

Childhood Interest in Airplanes

I'm a Philadelphian I grew up in Philadelphia. Uh. Grew up in the 40s and 50s in Philadelphia. Uh went to Philadelphia public schools. Uh I was very fortunate I had great parents, uh mother who was a schoolteacher and a father who was a mechanical engineer. And so I grew up in a middle class neighborhood and um, as a kid got interested in airplanes. And uh decided probably in junior high school that I wanted to be an aerospace engineer.

Big Change

I mean I'm a big time inner city, grew up in row houses, sort of situation I don't think I ever came to the campus before I showed up as a freshman. And um. Uh so it was a big experience it was a big change for me.

College Was Not Optional

I was ver-I was very fortunate I am a uh third generation college graduate. Uh my grandparents went to college, so I grew up in a nei-uh I grew up in a household in which uh you were expected to go to college. We and uh you know it was very interesting because I still remember the uh scene with my mother uh when I went to Penn State. Um. Uh I was leaving the house to go to Penn State and my mother stopped and said, you know we never really asked you if you wanted to go to college. And I had to point out to mom that uh I really wanted to be an aerospace engineer, and I had to go to college to do that, so that's why I went to college. But uh, no I uh grew up in a household where education was real important. I was also very fortunate in the fact that I had uh a father who was a mechanical engineer, so I didn't think anything strange about being an engineer. Uh I had good role models. And I also grew up in a household where I felt that I could be anything I wanted to be. And it was an interesting time because it was the 40s and the 50s and so forth, so you still had the civil rights movement going on in the south and all of that sort of stuff. But I grew up in an environment where I didn't see all of that, and uh I felt that I could do anything I wanted to do, and didn't find, didn't find any problem at all in being an aerospace engineer I thought that would be something that I would enjoy doing.

Penn State Was a Launch Pad

I tell people all the time that uh, Penn State was the uh, the launch pad for me in a very exciting career. Uh. When I came to Penn State um, ROTC was mandatory. Uh, that caught me by surprise. Um when I came to Penn State I wanted to be an aerospace engineer and work out in industry, and had to come to Penn State I had to do, deal with

ROTC. Uh and that was interesting in itself, and I made a decision while I was at [clears throat] at Penn State that I wanted to go advanced ROTC which still, I still question why I did that but that worked out very nicely. Uh. But it was a very exciting experience, just you know, just exciting experience I tell people all the time, um, when I came to Penn State I wanted to get a degree in aerospace engineering. When I left Penn State, I had a degree in aerospace engineering, I had a commission in the air force, I had gotten my private pilot's license up here as part of the ROTC program, and I married a woman who I met as a freshman here at Penn State so, Penn State was uh, a significant uh uh uh, significant institution for me.

Struggles at Penn State

I struggled through four years at Penn State I mean there wasn't a lot of social support here at Penn State, and so you were really on your own and uh, in a pretty tough curriculum. Uh and I had to be able to study and all of that sort of stuff. And I kid people all the time that you had all these distractions up here at Penn State, and one of the big distractions was you had 12,000 single women up here at Penn State. So you had all of that going on so it was uh, it was a challenging four years, and I showed up uh as a uh, um, um, student high school student who had never dated, who had never been on his own, and when I left I felt as if I was a mature adult uh getting married, moving on to an interesting career.

Failed Freshman English

I showed up at Penn State uh, and I failed uh freshman English. Uh my grade point average in my freshman year was less than a 2.0. So I spent four years trying to work my way out of a hole at Penn State you know, and interesting enough uh, my best year at Penn State was in my senior year because it took me four years to figure out how to study, and all of that sort of stuff and various courses. So it was a, it was a tough time, and uh uh because I was an African American you know there were very few African Americans on the campus, but also that you were really on your own when you came to Penn State, there really was not a lot of support for students you showed up, you went to class in order you know you had to make it on your own. But uh, it was a challenging experience and uh, I thought in the end it uh gave me a lot of grit, uh, that helped me throughout my career.

One of the Few

It was interesting you showed up on the campus, campus had 25,000 students, and I think there were probably two or three hundred African American students. You know, and and there wasn't uh a central place for them so we were sprinkled out all over the

campus. Uh, the only time you really congregated with African American students is when you went to the frat. The other thing too was the fact that I was in engineering and uh, there were really very few engine black engineers, students that were going through the engineering program and I know in the four years that I was here, I was the only guy only African American in aerospace. And if my memory serves me right I mean there must have been maybe four or five African Americans in the whole engineering program while I was here at Penn State.

Becoming an Astronaut

NASA hadn't hired astronauts since '66. So they were looking for astronauts to fly this thing called the space shuttle and they were still developing this space shuttle thing. And they realized that they needed more astronauts cause when we came into the astronaut office in uh, in '70 there were only 28 astronauts in the office, and we were a class of 35, so they really more than doubled the size of the astronaut program. And uh they were looking for uh, astronauts who were not only test pilots but who were scientists and engineers because they wanted pilot astronauts and mission specialist astronauts, and I applied for both positions the pilot astronaut and mission specialist astronaut, and got selected as a mission specialist astronaut. So uh we got uh, notified in January of '78, in February they brought our class together and so I got to see who the other members of the class were. There were six women in the program, which was very interesting. There were a couple of other black astronauts uh Fred Gregory and Ron McNair. We had um, fifteen test pilots and uh twenty mission specialists, test pilots sort of knew each other. Uh, the mission specialists we were all strangers to each other but it was a great class it was a great experience. And we all had an opportunity to fly, and we in many cases we stay, we stay in touch so it was uh it was a great experience coming in.

First Flight

NASA started naming crews. The first crew and the second crew and the third crew I still remember the morning that uh, they told me that I'd be flying on [STSA]. Which was very interesting because which was the eighth flight of the shuttle. I came to work on Monday morning, astronauts get together for a Monday morning meeting among the astronauts, uh at the end of that meeting the head of the astronaut office John Young came up to me and said um, we need to, you need to go over to the headquarters cause the big cheese wants to talk to you about something or another and I said okay, you know. And I remember going over to uh building one, uh, joined up with a couple other people who were all wondering why we were all going over to building one. And uh at a meeting they told us that we would be um, the crew for STSA and I think all of us were thrilled you know, we had been in the program for three years and we wanted to fly so, it was exciting.

First African American in Space

I knew, uh, when I came into the astronaut program that one of the three of us myself, [Ron McNair], Fred Gregory would eventually be in this role of being the first African American just like uh the six women who came into the program when we did, one of them was going to be the first woman to go into space. And so my goal was to really just make a contribution I really didn't anticipate being the first African American in space, I didn't push for that uh, but I was pleasantly surprised by it and uh, it was a lot of uh publicity upfront, uh associated with it and-and I sort of tried to keep it under control so it doesn't get out of hand.

More Missions

In '85 I flew on a CS uh 61 alpha. Took a laboratory in space, 76 different experiments. Ran a laboratory because I was a senior mission specialist on orbit, with three European astronauts and a US Bonnie Dunbar American astronaut. So that was lots of fun on Challenger so it was a great mission. Uh we got down. Unfortunately in '86 we had the accident. Um. I lost uh some good friends in that accident. Sort of made a commitment to, um, try and stay around long enough to make sure we flew safely again, did that again. And then in '91 flew a third time. It was a uh, STS39 it was a military flight. Supported star wars, we studied the aurora earth glow, we deployed a little satellite and retrieved it from on orbit, eight days on orbit very busy mission. It was also very exciting. Uh after that flight I thought I would retire but before I could really make up my mind they put me on a fourth flight. Uh which was a classified DOD flight uh and uh December of '92.

Teasing the Rookies

On flight number three uh, myself and the commander [Mike Coats] were flying for the third time. Uh we had five rookie astronauts on the flight with us. And we would go to training and they would all be all excited you know about training to fly in space eating space food, how did this and how that worked, and I remember Mike Coats and I were saying oh this is another [mumble] or another training we've done this a couple times you know and I would kid the rookies and I would say hey don't get too excited, this is a business trip we're only going to be out of town eight days this is just a business trip you know. I would kid them all the time this is a business trip, don't worry about it this is a business trip. So I recognized from my point of view that uh, the awe I had seen it all, and so the awe was still there but it wasn't as strong as it was on the first flight.

Being a Role Model

I feel as if it's my responsibility not only to be a role model, but also to encourage uh other people to get into the same field that I'm I'm into. I'm really into encouraging

minorities to get into the science and engineering career field area. And it was really interesting for me because I got into that field, I had good role models, I was shocked to get in there and discovered I was one of a minority I mean I still remember being at Penn I mean at being at in the air force, running an engineering branch and a laboratory, and being one of three black supervisors in a crowd of five thousand engineers and scientists. So uh, I take uh a great deal of uh, uh, you know importance in in my role as a role model hopefully encouraging others to go into science and engineering. And I see that improving but at a very slow rate but then that's sort of what my mission is right now to, to do that.

Hard Work, But Good Times

People sort of assume that uh, things were easy for me. No. Uh that I did well in school and I was a brain and all of this. No. Um. That my success really was based on a couple of really very interesting characteristics one, I found something that I really enjoy. And then two I was very persistent in chasing it down. And and if you take a look at my career, you can say I can easily say I'm an aerospace engineer. I've always did something in aerospace constantly worked in aerospace and, and I was very for-I was very fortunate in the sense that I knew who I was. And I was very persistent with reference to chasing down what I really wanted to do. And I kid people all the time about the fact that they pay me to have a good time and I've been having a good time for the last thirty to forty years doing things that I enjoy doing.

NASA Pre-first Flight Press Conference Highlights

NASA First Flight Highlights

Phone Call from the President