at the agency for just a couple of months, and then I'm doing simulations that they're going to use when the guys simulate the flight.

WRIGHT: Did you get to witness those? Were you in the sims when they did those?

BOWEN: Not in the Stahl-Meyers Building, because they went somewhere else to do their simming. Once we moved on-site and once the Control Center was operational, yes. Oh yes, I was over there a lot. Moving from one program to another, each one—the Gemini Program, the first time we had two of them up there at the same time; the first rendezvous in space, Gemini 7/6. Just every single thing we did was another treasured memory. Apollo, you know, the tragedy of the fire and then how determined it made everybody to never have anything like that again. The triumph of Apollo 8 that finally went around the Moon, and Apollo 11.

WRIGHT: What were your thoughts when you heard that they were going to send [Apollo] 8 around the Moon? Because that was a big moment.

BOWEN: For somebody who's not an engineer, who doesn't understand flight dynamics and physics and all of that, you think, "Wow." When we were first—even the Mercury flights; I remember when I was a kid and *Captain Video* was on TV. They'd have the spacecraft out there, and I thought, "You know, this is so farfetched. They're never going to be able to do anything like that. Everybody knows there's no air up there." Not only did I live to see it

happen, I was right in the middle of it. So I always think back on *Captain Video* and Maureen saying, "Ah."

They're all such treasured memories, every achievement we made. Then the tragedies, they stand out also, and seeing what it did to the guys. When you think for all the flights we've had, the statistics tell you you're going to have more than we did. In that regard you can feel good, but it's never good to lose a crew.

WRIGHT: I want to ask you about Apollo 11 because when you went to work there, that was the greatest goal that everyone was trying to achieve. Were you on the Center at Apollo 11?

BOWEN: I was in the Control Center for every lunar landing. You don't hear about this particular task. My branch at that time was the Experiment Systems Branch, which included the lunar surface experiments. The principal investigators were from USGS, the [United States] Geological Survey out of Flagstaff, Arizona. During those Apollo flights their whole focus for any lunar landing was the topography, the geography of the Moon.

In order not to miss a word—now, we didn't have voice recording in those days like we do now—they hired two court reporters. We put them in our Experiments SSR [Staff Support Room]. We gave one a Selectric typewriter, and one had his stenotype machine, and they would trade off. One would be taking down every word the astronauts said on the Moon, and the other one would be typing. Well, knowing how this would be going, we loaded the machine with a roll of paper so they wouldn't have to be doing sheets of paper.

The one guy is doing this, and the other guy is typing at 130 words a minute with this roll coming off, and I was standing there with a pair of scissors, and as this came off, I'm cutting it

into page-size sheets. When I'd get about 10, we had a runner that I would hand it to who would go to the nearest Xerox machine. We did have Xerox machines by then. He ran—the initial run was 10 copies that were delivered to the 10 critical positions in the MOCR and the geologists. Then after that—oh, the first one, Apollo 11. After that they wanted a million copies. I stood at a Xerox machine for eight hours running that Apollo 11 transcript.

I said, "Okay, we're not doing this anymore," and I contacted Laverne Brazil, who at the time ran the copy center. You used to have to take your things out to another building to get multiple copies run. I said, "Okay, let's work something out." So she worked it out that they set up a Xerox machine in Building 1, and so after we did the 10 copies and we got a few more sheets, then we had a runner taking them over to Building 1, running however many copies it was, multiple, and who would bring them back.

WRIGHT: Didn't take too long to learn, did it? [Laughs]

BOWEN: Oh, one flight. I could hardly move after that. But in those days everybody did whatever it took for the job. Some of those guys, they just had like a dorm over in the Control Center for a while, because they were there night and day. Nobody worked an eight-hour day. Everybody did whatever it took, whatever it took. You did learn quickly some of the things that could be made easier and better.

That was so thrilling to be right there. Well, I said every one of them, and you know, every one of them was in the middle of the night. Every one of them was at nighttime.

WRIGHT: Well, then [Apollo] 13, that caused a little more turmoil. Were you in the midst of that as well?

BOWEN: Well, yes. See, we were there, and we were ready. That was something else. Everybody knows about 13, watching those guys, and talk about people staying, because they had Tiger Teams, and everybody was doing everything. It's just incredible.

WRIGHT: Did you provide the same support that you had before, just whatever they needed?

BOWEN: Correct, yes. Some of everything; you were getting sandwiches, whatever. Well, all throughout that time, I cut a deal with Shipley's Donuts to give us doughnuts at five cents apiece, and every morning—I don't know how I did it, because I couldn't do it today. Every morning I got up and got my kids breakfast and ready and to daycare in time to get to Shipley's at six o'clock in the morning.

I dropped the kids off at six; that's when daycare opened. Went right to Shipley's; picked up 12 dozen doughnuts and brought them out to the office, set them up, and we had two 45-cup coffeepots that we started each morning. They would go through that in no time. Pat Garza rode with me for a long time, and we got the doughnuts and got the coffee made, and the guys had their coffee and everybody's off and running.

This is another funny story. One day Jim [James E.] Saultz, who was the Branch Chief, told me, "Hiram Baxter is going to come down and work with us for a while. Be sure you have a desk and all that stuff for him." Well, I didn't know Hiram, but I got the desk ready and some supplies, all the stuff the guys generally need.

That afternoon a guy comes in, and he's at the coffeepot. I thought, "Oh, this must be Hiram." I said, "Hi." I said, "Are you a Baxter?"

He wheeled around, and he said, "What did you say?"

I thought, "Oh, my gosh, this Baxter guy is something else."

It was Johnny [John E.] Cools [Jr.], and he thought I had said, "Are you a bastard?" So to this day I call him, "Mr. Baxter." [Laughs]

WRIGHT: What a way to start.

BOWEN: I know.

WRIGHT: That is a funny story. You've worked at so many different branches. How were they all different? You mentioned the Lunar-Earth Experiments Branch.

BOWEN: Just evolution through reorganizations. It was pretty fast-paced through program after program after program and the different assignments within the program. I worked for Mel [F.] Brooks when he was the Section Head, and then became the Branch Chief. I was his Branch Secretary until he left and went over to Building 1, and Jim Saultz got his position. I worked for Jim for 12 years before I moved to Cecil's office as a secretary.

The way I got into that was back in the 70s—it was 1976, I believe—the Center wanted to try a—they called it an Administrative Center concept. Well, what it was was a typing pool by another name. Alma [S.] Martin, who worked for Les Sullivan, was put in charge of this

project. Our directorate volunteered to take over this project, and they decided that Charlie [Charles S.] Harlan's division, which is where we were at the time, would do this.

Alma interviewed all the secretaries in the division and all the managers, and we told Alma, "This is not going to work. Here is why." This was a total new experience for Alma, because nowhere on-site do I believe there were secretaries who were as outspoken as we were, but we had learned from the guys.

They decided they would do it, and there were some interesting things during that process. It really gave me an opportunity, because I was the one who designed the whole suite, and we got the walls painted and just everybody colocated, etc. Nobody tried to sabotage the project. We were all doing what we were supposed to do, but everybody was miserable.

At one point they decided, "You know, they're not busy enough. We're going to have them support the Flight Director Office, also." Flight Directors are pretty independent, and I remember Neil [B.] Hutchinson would come to me. Neil Hutchinson has a very unique style of writing that was totally against all the Center correspondence rules. So he'd bring in something to be typed, and I would change it to fit the Center's rules, and he'd come back and say, "No, I want it this way."

I said, "Neil, you can't do it that way. The Center has rules. It's not going to get out of here if you do it this way."

He said to me, "You know, you could never be my secretary."

I thought to myself, "I'd never want to be your secretary." [Laughs] So we're in this mode.

Jo Corey was the first one to leave. Jo was probably the quietest person in the whole group, but she took a branch job in one of the branches that wasn't a part of this, the first time she ever considered going anywhere. I had encouraged her for years to apply for a branch job.

She wouldn't do it. Then one day Cecil came walking through, and he says, "How's it going?"

I said, "I hate my job."

It was two weeks later he called me, and he said, "Can you come down for a minute?"

I said, "Sure."

He says, "Would you be willing to come down and work for me?"

I said, "Doing what?"

He said, "As my secretary."

I said, "Yes, I will." And that's how I ended up in his office.

One of the first things I did was this huge training matrix that he showed Kranz, and Kranz liked it. It wasn't long after that the whole [administrative] center was disbanded. We told him that you can't take people who have grown up one way and throw them into something that says, "You're in a typing pool now," because they're people who have moved through the system, have become branch secretaries, and they're not going to want to do this. As I say, nobody sabotaged it, but it didn't last. They abandoned the project. In those days it cost us \$225,000 to do the changes to the suite, etc. I thought, "Man, that's \$225 K we could have put on something else." In government terms \$225 K is nothing, but to me it was a whole lot.

In Apollo—I know you've read Gene's book, so you've read how I thought I was going to a federal prison for a while, when we did our [commemorative] mugs and patches.

WRIGHT: Tell us about that. I don't remember all the details. It's been a while since I read it.

BOWEN: It was in Apollo 11, and Gene decided we needed to have some mugs made with the emblem and our names and our position, and get some embroidered patches. So [the task] was given to our branch. Mel was the Branch Chief; Bruce [H.] Walton was the Deputy, and Mel told Bruce and me to take care of this. We said, "Okay." We called Balfour; we knew they did mugs. A guy came out. We even went out to their place one time, and we picked out the mug. They had a committee that went through the design, and we placed the order.

I looked in the Yellow Pages under "Embroidery," and found a company that did embroidery in downtown Houston. I called them, and the guy says, "Well, you're in luck. We happen to do the official ones, and we'll just tack your order on the end."

I thought, "Oh, great."

So the patches had come in, and we'd given those out. We weren't making any money; we just charged what it cost us. I had been out at the copy machine or somewhere, and I came into the office and Bruce came out, and he said, "Hey, Maureen, can you come in here for a minute?"

I said, "Sure."

I go in his office, and he said, "This is Glenn [L.] McAvoy, the NASA Regional Inspector."

I said, "Hello."

He said, "I understand you've been doing mugs and patches."

I said, "Yes, sir."

He said, "How have you been handling the money?"

I said, "Well, we collected from people and put it in the coffee fund, and when they came in, we paid for them." He started quoting from Title 18 of the U.S. code that it was illegal to use government insignia, and it was so many years in prison, and so many dollars in fines. All I could think was, "Oh, my god, I'm going to be so old and so poor by the time I get out of prison." All I could say to him was, "I wish you'd talk to our Division Chief."

He says, "Oh, I intend to." He said, "Do you think we can talk to him now?"

I said, "You've got to be kidding. You can't just go—." So I called up to Lois Ransdell, and I said, "Lois," I said, "the Regional Inspector's here, and he's upset over our mugs and patches." I said, "Do you think we can get to Gene?"

She said, "Well, he's in a meeting, but I'll pull him out." So we went up, and as soon as—the inspector thought Bruce and I were doing this, making money on our own. As soon as Kranz said, "Oh yes, it's a division project. I asked them to do it," that guy did a total 180 [degrees].

"Oh yeah, well, you know, I play golf with Gerry Griffin every week." He says, "I'll tell you what. I'll help y'all get this approved."

I thought, "You jerk." So everybody went away.

Well, Gene didn't even wait for him to do anything. Mike [Michael] Collins, the [Apollo 11] crewman, took it to [NASA] Headquarters [Washington, D.C.] and got it approved for us.

Oh, and the [Inspector] guy says, "I'll even order one of those mugs."

When the mugs came in, I called him, and he came over to get the mug. Well, Bruce wasn't there. When Bruce came back from wherever he was, he said, "Did McAvoy come get his mug?"

I said, "Yeah."

He says, "Well, did he say anything?"

I said, "No. He just kind of looked a little funny." Bruce had put a swastika on the bottom of it. [Laughs] If he had told me, I never could have given it to him, but since he didn't and it happened, I got a big kick out of it.

Now, Kranz wouldn't have had us do that, either, so it's a good thing Bruce just didn't tell anybody. But, here I am, this lowly person, and I'm thinking about going to prison.

WRIGHT: Married to a police officer, too. [Laughter]

BOWEN: Oh, boy, that was another thing. When they opened the brand-new Pasadena police department, they had the families come in for an open house. I went downstairs where the cells are, and they're not the ones with the bars. They're with the heavy vault doors. One of the guys is there, and he says, "Hey, go ahead in."

I said, "No, I don't think I want to."

He said, "Oh, we'll let you right back out."

I went in there. That door slammed, and at that moment I knew I would never do anything that was going to put me in a jail. Over the years when some of those guys asked for—I said, "Look, I will bend the rules as far as they'll bend. I will not break them."

Oh, and this is back at the Stahl-Meyers Building; this was in Gene's book. The day before President [John F.] Kennedy died, he was in Houston and he was downtown. We knew that the motorcade was going to come down the freeway to take him to Ellington to fly to Dallas, and we all went outside and watched the motorcade go by. Then the next day I was working, and Connie [R.] Turner at the time—she's Dunaway now—she called me and she said, "Maureen, President Kennedy's been shot." I said, "No."

She said, "Yes, it's on the news now."

I said, "Well, go break into that meeting and tell them."

She said, "No, you do it."

I said, "No, Connie, you heard it. You go do it."

She said, "No, you do it."

I went into the meeting that they were having upstairs in Gene's area, and I told them that the President had been shot. Of course, everybody went to radios. That was—it was just a day after you'd seen him ride down the road, and all of sudden he's gone. And he was the one who had directed us to do what we would do, and Kranz refers to that. Every chance he gets he refers to that, to Kennedy's mandate that we do this.

WRIGHT: You must have had a number of dignitaries and people that you met along the way during those early Apollo missions.

BOWEN: For a long time our office was right where we looked out over that sidewalk from the rear of Building 30 into the building where all those dignitaries would be dropped off. Some of the ones I remember were Connie Stevens, Hugh O'Brien. I even got Hugh O'Brien's autograph in the Control Center; I got Robert Culp's also, although he didn't want to give it to me.

WRIGHT: You convinced him, did you?

BOWEN: And, oh, man, what's the guys' name? He was on the Dobie Gillis show; he played Chatsworth [Osborne, Jr., played by Steven Franken]. I got his autograph. He was very nice. He was fun to talk to. And one you couldn't ask for autographs that I thought was really interesting was Prince Philip [Duke of Edinburgh, husband of Queen Elizabeth II].

We got to be in the VIP Room when a couple of Presidents, [Lyndon B.] Johnson, [Richard M.] Nixon came through. Of course, once people found out that that was a good way to do it—they didn't really control the VIP Room too much in those early days—it would get right crowded in there.

Then, during that first awful Apollo 13 movie, *Houston, We Have a Problem*, some of us were in that room milling around. You couldn't tell it in the movie, and I was just as happy that you couldn't, because that was an awful, awful, awful movie. That movie made people on-site very reluctant to agree to participate or even give some interviews. PAO [Public Affairs Office] will tell you today you don't have to talk to anybody.

Actually, in those early days when we first moved on-site they didn't restrict reporters. Now they are held back to Building 2. In those days, we'd come in, and you'd have to work your way through them to get into Building 30. I actually have had some say, "Hey, lend me your badge," which could get you fired in a hurry. I think it was that kind of almost harassment that ended up keeping them to certain areas.

WRIGHT: The Center was full of activity during the Apollo missions, but then the announcement came that they were going to stop. Can you tell us about the impact on you and your fellow co-workers when you learned that there was going to be an ending sooner than later to the Apollo Program?

BOWEN: You always hated to see a program come to an end. While you looked forward to the next one, there was always some worry about where your job was going to be; if you were going to have a job between programs. For the civil service people it became less of a worry, because you did phase from one program to another.

Over the years I used to watch the contractors and I really felt for some of them. They went not only [going] from program to program but from contract to contract, because in order to underbid, most of the time what happened, the guys who had worked themselves into a lowerlevel supervisory position, they were the ones who weren't brought over because it was their money that was going to help the other person underbid. So I used to hate to see the contracts move from one to another, because most of the people would be picked up; it would be a badge change. But there were always some losses that were sad. Sometimes it happened just as a person would be vested, just before they would have their time to count toward retirement. The USA [United Space Alliance] helped a lot of that, because USA had so many different jobs, also.

WRIGHT: Before Apollo closed completely, you assisted with ASTP and Skylab. How were those programs different from what you had been used to?

BOWEN: ASTP wasn't too different. Skylab, we had lots more recording technical capability. We didn't go over to the Control Center quite as much. In fact, in our experiments area, we were able to put in a system, like a phone mail; it was before we had phone mails on the office phones. A recorder had the phone hooked up for when people called in—you know, the PIs [Principal Investigators] would call in from different places wondering about the status of a particular

experiment. I would just go over and retrieve the tapes. So we didn't spend quite as much time in the Control Center, but you had more telecommunications, more computer capability that you were able to do things from your office location. Still did as much, just in a different way.

WRIGHT: Plus you had people now working 24 hours around the clock for supporting missions.

BOWEN: For the missions, yes, a few days before and a couple of days afterward, usually. Of course, once we started [Space] Shuttle and [International Space] Station, then you did have more and more of it. And of course, with the Shuttle Program, it was expected to have a launch every couple of weeks, and that didn't happen. Not even once a month, usually. Shuttle was slower than you expected, and it never did get up to what they had thought it would be.

WRIGHT: When we were doing research, there was a question about a teleprinter machine during Skylab. Did you work with those?

BOWEN: I didn't do teleprinter. In fact, I was thinking about that. I'm not even sure exactly where it was and who was doing it, but it was another organization, probably an info [information] systems kind of—the network controllers or somebody who provided that service.

WRIGHT: Let's talk about the technology changes. You mentioned the Ditto machine and just the evolution of the typewriter itself. What were some of the other areas of technology that you watched while you were there?

BOWEN: The change from the very first word processors to better word processors to PCs [personal computers] to better PCs, smaller; the disk space, the computers got smaller. When you think back to the early days when you had a real-time computer complex with mainframe after mainframe after mainframe, and you have a small machine now doing what one of those huge machines does. I remember the first guy to have a handheld calculator, they were \$400 or something, I think, at the time, the scientific [calculators]. Now you can buy calculators for a dollar. I mean, all of that [technology] brought about primarily by the space program and the needs of the space program. The computers in the Control Center are so small now.

One funny thing, in the old days you had all those handbooks, and they would be all over the place. One of the justifications for the new Control Center was that with all this modern technology, you wouldn't need all that paper that you saw. That's always a transition for the guys, especially, because they had their handbooks. One day Jim [James J.] Shannon came by my office, and he said, "Come on, let's go."

I said, "Where are we going?"

He said, "To the Control Center."

I said, "What are we going to do."

He said, "Headquarters just called down, and they said that the TV's showing all kinds of books on top of the consoles, and they want them taken out."

So we went over and we told the guys, "You've got to move this stuff. Put it down." We ended up getting these bookcases to place at the ends, because Headquarters doesn't want to see stuff laying on top of the console. It's very crisp, you know, the TV of the FCR. They have gotten more and more used to looking at info on the monitors. They don't refer as much to the paper copy.

But I don't care how good your system is. Every once in a while a computer is not going to be doing what you want it to, and you've got to go back to paper for some reason or other. One of the big justifications for computers was going to a paperless environment. Well, I haven't seen it, and I don't expect to see it anytime soon. For all this stuff that you have, you can't get enough memory to take care of it without costing an arm and a leg, so you're still going to have your paper somethings.

WRIGHT: We talked earlier about spending most of your adult life at the Center. Why did you choose to stay and not go look for another job at another place?

BOWEN: Oh, I couldn't imagine doing anything else. I was doing what I liked. I was successful. Just watching history in the making, the people I worked with; I just couldn't imagine having that same satisfaction anywhere else.

WRIGHT: Did much change when the Center started shifting towards supporting the Shuttle activities? Did much change for you?

BOWEN: The biggest change for me was doing mostly administrative kind of things and not being in the middle of the technical stuff. In the old days, doing all that typing of all that technical stuff, you were aware of what was going on technically and what was even handier, you knew the acronyms. You ask any new people to the site, and they say, "Good Lord, it's like a new language." Losing some of that was a change for me. I had to start looking up what is this, what is this, what is that. Especially in more recent years, because people at Headquarters didn't know what all that was, you had to be sure that you spelled out every acronym, even though they wouldn't even know what that was in a lot of cases. That was the biggest change for me.

I was working more with management by then, the supervisors and managers, not with the guys. It wasn't a bad thing. It was just a different level of work.

WRIGHT: Through your life you were a female working in a male-oriented environment. Did you ever feel like there was a difference of how they treated you?

BOWEN: No.

WRIGHT: Do you feel like the respect level was equal?

BOWEN: Oh yes, always equal. You know, I found that the guys always looked out for me. They really looked out for me. Even when it was a coarser environment than it is now, I never felt disrespected, never. As I say, it was like family. They were all my big brothers or dads or whatever. To this day when I see like Gerry Griffin, Gene, all the guys—when Phil [Philip C.] Shaffer died, one of the first notes I got back was from Neil Hutchinson.

I didn't feel that I finished the Neil Hutchinson story. A few years after that, Hutchinson was named Manager of the Space Station Freedom Program. He needed an Admin [Administrative] Officer, and HR asked me, "Would you be interested?"

I said, "I'm really happy where I am. I don't see any need to change."

They said, "Well, could we just put your name in just as a possible?"

I said, "Okay."

Well, the next thing I know, Hutchinson went to HR, who were the middlemen between [Clifford E.] Charlesworth and Kranz, and asked for me to be his AO. So my telling him in those days—guys don't want yes people. They want people to tell them how it is. He asked for me to be his AO, and both Charlesworth and Kranz said not only no, but, "Hell, no." [Laughter] And that didn't bother me at all. In fact, I was glad later, because that program was very short-lived.

WRIGHT: Station does have a history of its own, doesn't it?

BOWEN: Boy, doesn't it. To this day Neil is one of the first to respond to any request.

WRIGHT: What do you think has been the most challenging aspect of what you had to deal with when you were out at the Center?

BOWEN: Mostly, I guess, giving people the correct information, because there's a lot of stuff out there, and sorting through and really finding out what the correct information is in an admin world.

WRIGHT: What do you feel to be the most significant accomplishment? If you have to look back, what are some of the things that you're most proud of that you were able to do while you were there?

BOWEN: Actually, the thing I'm proudest of, and it was part of my job—it was different in that, oh, I guess it was probably 20 years ago, and the Center was trying to automate things. Rich [Richard H.] Campbell, who was the computer person for HR, put out a note saying, "We're building this administrative program. We're trying to automate some of the processes." He sent it to the Directorate AOs and said, "If you would like to participate, let me know now."

[Laughs] "I'm in." I became a part of a team. Rich was the HR data owner. Lloyd [R.] Erickson [Jr.] in Information Resources was the data building person. They had a very small contract. It was just three or four people at any time, and so you had Rich, the data owner; Lloyd, the data builder; and the contractors trying to program this, who had no idea how the government works. So I'm the data user in most parts.

The program, JSC MIS, the JSC Management Information System, was programmed in NOMAD, and was hosted on one of those mainframes that was here. You know, NOMAD is pretty much a dinosaur language now, but that was, and I'll tell you, today still the best data program I've ever seen, and we were a killer team.

At some point, maybe 10 years ago, they moved that mainframe to [NASA] Marshall [Space Flight Center, Huntsville, Alabama]. They wanted to get rid of mainframes, because they were expensive to maintain. I told anybody I could get to listen over the years, "Hey, look, I don't have a problem with that, as long as you can give us something that will do the same thing." I know computers, and I know if you get the right one and you get the right people doing it, they can do anything. Well, they kept that mainframe going, and it's still there, but they cut off our access to it about—I've been retired a year, and it was at least a year before that, so it's two to three years ago. It was January of 2005, I believe. See, they had to renew our security access to it every January, and they didn't renew it.

They decided—"they" being the Info Resources, and I imagine that included the CIO [Chief Information Officer] Office; and you know all that is back into IRD [Information Resources Directorate] now—that they were not going to continue the mainframe. By then there was only one of the programmers left. Rich had left JSC several years earlier, retired. Lloyd was close to retirement. I could retire anytime. There was one of the original programmers, and they had her on a temporary basis; she just logged her hours.

Well, even at that time HR had hired their own contractor, who was running stuff for them, and I don't know what kind of thing he was using, but it was so much more difficult. I said, "You can do this in JSC MIS. It's bing, bing, bing, bing, bing." The programmer, she even gave them a lot more time than she charged, trying to help them through it. When they found out that this system was out there, they leaned toward it. But her company was squeezing her time down, and I kept saying, "We've got to keep it. We've got to keep it."

The IRD eventually hired a woman—who has a heart of gold—who really wants to give the user what the user needs, but she built reports. She called me one day and she says, "Do you know what a TIG Report is?"

I said, "I sure do. I created it." I said, "Here, let me see," and I pulled out a sheet.

She says, "Oh, thank goodness." She says, "Everybody's asking me for this TIG Report, and I didn't know what it was."

I said, "It's 'Time in Grade," you know.

She built her report, because they were building it in a more modern language, Sequel, and I don't know whether Sequel can't do it that way or whether they just didn't want to put that much effort into it. She built reports. In JSC MIS we went in and we said, "We want this, this, and this in this format," and bing, it came out just the way we wanted it. Her report was just a report that we had to download into [Microsoft] Excel or something else in order to manipulate it. It created more work for the user. Once we would tell her, "Well, we like this report, but we also would like to see it like this," she built a hundred reports for us with the same data, whereas in the old one, you just chose the data and the format, and you were in.

Then they came out with the new Brio System that is administered by the Department of the Interior, as is the Labor Program. Brio, if I had been 15 years younger, I would have gotten into it. It is a massive database, but you're going to have to learn it and learn how to use it, etc. I already had a system that worked, and I found out before I retired and afterward they were finding some errors in Brio.

I understand today that many of the reports that I built in JSC MIS are still being used throughout the Center, and they're trying to come up with ways to give the people what they want. That's what I feel the best about. I treasure all those other things, but I felt that was a very, very long-term, productive effort, good not only for me, but everybody on-site. I had women from all over, and what was beautiful about that was if I built a report the way I used it, and then one of my guys would transfer to another directorate—you know, they're moving all around—and they'd say, "Hey, I want this kind of data," and their secretaries would say, "I don't know. What is this?"

They'd say, "Well, call Maureen." I could ship that format to them, and then when they ran it, it would put their data in it. I don't know whether they'll either keep building on what they have, or whether they'll try and get the Brio thing working. As I say, that's what I feel the best about. I felt it was most useful to the widest majority of people. WRIGHT: Sounds like it is. Well, I think, if it's all right with you, we'll stop here for today, and give us a chance to come back and visit again.

BOWEN: Okay.

[End of interview]