An Oral History

with

Wanda Williams

John C. Stennis Space Center
History Project

Interviewer: Samantha Yeager

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This is an interview by the Stennis Space Center History Office. The purpose of this interview is to document the story of key personnel during the Apollo and the Space Shuttle Main Engine programs at Stennis. The interview is with Wanda Williams and is taking place on June 19, 2009. The interviewer is Samantha Yeager. Also present is Jennifer Melton.

Wanda Williams: Wanda Williams, Applied Geo Technologies (AGT), engineering technician III.

Samantha Yeager: Where were you born?

Wanda Williams: In Picayune, Miss.

Samantha Yeager: Would you like to tell me about your personal background—where you reside now, about your parents, your marital status or any children you may have?

Wanda Williams: I have two sons, Terence and Sergio. I am currently divorced. My parents are deceased, and I still live in Picayune. I am a member of Weems Chapel United Methodist Church. I am co-chairperson of the Martin Luther King Day Committee and belong to the Methodist Women Organization.

Samantha Yeager: Have you always lived in Picayune?

Wanda Williams: I lived in Jackson, Miss., for a brief time. Other than that, I have always resided in Picayune.

Samantha Yeager: Would you like to tell me a little about your educational background? Where you went to college or any degrees you may have?

Wanda Williams: I have an associate's degree in electronics technology from Pearl River Junior College then; now, it's Pearl River Community College.

Samantha Yeager: Tell me about any other jobs you may have held prior to this position with this agency?

Wanda Williams: I have always been a tech with each contractor. I started in Building 8110, and I am still in Building 8110.

Samantha Yeager: How many years have you been here?

Wanda Williams: Thirty-one.

Samantha Yeager: How did your prior work experience help you land the position that you have now?

Wanda Williams: It didn't. It was my education. Prior to this, I worked at a place in Picayune that we called the blanket factory. It was Neco Manufacturing. We assembled electric blanket controls. Then, I went to Pearl River College and got the degree in electronics technology, and I came to work here.

Samantha Yeager: What led you to come to work here?

Wanda Williams: Basically, this was the best facility that you could use your degree—here or Michoud. I still thank God that I was able to get a job here, instead of having to drive to Michoud every day.

Samantha Yeager: Can you describe your first impression of the test site here at Stennis?

Wanda Williams: Living in Picayune, I had heard about it, but had never seen the "site" as it was called. To get here and find out about the work that was taking place here and seeing the towering test stands was awesome.

Samantha Yeager: What significant event or one event that stands out in your mind while working here at Stennis?

Wanda Williams: I can remember the first time I heard and saw the smoke of an engine being tested. It ran the entire length of its test without aborting. It was thrilling, thinking that my work helped to make it possible.

Samantha Yeager: What are some of the major changes that you witnessed over the years working here?

Wanda Williams: I guess basically the cutting of the funding over the years. This has lead to cutbacks in some anticipated projects.

Samantha Yeager: This oral history focuses on the 40th Anniversary of the Apollo Program and the Space Shuttle Main Engine Program. We'll begin by focusing on the 40th Anniversary of the Apollo Program. Will you please talk about your experience or area of expertise or your role as it relates to this program, the 40th Anniversary of Apollo?

Wanda Williams: I wasn't here.

Samantha Yeager: What year did you start here?

Wanda Williams: May of 1978.

Samantha Yeager: What do you feel were some of the achievements … testing other engines as we look back on the best practices used?

Wanda Williams: We had a commitment to ourselves to always do top quality work and to do it safely. Every time something changed, our main priority was to have the best quality and do it safely. We were going to carry that top quality work and working safely from one program to another. Quality and safety was and still is job one.

Samantha Yeager: With the Constellation Program, NASA will once again journey to the moon, what do you feel will be the benefit of future lunar explorations?

Wanda Williams: I think that is something that we need. It's good to explore other avenues and to know what's available if something happens to the Earth. We need to know that there's maybe somewhere else we can start over, a standby planet maybe!!! *[Laughter]*

Samantha Yeager: On the Space Shuttle Program, can you tell me about your area of expertise and your role in that program?

Wanda Williams: Our main mission was and still is support of the test stands before any other customers we may have. Calibrating and repairing the test equipment coming from the test stands, and making sure that the work we do is A-1 plus.

Samantha Yeager: Can you tell us how maybe you first started to work with the Space Shuttle Program to where it evolves to right now?

Wanda Williams: We still today maintain some of the old test equipment that was here when I first started working. As technology evolved, some of the test equipment has been replaced with basically the same pieces of equipment, but with ones that can do the same job better and with more accuracy.

Samantha Yeager: So is that the position you started in?

Wanda Williams: Exactly, I'm still the tech.

Jennifer Melton: Can I ask a question? The gear that you calibrate is that like engine parts or stand parts?

Wanda Williams: No, it's not the engine parts or the stand parts that we calibrate, it's the test equipment such as strain gauges, amplifiers, etc. that is hooked up to the engine and it sends data back to the TCC (test control center) to let it know what is going on within the engine.

Jennifer Melton: The stuff you use to tell the engine to go.

Wanda Williams: Exactly.

Jennifer Melton: You've been doing that same stuff all along?

Wanda Williams: Yes.

Jennifer Melton: So then the test conductor can be looking at that equipment doing the test?

Wanda Williams: Yes.

Samantha Yeager: Reflecting on your experiences with space shuttle main engine testing, what are the best practices or sound practices that benefited you during your tenure with the program? What would you recommend to use, the best training equipment and a new generation of employees …?

Wanda Williams: Would you repeat that please.

Samantha Yeager: Reflecting on your experiences with space shuttle main engine testing, what are the best practices or sound practices that benefited you during your tenure with the program?

Wanda Williams: The best practice is safety. That was and still is No. 1. I'll tell anybody that you should work safely, and be a good team player. If you don't have a good team, it just doesn't work out. I'm proud to say that we have a family atmosphere in the area where I work, and we look at each other as family. That makes wonderful team work, and we can depend on each other. It's no problem and everybody's happy.

Samantha Yeager: What advice would you give to the next generation of employees who were trying to come in and do the same things you are?

Wanda Williams: To go to school and get the training. Learn all they can learn and work it. Work it to the best of their ability and move on up. *[Laughter]*

Samantha Yeager: What do you feel is the most significant achievement during the years of the space shuttle engine testing? Is there one huge achievement— maybe a certain test went off; something maybe … everybody thought wasn't going to be so easy and then pulled it off after a SSME testing or something like that.

Wanda Williams: There have been times when we were really nervous when they started testing an engine and then aborted it. Then you say, "Oh no! Wonder what happened?"

Samantha Yeager: Can you remember the first time the SSME test that went well after a couple of failures?

Wanda Williams: What year? I can't tell you. I can't remember the years.

Samantha Yeager: Do you remember how you felt?

Wanda Williams: I know I felt good. Once you had these aborts and then later on it comes back and you hear that roaring that goes on and on and you be like, "yes, yes." You feel exhilaration. "You be like, wow! I'm glad of that."

Samantha Yeager: Can you talk about how the atmosphere was at Stennis following the Challenger and Columbia accidents?

Wanda Williams: I remember it was a real sad time for the lives that were lost. I feel that the people who worked directly with the engines on the stands felt a lot of hurt and prayed that there was nothing [they] did wrong that made the engines fail.
I also remember the uncertainty of whether we would have a job while they did the investigations into what caused the accidents that led to the shuttles blowing up. You also pray that it never happens again.

Samantha Yeager: Do you think others around here at Stennis felt the same way?

Wanda Williams: Yes, they did. A young lady that works here and who came to the church where I was working the Saturday morning of the Columbia accident was crying as she told me that the shuttle had blown up. I hadn't heard it yet as I had gone out to the church before it happened. "It blew up" I said, "Oh, my God!" We all talked about it at work that Monday with a great sense of sadness over the lives that were lost and the feeling of uncertainty about possible job losses also.

Samantha Yeager: Can you describe the mood that was at Stennis that led up to the Return to Flight?

Wanda Williams: We were really excited that we could return to flight. It's like being told that you have job security again and that the accidents that had happened were due to something mechanical and not human error per se.
You don't want to think of them not continuing the journey—you know the explorations—because it's just not all about having a job; it's the challenge of something new and knowing that you are a part of making it happen.

Samantha Yeager: As you know, NASA plans to retire the space shuttle in 2010, what do you think this means for Stennis Space Center?

Wanda Williams: Well, I can only hope that they will have something to back up the SSME program with as soon as they retire it because, without engine testing, I feel the

future will look very bleak work wise for Stennis and all of the contractors who depend on some type of space program for jobs.

Samantha Yeager: As the program nears to the end, how do you envision Stennis' role and NASA's future?

Wanda Williams: I'm still hoping that NASA will get funding for the smaller engines that they have plans for and that Stennis will always be the site where rocket engines are tested. I want them to go back to the moon and beyond. I really truly do. Like I said, just in case we need a standby, *[Laughter]* a standby planet! *[Laughter]*

Samantha Yeager: Is there anything significant when you reflect on your work here at Stennis that stands out in your mind about an event that you thoroughly enjoyed or something that has happened?

Wanda Williams: I remember when I first got here, they tested an engine and how the people in the test stands got to go home. *[Laughter]* They had to let them go home back then and now that is unheard of, showing how many advancements have been made since that time. I do remember how our windows used to rattle in Picayune when they would test the engines. I remember when older people would say, "Every time they send that rocket up, it messes with the weather." *[Laughter]*

Samantha Yeager: Anymore little stories you would like to share like that?

Wanda Williams: No. I think that's it. I would like to say that I have truly enjoyed working here these 31 years, and it has been wonderful. A lot of people have come and gone within my years. When I started, there were basically three big contracts—the Lab Services contract, I think it was Pan Am that had the FOSC services contract and Rockwell/Rocketdyne the test stands. It was like NASA, the test stands, CSC and Pan Am. Now you see that there are numerous small subcontractors.

Samantha Yeager: In your position, do you work–you don't actually work near the stands, you work …?

Wanda Williams: I work in Building 8110. If they call us then we go out to the stands to do in-house calibrations or whatever they may need us to do an outside job. Our job has always been support of the test stands. As a matter of fact, in the early days in '78 when I first started working, we fabricated cables for them. We fabricated the cables at [Building] 8100, took them out to the stands and crawled around the floors of the stands hooking up the cables.

Samantha Yeager: Do you remember the first time you ever saw one of the test stands and what your impression was?

Wanda Williams: Oh yes! I was like wow! I didn't know it was like this. *[Laughter]*

Samantha Yeager: Which one was it? Do you remember?

Wanda Williams: It was the B stand. We were hooking up those cables that we had fabricated!!!

(End of Interview)