

027 - Art of Engineering - Wally Funk

Denise:

We've been welcomed into the home of Wally Funk

Wally:

I'm so glad you're here.

Denise:

I'm so glad you insisted that we do this podcast in person. We're both alums of Oklahoma State University, and that's how we made a connection. But I just want to start by mentioning a few things about Wally, and then we'll go into some finer detail. So this is what I learned in reading your book, Wally. You were a pilot at 17, A flight instructor...

Wally:

Well, I was probably a lot younger than that. Like a 14 or 15

Denise:

Flight instructor at 21. For the Army!

Wally:

Yeah, for Fort Sill.

Denise:

Bought an airplane at 23, 1 of the Mercury 13. And the youngest candidate, the first woman inspector for the [Federal Aviation Administration](#). Roger and first woman inspector for the [National Transportation Safety Board](#). World Traveler at 26.

Wally:

Yeah.

Denise:

Fellow alum of [Oklahoma State](#).

Wally:

I have the same camper here that I was in over there to the garage.

Denise:

That was awesome. Trip to space in 2021, which we'll go into in finer detail. An author of a book called [Higher, Faster, Longer](#), which is a treasure

Wally:

I always go by that: higher, going higher, faster, longer.

Denise:

A treasure trove of Wally's life. Lunch at the White House during your lifetime.

Wally:

I did several times.

Denise:

Sharp Shooter and Ariel Acrobat. And I wanna say this, fearless. You've done so many things...

So, okay. Back to how you started flying, which was,

Wally:

Well, I started flying when I was four or five years old. I mean, there was some pictures here of it. I was, two mother had me at the airport and I went over to that DC-3 and I checked the nuts to see that all the nuts were tight on that wheel and then the next wheel and the next wheel. So I was around aviation ever since I was 2 on and wanted to always fly. I think I started flying a lot earlier when you reckon than you talked about. Okay. But I, I think I soloed it at 14 or 15.

Denise:

Wow. And your mother was an inspiration

Wally:

She was so fantastic.

Denise:

So she, what was her,

Wally:

She wanted to do things when she was a kid, but her parents were so organized for doing proper things that the things that she wanted to do were not proper. So she let me do all the stuff that was not proper and let me do it. I dressed in Levi's, a t-shirt or a open shirt, and other than having to go to Stephens and I had to dress correctly there for school except after school. And I want you to have a picture of her. She is so beautiful. I love her. I talk to her every day, two or three times a day in that picture.

Denise:

So she had an, her first experience of flying at 16.

Wally:

Well, I can't answer that, but I took her flying when I got my license and that was very young.

Denise:

And she also in spoke to one of the instructors at Stephens and pointed you toward the School of Aviation. Oh yeah. And then you went on to Oklahoma, our alma mater At Oklahoma State where you got the instructor's license and went from there to teaching. How many people have you taught to fly?

Wally:

Thousands of thousands. Thousands of kids. I've got some of the pictures around here, and then I've, I've forgotten their names unfortunately. But I, I was so lucky to be in a place where I could teach, and that was at Oklahoma State. I did everything I could and all the instructors and all the teachers were all behind me whenever I wanted to do something for Oklahoma State. It was fabulous school.

Denise:

And still is.

Wally:

It is!

Wally:

Hadn't been back there for a couple years,

Denise:

So. Well, and I was just, I was just telling Wally when we got here this morning that I had found her in the latest edition of the Oklahoma State Alumni Magazine, where one of your instructors who was a dance instructor still remembers you from all that long ago, time ago. And she said you preferred flying over dance.

Wally:

Of course! Oh, that is 60 years ago.

Denise:

So a lot of the podcasts I've done, Wally, have been in an effort to inspire young women and minorities to do things that women haven't typically done.

Wally:

Well, women have done everything now.

Denise:

Yes. Well, yes.

Wally:

But see that nobody was ever in an engineer or a head of a school or organization like they are today. And I didn't wanna do that. I just wanted to be the head instructor all through my life.

Denise:

What do you think made you so accepting every place you've been?

Wally:

Because I always had a thought of where I'm going. It was always beyond somebody else's thought.

Denise:

And so, one of the things I read in the book, and I'd like to share it with our audience, is

Wally:

Show the front cover.

Denise:

Here's the front cover. The only thing a woman needs to compete in a man's world is ability. You had it in spades. And you also come back to the five A's, which is attitude, awareness, anticipation, appearance, and acknowledgement.

Wally:

And ability

Denise:

And a lifelong curiosity.

Wally:

I had a great education and my parents was so fantastic to me. They let me do anything I wanted do right there in Taos.

Denise:

But you took it way beyond that. Well, yes. You're an , Wally, you're a truly an inspiration. So all of the testing that you did for the Mercury 13, one of my questions about how that all came to be was what was Dr. Lovelace's interest in testing women back in the sixties?

Wally:

That is correct. And I stood out because I said I wanna do this and this and this and this, and for how long can I do that?

Denise:

Yes.

Wally:

None of the other girls said that.

Denise:

Really?

Wally:

I was the only one that said, now, now, now, longer, longer, higher, faster, longer.

Denise:

Well, and the, and the one test that stood out to me was in the, the floating isolation chamber.

Wally:

Probably. It wasn't floating. It was, it was dead. But it had me floating like I was floating. Yeah.

Denise:

And you stayed longer than anybody.

Wally:

Yeah.

Denise:

10 Hours, 35 minutes.

Wally:

It was no problem. You just, you just sat there and it was, you're supposed to be in space. And I just put my mind into space and seen all the things you would see in space, and it was fantastic.

Denise:

And the water temperature, I just thought, I, I just found that fascinating. The water temperature was exactly the same temperature as your body temperature. Which was why it made it easier. I'd never heard of that test. That was, that was fascinating to me.

Wally:

You know what? I don't even think they do that anymore. It was just back then.

Denise:

Well, you all the 13 women of the Mercury 13 passed all of the tests. Many of you scored higher than the men who were tested at the same time.

Wally:

And I don't think there's many of the girls, only Janeiro was left and all the rest of 'em are gone.

Denise:

And Wally. Well, you were the youngest.

Wally:

Yep. What, so 20 20, 21, 21 or something like that.

Denise:

And then two years ago, Wally, you finally got to go to space. So tell me how that came to be

Wally:

With...

Denise:

Jeff Bezos.

Wally:

Jeff Bezos, and they, they came here and they interviewed me and we wanna send you to space. I thought I was gonna go a whole lot further than where I went. I think I only went to three or 4,000 feet, but I'm not sure. Is it written somewhere?

Denise:

I didn't see that.

Wally:

Okay. So yes, I felt it in space. I had zero gravity. I was wonderful. I could, I could float stuff in the air. Oh, it was absolutely fantastic. And I could see, oh no, I couldn't see the earth because it was all overcast overcast day, and I couldn't see the earth. I wanted to see the roundness of the earth and see states and countries and stuff.

Denise:

What was the most, was there anything surprising about it?

Wally:

No. I had, I had felt it all. And, and whether it was a talking or in a filming or something. Yeah.

Denise:

So you had been in several opportunities to actually train for being an astronaut. So you went to Russia.

Wally:

Affirmative.

Denise:

And you also went to Huntsville to NASA and did some testing there.

Wally:

I did a lot of testing. A lot of places. I can't remember right now.

Denise:

Okay. So Russia just sounded fascinating to me because you got to meet the, the woman.

Wally:

So many wonderful girls. Yeah.

Denise:

Yes.

Wally:

Valentina Tereshkova

Denise:

Okay. There she was. So back to the space flight in 2021 because you worked for years to be able to get to do that.

Wally:

Oh, I, I had the thought, but working, I was a flight instructor, so I was just teaching. I probably didn't know the people to contact because the people were not doing it yet.

Denise:

So what are your thoughts about that whole private space flight going forward?

Wally:

Well, I thought it was, I could do anything. It's just that they hadn't talked about it yet.

Denise:

Yes.

Wally:

It was still maybe in somebody's mind, but I always wanted to go further, faster, longer.

Denise:

Yes. Yes. And you, so how did you make the connection with Jeff Bezos and the [Blue Origin](#)?

Wally:

They all contacted me. Somehow.

Denise:

They found you?

Wally:

Yeah. I didn't find them. They found me.

Denise:

Well, because you had all this experience and

Wally:

And Bezos came right here and stood right there and interviewed me.

Denise:

And then you got to go.

Wally:

Of course. Not coming here. If I can't go now, where are you gonna tape me?

Denise:

Well, we're at least gonna go to lunch.

Wally:

I wanna go to space.

Denise:

Okay.

Wally:

Everything around here has got space on it, doesn't it?

Denise:

Yes.

Wally:

Like that little, my trophy over here.

Denise:

What is, because you were a chief pilot in at several

Wally:

Oklahoma State Flight Schools

Denise:

...as a flight instructor, what is a chief pilot?

Wally:

What's a chief pilot? Yes. I oversee all the students, what they're taking and, and how good are the instructors? They're teaching 'em. Sometimes I'll get a, my, my instructor didn't teach me so and so and so and so, or, or I would find out why and then get somebody to take that place. Okay. I always wanted the best people.

Denise:

Great. And then you've traveled all over the world as a speaker and as a safety proponent for flying. So tell me about that.

Wally:

Oh, you got 25 hours? Being a safety person is something that's in my body and I knew how to do it, and I just did it. I can't explain any more than that. I just knew what I wanted to do and, and did it.

Denise:

Well, you're also an inventor and I'm gonna, I'm just gonna hand you something and have you tell us about this.

Wally:

Don't forget the shirt there though.

Denise:

We'll get that out.

Wally:

Okay. This is the Wally Stick. The Wally Stick is something I made when I was like 19 or 20. It's just a dowel that I've cut many pieces in, and it's all from 1, 2, 3, 4, 5, 6, 7. And when you get in your airplane, you put this in your gas tank and see how much gas you've got on the, on the rail here. So if you, if you only have four or five inches, that's not gonna be enough. You want it full, which is seven inches. Then also you can take this and then I don't have anything right here. And you can bang it on the propeller and you have a high pitch tone from the propeller. And if you ever get a low pitch tone, when you're pushing it tapping it, there's something wrong inside the propeller.

Denise:

And that's touching that to metal.

Wally:

Affirmative.

Denise:

Yes. Brilliant. How many did you make?

Wally:

Oh, hundreds. Hundreds. Hundreds.

Denise:

You were a world traveler at 26. And that's a fascinating thing to me because

Wally:

I think I did that at 18 and 19. I was always traveling.

Denise:

That was, you took a friend and a dog in a camper all over the world.

Wally:

Yeah.

Denise:

So what was the inspiration for Wally to go around the world?

Wally:

You know, people in Taos came from all over, and that's where I was born and raised. So we had talked to them, they'd been here and here and here and here, and I said, I wanna go there. So that was as especially inspiration from the people I met in Taos. They wanna go to their country. And I didn't have to think twice about it. I just did it.

Denise:

And you bought a camper?

Wally:

Sure. Volkswagen Camper

Denise:

Flew Brussels, found a camper. And then you and a friend and a dog went.

Wally:

I can't remember the dog's name. Do you remember?

Denise:

Literally around the world? I'll bet I could find it.

Wally:

Well, that's okay.

Denise:

So, and then later in life, you got to take your mother on some of those. Same, took just some of those same places.

Wally:

Took her on a elephant ride in can't remember what country it was now Italy,

Denise:

India.

Wally:

India. India. India. Yeah. Oh, Manu. We're from India, came here and I taught her to fly, and then I went back there and taught her in India. Yeah, it was great.

Denise:

So you've taught people to fly all over the world all

Wally:

All over.

Denise:

Favorite thing about teaching flying

Wally:

To see how the person will gravitate to what I want them to learn about taking off landing, doing turns, keeping the altitude keeping the correct speed. Oh, there's so many things that I, I, I love to teach. I've taught all these people that you see pictures of how to do things in an airplane that I was taught from [Stephens College](#) on, and, and I had no trouble with my, my flying. I picked it up just like that because I had flown little airplanes, model airplanes when I was 10 or years old or so, and, and made them out of balsa wood. And through them, I knew exactly what to do when I got up in the air.

Denise:

Because you'd already practiced.

Wally:

Affirmative

Denise:

I love it. What do you think the future of Space Flight looks like?

Wally:

Oh, it's gonna go on and on and on with more and more people. All the youngsters are getting involved now. Look at 'em. In, in, in college and high school. I haven't been to many right in the last year or so, but when I was, all these kids were so excited about doing this and doing that and going into space and traveling, I said, go do it. Make sure you do it. I don't care what your parents say, do it. Yes. And whatever it costs, get the money.

Denise:

And one of the places that they can begin that journey is at Oklahoma State University. One of the best aviation schools in the country.

Wally:

Still is! Started at Stephens College and then went to Oklahoma State. It was the best thing I ever did.

Denise:

My best experience too. I followed you and not in aviation, but great school. And now we have a woman president Kayse Shrum. Which is, which is...

Wally:

She's great.

Denise:

An awesome thing for Oklahoma State. Anything else you'd like to share about your life or your time at Oklahoma State or...

Wally:

I've had a great life and I've loved everything I've done. And and somebody gave me this capsule, a space capsule, and it was full of cookies when it got sent to me. So this was the space capsule. I wanted to go up in that space capsule and never had the chance. And here's the astronaut that stayed that along with it. So this is one of my favorite things. I've got so many other trophies Oh. And, and world things that I hope that you'll take pictures of, but this is one of my favorite pieces that's been sent to me.

Denise:

You've, Wally, you've had the life.

Wally:

I've had a great life.

Denise:

You are such an inspiration and all. I'm so glad you invited us to come here in person, because this is,

Wally:

This is a museum

Denise:

Simply. It is. And

Wally:

I mean, there's, look at all those, the dollars over there. People made a hundred thousand, 10,000, whatever money and they gave it to me.

Denise:

Well, incredible. And the two days before we arrived today, there have been people here from the [Smithsonian](#) who have cataloged much of Wally's live.

Wally:

Everything, everything that you see in here and everything in the other room. And

Denise:

We'll be able to see it in the future.

Wally:

I have five or six flight suits left from when I started flying, so they're in a closet. But this is the latest one. Wally, thank you.

Denise:

Thank you, thank you, thank you.

Wally:

My pleasure. I hope all of you enjoy. And it was so nice to be with you in your living room.