

Project name: Agricultural Pilots: Crop Dusters in the Rural Midwest

Field ID and name: Interview 7

Interviewee: Emily Daniel

Interviewer/Recordist: Samuel and Ellen Kendrick

Date: 6 May, 2021

Location: Thierstory.io meeting, Emily in New Jersey, Ellen and Sam in Missouri

Others Present: N/A

Equipment used: Theirstory.io included recording capabilities

Microphone: Built-in computer microphone

Recording Format: .WAV

Recorded Tracks in Session: 1

Duration: 00:48:18

Keywords: Crop Dusters, Ag pilots, safety, air tractor, thrush, pilots, crops, agriculture, women, women in ag, female pilots,

Corresponding Materials:

Context:

Technical Considerations:

Transcription prepared by: Samuel Kendrick

Transcribing Conventions:

Use of square brackets [] indicates a note from the transcriber.

Use of parentheses () indicates a conversational aside.

Use of dash - indicates an interruption of thought or conversation.

Use of ellipses ... indicates a discontinued thought.

Use of quotations “ ” indicates reported speech.

Use of *italics* indicates emphasis.

Use of underline indicates movie, magazine, newspaper, or book titles.

Names of interviewee and interviewer are abbreviated by first and last initial letters.

Time is recorded in time elapsed by the convention [hours:minutes:seconds].

[00:00:00]

Ellen Kendrick: It is May 6 at 1:05, 2021. And we're talking to Emily Daniel. And Emily, where do you live?

Emily Daniel: I live in New Jersey.

EK: What town?

ED: Currently I live in Southampton, New Jersey. It's a small farm town in southern New Jersey.

EK: Okay, and why did I think you lived in Maine?

ED: I think it might have been South Hampton. I don't that's kind of like a fancy name. It's not a very fancy town, but it makes it sound fancier.

EK: Or maybe, maybe it's because like you had lots of pictures of I feel like we already know you because of Instagram. That's such a, you know, it's such a neat thing, like, and like you had pictures of cranberry bogs. Is that right? Yeah. So

ED: We actually... Our farm is on a cranberry farm. My husband and I farm 20 acres of fresh and frozen cranberries. That might be the main thing. This is about as far south as you can grow cranberries.

EK: I didn't realize that. Yeah, I'm sure that's why I thought that because you know, there's that stereotype that cranberries only grow in Maine, or wherever. Wherever those Ocean Spray guys are standing there knee deep with boots on. One of the things I was really interested in is you being female, in a male dominated profession. And just that, I know that... And also, nothing that you say is like going out to anyone, it'll be housed at the Library of Congress. But it's, you know, it's a personal interview. So you can say whatever you want. And I mean, even though it's accessible by the public, how many people go to the Library of Congress website and look up Emily Daniel? So feel free to speak freely.

ED: Not a problem!

EK: I didn't think it would be. So you know, the thing about being female in a male dominated profession. I mentioned that I had driven a truck in the 70s when it was just mostly, like owner operator wives. Very few single women driving trucks. So, I know the criticism, but I'm really... I never talked to anybody else who was in my position. Don't... I mean, you and I know machines don't care who drive them. They don't care. They don't care who's in charge. But it seems like other men do. So would you share some of that experience with us, please?

ED: Sure. Yeah, I hadn't really experienced any adverse kind of like, women in a male dominated field stigma until I actually moved away from home. I grew up in New Jersey a little bit further south than I am now. And I'm a third generation pilot. And I was the only girl in my family besides my mom, who also flies, and so just growing up, it was it was normal at the airport. It was a family owned airport, and everyone knew me, and it was just a community. I didn't realize that women didn't usually do this. It really took me moving away. So my husband and I got married in 2015. And I went with him to Air Force pilot training in Texas. And that's when I really started to learn that, you know, women aren't always welcomed in some of these fields. And I remember calling my parents and saying like, this is mind blowing. I can't believe people, you know, are saying these things to me. Like, I just never experienced this.

EK: What kind of things were they saying?

ED: So, one that stands out in particular to me is before we moved away, I said, Okay, I'll go with you to training. But I really want to be an ag pilot. So when we come back, that's what I want to start doing. He said, okay, use your time. Let's build supply time, get some experience, and then we'll come back and I will get you in an ag plane and I said okay. And I remember telling, there's a local ag pilot out in Texas where we were, we were in Wichita Falls, and he was retired. And I remember telling him like, Oh, yeah, it's so cool. Like, I'm going to be an Ag Pilot one day. And he kind of looked at me and he's like, Well, no, no, you're not. And I was like, excuse me. And he said, women can't be Ag Pilots. And I said, Well, why not? And he said, Well, who's gonna raise the kids and who's going to make dinner? Like, someone has to have dinner on the table every night. And I'm like, Okay, well, you know, I don't have to be the one that makes dinner or, you know, you can go buy some take out somewhere, it's not really a big deal.

[00:05:00]

ED: But that kind of put a little, a little damper on everything for a little while. And then I didn't, you know, I kind of use that as fuel. And right then and there, I decided, Okay, I'm gonna do it, I don't care who's gonna try to stop me. I didn't realize that people would do that. And then, you know, just in aviation in general, I can think of several instances where I would go to an airport, and hop out of the plane, and I have a student with me or a passenger. And people at the airport would go up to them because they were male, and say, like, how much fuel you want, how long you going to be here. And I'm like, Hello, it's my air plane. And it's... I've got more instances on that I can count on two hands that that's happened. And getting into the ag specifically, was quite a bit of a challenge. We're in a family business. So the business is currently owned by my father-in-law. And my husband and I are buying from him. That paperwork should go through pretty soon.

EK: And are they... Is everyone in your family an Ag Pilot?

ED: My dad is not, my grandfather was. So that's kind of interesting story in itself. I don't know where you want me to keep going with that, I've got more...

EK: You can say whatever you want to say. I mean, insert it now if you want. I don't care.

ED: Well, um, so my grandfather was an instructor pilot in world war two in Steermans. And after the war, he started Crosskeys Airport in New Jersey. And he had a crop dusting company, and a flight school. And they used J-3 Cubs, and Steermens, and Pawnees. And he kind of sold that business off, none of his kids really wanted to take it on. My dad had stories of ferrying the planes for his dad when he was younger, but he never sprayed. So that's kind of the gap with us there. And then on my husband's side, his dad started this company that we both work for. And so Austin flies. He's got one sister, and his mom, and they both currently don't fly. So I'm kind of the oddball out there.

EK: So where did the two of you meet?

ED: We actually met at the Flying W airport in Medford, New Jersey. And I was I think, I don't know 17 or 18. And at the time, I thought getting my pilot's license was super cool, because I could take all my friends flying, but none of their parents would let them go with, you know, a teenage girl in an airplane. So my mom was my passenger for a lot of my time building. So one day, we flew in there for lunch, they have an airport restaurant right on the field. And we saw these planes and these guys like with camera crews and stuff. And I, my mom's like, what kind of airplane is that? I said, I don't know, mom. And she goes, well go find out. Go ask him what it is. I don't usually like to go up to people that are strangers. And she's like, no, go, go go. And so I found the youngest one I could and I said, Hey there, you know what kind of airplane is this? And that turned out to be Austin, who's my husband, and that's how we met.

EK : What kind of airplane was it?

ED: They had an airshow team that they were flying with and they had Yak-52s. So Russian radial airplanes.

EK: We pulled into... We were in talking to Brad Slaughter the other day, and we pulled into the airport where he keeps his plane and there was a P-51. And that was going to the air show in St. Joe, Missouri. And the other... My other son just like had a fit. He just couldn't believe it. It was like he said, he said that seeing that playing was better than sex. So he was very happy about it. So...

SK: I can send you a video that I have of starting up. I'll email that to you later.

ED: Yeah, super cool.

EK: So anyway, so you just... This is your life. This isn't like something you decided to do. It as if you just are just doing what you know. The best.

[00:10:00]

ED: Yeah, I actually... Um, ag flying was never really a dream of mine from a kid. From the time I was 10 years old, I remember telling my parents I wanted to be a TV meteorologist. And I wanted to do the weather. And I... that was it. Like, I wanted to be like Hurricane Schwartz, like I wanted to go out there. And so I did, I went to college, I went to Salisbury University, I studied geography and atmospheric sciences, I got an internship at the local news station, and then had a job position open up, and I kind of hit that crossroads. It was right about the time I started loading on the ground for ag, before we left for Texas. And I kind of went through this crossroads where I was like, I don't know if I would really be happy doing this, because the internship was like, six months or so. So I got a real good feel for what the job was like. And it just seemed kind of lonely, and, and not really satisfying. I'm really passionate about everything I do. And I was told a few times, I was

maybe a little too passionate about telling people it was going to rain. I was... I just remember being so excited that I got the forecast right. Of course I'm excited, I nailed it!

EK: It's the weather!

ED: I know! And so I toyed around with some other ideas. In college, I also learned about what are called Hurricane Hunters. NOAA and the National Guard both have programs where they fly into the hurricanes. And had I not found the ag aviation, I probably would be doing that. But the way I found ag was through Austin and his dad. There's another larger company in New Jersey that I grew up... I grew up flying at their airport. And I didn't know that this was something that women were allowed to do. Looking back on it. Women were just kind of like shunned away from that airport. And I didn't realize what it was at the time. I thought they were just like grouchy crop dusters, but I'm realizing now that they just didn't really want anyone else to enter the field, especially, you know, a young female.

EK: Right. Yeah, it's been it's been interesting talking to these six men. Half of them were like... Because I always brought your name up. Because I would say, Do you know any women? And they, you know, somebody would say, "Well, no [grouchy noises]". You know, and, but... So because I always kind of wanted to get a feel for who they really were. And I figured they're like, their attitudes towards that question would tell me something, which it did. What's his name? Sam Styron, in Harrisonville, though, he said he had met you at a conference. And that... And he was very complimentary. Because he's, I guess he's very much into the safety aspects of it, and making it the profession more safe. And he said you were too. And so yeah, but everyone always mentioned well, around here anyway, they always mentioned the woman who augered in with a stunt pilot. That was in Hutchison. I think, some Yeah, like Hutchinson, Kansas, right. That was like in '17, I guess is when that happened. So they all kind of knew about her, but it seems to be like a pretty egotistical sort of profession for a lot of these guys. And their bonafides are not as strong as yours. You know, very few of them started flying. Well, of the six only one came from a flying family. And that was the guy Brad Slaughter who we talked to. A similar situation, his dad flew and yeah, he's always flown. But the rest of them kind of just like, decided one day, this is what they were going to do. So I think that's kind of interesting. Anyway, back to Wichita Falls. So you're hanging out at Wichita Falls. And Austin is in the Air Force. And so then were you still flying then?

ED: Yeah, so we lived in Wichita Falls for about a year and a half and then Arizona for a little less than a year. And while we were in all those places, I did a number of different flying jobs.

[00:15:00]

ED: I did the instructor thing, I flew some corporate, I flew skydivers in Arizona for a little while. And I just kind of did anything I could to build my time. Most of it was instructing. And I really enjoyed the instruction aspect. I really enjoyed doing that.

EK: Do you still have time to do any of that? I do.

ED: I do. So, in our company, now, we train our own pilots in house. So we have a new pilot starting this year, we had a new one last year. And I do a bulk of that training for everyone. And then I'll take on specific students. Our season started a couple weeks ago, and it'll last till mid-September. So usually throughout the rest of the fall and winter, I'll pick students to instruct. I'm not usually the optimal choice, and I'll tell people this because once the season starts, I kind of have to drop them. So if they need like a specific thing that they're working on, I can help or do things like that. But full time, if they're going to go year round, I'm not usually the best choice.

EK: So... Well, our season around here, it ends... What did Dusty say? Like it ends in maybe the first week in November would be the last time he flies. He refers to The Season as the 75 days of hell.

ED: Sounds about right.

EK: Yeah. Where you're working, you know, dawn to sunset, every single day. Um, so are you teaching people to spray, or are you teaching people just to fly?

ED: Both. I will teach and I can teach anyone anything except multi engine. So I work on instrument ratings. I work with our new pilots with tailwheel instruction. Austin does a little bit more of the spray teaching, just because he's done this longer than I have. And so him and I kind of work together to get everyone trained.

EK: How long have you done it?

ED: Since I've been in... Well, ag spraying, this is my fourth season. I've been flying since I was 13 or 14. So I've been flying for that used to be shorter math. [laughter] I'm 27 now so I'll let you guys do the math.

EK: Yeah, Sam - Sam just turned 28 yesterday.

ED: Oh, Happy birthday!

SK: Thank you!

EK: Yeah, and Jack, the other boy turned 34 the day before. I didn't plan that well. We have to have two different cakes on, you know, the fourth and the fifth. Yeah, it's kind of it's crazy. Where... What... I had another thought. Oh, I know something that I've been curious about. Jack has been taking flying lessons from Kevin Kingsley. I don't know if you know Kevin. Kevin lives in Lamar, Missouri. And he would come back from flying and just be exhausted. And he talks about how

physical the whole mechanical stick and rudder of flying is. Is that an issue for you? Because you're not very tall are you?

ED: I'm not very tall. As far as the physicality, it shouldn't be an issue for anyone male or female. The issue I have, and I've talked to another couple of pilots who are my height, I'm only 5'2". The issue I have is reaching the pedals. So even with... And I've had this in every airplane I've flown. There's been one airplane I haven't had to use a cushion for. So I just, you know, have a couple questions. I always carry them around with me and once I get my seat set up, then I'm okay. I just needed like, you know, an extra little boost. So, not an issue with that. Airplanes don't really take a ton of excessive strength to fly. I'm not I'm not saying that you should like not be able to lift things like we need to be able to lift like 50 pound bags to load things and I work on the farm so I've got relative, you know, I'm not super strong, but um, you know, I'm capable and I'd say most people, if you're relatively in shape could do this as well. The airplane is not very heavy at all. It is heavy when it's loaded up, but the way you fly it, it shouldn't take an excessive amount of strength to do it. You should use your trim and your flaps and not have to really muscle the whole thing around.

[00:20:03]

EK: Right. We, um... They were spraying over us last night. And it was, I think it was a 502. And, these big... we and... and Dusty the guy who flies, generally, has always flown a 402. But he moved up this year to the five. And it was interesting to watch how much like slower and longer that turns were on the, you know, even just going up to the five. Anyway, then. And then they went back to the airport, and then the 402 came out so, and then it was zipping around again. So I don't know, like, and as that turns out, it wasn't Dusty. It was a guy that we who we have tried to get ahold of and talk to, for like a month and a half. And he had come down here to help another pil - to help Dusty out and I was just like, seriously, we've been trying to get ahold of you for a month and a half. And now you're like right there in the sky? Land here and talk to us. But do you do that? I mean, I know that you like you flew for Heinen brothers last summer. And do you often contract out?

ED: We do. So where we are in New Jersey, the work is very limited. And people in New Jersey don't really like what we do.

EK: Oh, talk about that!

ED: Yeah, we... This year, we upgraded to two turbines. We have two turbine Air Tractors, and the phone has kind of just been ringing a little bit like, "Hey, you guys have these turbines, can you come help?" We've built ourselves up pretty solid reputation for being there when we say we will, and for doing a good job. Because we farm too, we understand that the farmers are paying us a lot of money. And they want the job done right. And, you know, I hope that every other ag pilot does the same thing. I'm sure there's a few out there that don't. But we always just kind of try to try to build our reputation that way that we are doing as good of a job as we would do on our own

plants. So actually, next week, we're headed to Maryland for a few weeks to do some spray down there. And then I'll finish up in Maryland and Austin will head back out to Kansas, I think Kansas, with Heinen Brothers and fly for them as well.

EK: The other guy that we know, Aaron Phillips, is flying for them. I think I mentioned him to you. Yeah, he doesn't live very far away from us. And he's married to a woman who I had in class when I was teaching and, and he said he's much happier flying for them. Because the business end of it, just was too much. But you and Austin, do you handle all of the business part yourselves? Yes.

ED: So we've divided it up. He mostly handles like the maintenance and that kind of... He handles like the daily operations and the maintenance. When I'm not flying. I am, you know, doing all the mapping, the licensing and stuff like that, like paperwork aspect of it. And then if I get caught up on that, I get sent out to maintenance, too. It's quite a bit so... And it's been an adjustment for us just shifting everything. Austin's mom used to be a huge asset in the office. But we are trying to take this over and get everything off their plate and let them you know, have fun and retire. And so it's just been a big transition as far as that goes. And what we found is just delegating really helps. So we have two more full time pilots. And between the four of us, we've sat down and just said, okay, you handle this, and you handle this. And that's really worked out really well for us.

EK: So you have two two more ag pilots that you employ?

ED: Yes, yep.

EK: One thing that has become obvious is that the public perception and the reality of what you do is way different. I think people don't understand that. It's a small business, that it's you know, it's like owning a storefront only your storefront's in the sky. You know, and I think, well, the last guy that we talked to, Brad Slaughter, he said, "People think we cowboy it up" whatever that means, because I think of cowboys as different than that.

[00:25:01]

EK: More just independent and steady. But I think he means like, Daredevil it. And he said, and that's, you know, that's absolutely not true. And it's... I like that you talked about the integrity of what you do and maintaining that, because he also talked about how, if you don't do a good job, then you're not going to have a job. And so you have to do these things. And why do you think, why do you think that's what people think, you know, why do you... Why do you think they think you just like zip around and act stupid in an airplane?

ED: If I had to guess, you know, in the 70s, and 80s, and things like that, when movies started to become a really big thing, they had all these crop dusters in the movies. And they were crashing airplanes left and right for like these Hollywood stunts. And I think it just takes a couple of those shots. Or maybe someone in real life used to be like that. I've heard tons of stories from, you know,

the old crop dusters in New Jersey. They... they're like, "Oh, we switched to ground rigs in the 80s, because this guy was crazy." And so I think if you just get one or two bad apples, and then enough media spotlight, you can really change the public's perception. And so one of the things that I really try to do is put myself out there and put out the work that we do. Because I think it is important, I think as a society in in the United States, we've lost track of where our food comes from, and the work that is put into making it just appear on the grocery shelf. You know, I think that people don't realize the testing and the time and the effort that farmers and everyone in the agricultural field puts into making this happen.

EK: I agree. I don't... were you gonna say something? Oh... I don't think they I think they have a clue. You know, they just look up and they see this airplane, making tight turns or whatever, and they think it's dangerous. Do you get called, like phone calls?

ED: We do, we get probably more than a lot of places in the Midwest. Just because we're such a densely populated state. We get a lot of phone calls. And they're kind of mixed. Some people just don't like the noise. Some people are afraid of, you know, what we're spraying or fertilizing. And then other people are, it's more of a fear of the unknown. They just, they want to know why, you know, why are we doing this? And it's just one of those things that has been lost, you know, they might have moved from the city. And now they see these airplanes over these fields. And just they want to know, like, what's going on a lot of people that we talked to, didn't realize that we still did this as a profession.

EK: Really?

ED: Yeah, quite a few people.

EK: Yeah, it's kind of a big deal! Yeah...Just on the safety aspect of it, one of the conversations we had... I guess it's different in the south, like in Arkansas and Louisiana. And they're... Because everyone that we have talked to has talked about how careful they are and how responsible they try to be to the people who call, you know, make phone calls about them or whatever. And so this guy was talking about being underbid and these guys come up from the south. I don't know what the South necessarily is. But they're reckless, you know, like, they're hot shot kids. And they do what do you call those things?

SK: Point of Turn Stalls.

EK: Yeah. Like they somebody taught him to, like, do these, like, go up and stall out and then come back?

ED: Oh, like a Hammerhead?

EK: That's it. Yeah. And, and, seriously, the pilot we were talking to couldn't, I mean, he couldn't believe the first time he saw it. And he told the kid he ever did that around him again. He was, you know, he'd never worked with him again. And the kid said, I have to, or they make fun of me. You know, like the people in the I think it was from Arkansas or Louisiana.

SK: Yeah, it was one of those states.

ED: Yeah. That's a huge part of our industry is, you know, is perception and people. You know, your peers have a huge impact on how you're going to turn out as a pilot.

[00:29:58]

ED: And it's, you know, one of the things that we feel really strongly about is promoting that safety culture. And I think you'll see that in the majority of the applicators you've talked to is that, you know, safety is huge. And we don't care how fast you turn. We just want you to do a good job. We want you to be safe. If you teach people that way, and you teach them right alongside you, they will automatically just pick up speed as they get more comfortable. For example, I've been flying radials for the last couple years, this is my first year in a turbine. I have already said, I know I'm not going to be as productive as I could be. Because I need to learn the airplane and get comfortable before I start doing really, really tight turns. And that's... It took me a lot of years, and the instructing that I did really helped me to put those limits on and make sure that I was making the safe decision.

EK: Too many questions. One just flew out, flew out of my head. Airplane joke. So, do you go to the... You go to the conventions? You're part of the, what is it, the NAAA? Is that right?

ED: Yep, the NAAA. The National Agricultural Aviation Association.

EK: So, are you pretty involved in that?

ED: I am. So, we... My husband and I started going to the conventions for the past three years. Because actually we hadn't been members before. And at the end of my first season, I said, Hey, like, there's a convention for people like us, I want to go. And we never...[cross talk] There's other people because we're in New Jersey, we're so secluded from the rest. You know, there's operators nearby, but it's nothing like you get in the Midwest. And so I said, let's go and we packed our bags, and we went, and it was really cool to see that there was such an organization that if... They do so many things for us as pilots and operators and just managing the media. It's really awesome what they do.

EK: Yeah. Does New Jersey, the state of New Jersey, protect the pilots? Or can people from other states come in and underbid you? Because in Missouri... You can... Well you can go to... You can't

go to a surrounding state. They... unless you're contracted by another company or a pilot, but anybody can you fly into Missouri. Is New Jersey like that, or are you protected?

ED: Um, New Jersey, and like a lot of other states nearby us, you just have to have your business license. And then your business will employ, you know, the applicators. So the way it works, as far as licensing goes, you have to have the appropriate pesticide licenses for each state you're operating. And as long as you can obtain those, like I know, for example, if we were to go to Missouri, I believe we'd have to take the exams in Missouri, to be licensed in that state

EK: To be licensed. But, I think you could. From what Brad Slaughter told us is that you can contact the farmer and get hired and just fly in and do the job and leave again.

ED: Yeah, I'd say most states work like that. As long as you are licensed to apply in that state. You can go in and, you know, offer whatever price you'd like. Fortunately, in New Jersey, not a lot of people would like to be here. So we don't really have much...

EK: My brother lives in New Jersey. My brother lives in Princeton.

ED: Okay, that's not far from us.

EK: Yeah. He's probably seen you flying.

ED: He might have. We go up that way quite a bit. So, yeah.

SK: I think what is what we're trying to ask you is, you don't have to be licensed in the state of Missouri to fly - to spray in the state of Missouri.

EK: Oddly.

SK: Oddly. So, that means that companies that are licensed elsewhere, can come in and spray for a lower cost than what pilots who are based in Missouri can do so is that is I guess you've already answered that. But you have to be... In New Jersey, you have to have... In New Jersey and the surrounding area, you have to be specifically licensed to fly in those states.

ED: Right. So not just the applicator license, but generally a business license as well.

[00:35:00]

ED: So if, you know, say someone wanted to come in to New Jersey as just an applicator, they would have to work for us or another company in New Jersey, unless they got the business registration as well.

EK: So when you when you first started spraying, did you go to a spray school? I mean, did you go someplace to learn? Or did you just learn from Austin? Or? And this is a question... This is a question that pilots are sketchy about answering because no one is going to turn you in to anybody. Because it's... What I think is really neat is that it's like this path... The lore - the skills are passed down from pilot to pilot, oftentimes, and it isn't absolutely necessary to go to a spray school.

ED: It's not necessary to go to a spray school. There are a few in the United States that have built up a good reputation. And so I found that it just depends on the operator and the pilots themselves. Some people learn better one on one, and some people learn better in a school setting. Personally, I learned... Austin's dad taught me quite a bit and Austin as well. And my first, you know, first flight I did with Austin's dad was in a Waco they have, it's a biplane, and he took me up and we flew it, he checked me out, we did some landings. And then we came back and landed and... The Pawnee is a single seat, so every time you are going into an ag plane, mostly you are by yourself. And so I sat down with them, we went over everything about the plane, the speeds, like a normal checkout. And the only difference was I got in the airplane by myself. And then I was off.

EK: So, how'd that feel? Was that scary?

ED: It wasn't scary, I was actually really excited. I thought it was so cool. And I was at that point where I thought, you know, any airplane, I can go fly like this is super cool. I'd say it's nerve-wracking for everyone else on the ground. Now that I've seen it a few times. If you're the one that's on the ground. We train them good, we have to trust our training, and go from there. And we do a really good job at, you know, sticking to like more of a syllabus type training to make sure everything's covered. So, you know, I didn't just jump into the Pawnee and the first day start flying and spraying for people. I, you know, I went up and I learned the airplane, I figured out how to land it. And then we put a little bit of water in, practiced spraying, practiced emergencies, the GPS, and then when I kind of got that stamp of approval, they would check my data every time to see, you know, if I was improving or not. And once it was good, then I started working my way down and started doing spray jobs.

EK: Yeah, that's pretty much what we're finding is true. We only talked to one person who enrolled and paid \$15,000 to learn to do the job. And I just think that's... I think it's pretty interesting that it's such a close community, you know, generally speaking. And you're right, around here, there are... We've talked to six people, and the furthest we've driven is 100 miles. You know, in northern Missouri, there's a whole bunch of pilots, and not so many further south. But obviously, in where you are, there aren't that many.

ED: Right. There's not a lot. There's us and one other company. And then there's another gentleman who has his own airplane, and he's like a single pilot operation. And that's about it. So, I mean, there's plenty of agriculture here. It's just a lot different than you would see in, you know, some of the big corn country areas.

EK 39:25

Yeah. Well, there was a guy in northern Missouri and he was... He sprays the river bottom area, huge big fields, and he had an 802. Do you generally fly smaller planes because of the congestion and the fields?

ED: We are switching to turbines just because of the reliability of a turbine aircraft. They seem to be much more reliable as far as maintenance goes and things like that. But we will always have a variety of aircraft...

[00:40:00]

ED: ...because some of the fields we do could be, you know, an acre. And so we need a Pawnee or a Weatherly or smaller airplane, to get in those fields to be able to do a good job. We wanted to move to the bigger airplanes without sacrificing the quality of our work. So that's why most of our turbines will be doing bigger fields and doing a lot of that contract work.

EK: When you... Last summer, when you shared some of the fields, the plots that you had in your little... Like how you map your route and stuff, I thought that was fascinating. Because you had like these little chunks of land, and with probably wires all over him. That...

ED: Yeah, where we are, it's more trees, but you will have quite a bit of like small power lines, like East Coast has, you know, those old power lines. And yeah, they're small and a little hard to see.

EK: Yeah, that was pretty interesting, I thought. Do you... Is there a registry for organic farmers? Because I would... I'm thinking that you're in an area where people have little plots of organic gardens or whatever. So do they register those, so you avoid them?

ED: So, it depends on the state. For example, Pennsylvania sends us a hypersensitivity list each year, it's updated twice a year. And it has people that would like notification prior to spray. So, every time we put in jobs up in Pennsylvania, we have to double check them to that list. There's online programs such as FieldWatch, that make that super easy. People kind of self-report. And we do a pretty good job of trying to keep up with the farms in our area. But there is a way they can self-report, organic farms, aviaries, and other sensitive crops like vineyards could be considered a sensitive crop as well. So, you can look on there. And that's a really helpful tool. Because it visualizes everything, it's not just, you know, a street address that you have to plug in. It's really nice to see that visually. And then there's certain regulations with you know, notification if you're going into a congested area. We don't, we don't really do a lot in the congested areas just because it's more of a hassle and there's really not a lot of farmland in those areas, anyway.

EK: Yeah. Did you... Were you ever able to get a pink Nomex suit?

ED: Not yet. [laughter] I found a gentleman that can make one he said, but I think it's gonna cost me quite a bit. So I might stick with green for a little while.

EK: I could make you one, too. My... I have a sewing machine, like right over there.

ED: Oh, that fabrics the hard part to find!

EK: Yes, it is. I did some alterations on some tactical pants or something like that. And I tried to find some fabric. And if I wanted 200 yards, I was good. But yeah, no, I couldn't find it.

ED: Yeah, you have to buy quite a bit.

EK: Yeah. But I'm sure there's a source. You know, I'm sure it's out there.

ED: Somewhere.

EK: And you're not very big, so it wouldn't take a lot of fabric.

ED: I know, I didn't need 200 yards. [laughter] You could make like a whole army of flight suits.

EK: So, we're about... we're at like 45 or 50 minutes. Do you... Is there anything that you... Oh, 43?

SK: Yeah.

EK: Oh, my phone's off. Oh, I forgot. We had... we had to reset.

SK: We had technical issues.

EK: Yes we did. This... You're our first zoom [thierstory.io was used instead of Zoom] interview. Usually, we're sitting in a cold hangar someplace. And I wish... Can I go ahead and just take a picture of you on this.

ED: Sure.

EK: Okay. And Sam said that you... There. Sam said that you already sent back that the release forms?

ED: Yes.

EK: Which is good. Thank you for doing that. Do you... We'll probably wind up here. Is there anything that you would like to say that... I'm sure you've been, you know, you knew we've been

wanting to talk to you for a year and you probably had some things that you thought about saying, is there anything that I haven't asked you that you would like to say?

ED: I would just, you know, this is the 100th year of Ag Aviation, so I thought that this was a really cool project that you guys were doing in that timeframe. And I would just...

[00:45:00]

ED: ...you know, want to highlight the importance or, I'm not sure how to phrase that, but how far ag aviation has come since 1921. I mean it was a crop experiment. And then, you know, over the years it's just really hard to adapt, and change with technology. And what we can do now is amazing, the precision agricultural technology that we have on board. Weather, automatic gates, automatic spray, and just, you know, the testing that goes into all of these products, as well as the crop products, I think has been... It has come such a long way in that really short span of time. I think that's pretty cool.

EK: Yeah, it has. A long ways from the two 50 gallon drums lashed to the bottom of a biplane. Yeah, which is, I think how it started out. Yeah, it is the 100th anniversary. We... Our hope is that, I guess I can say this, we've applied to present this series of interviews and our, you know, everything, our conversations at the American Folklore Society convention in October. And we're hoping that we get that, that honor of doing so. And I what... One of the things I really want to do is to represent this profession accurately, you know, and... Because I think that if I could say this about in general, if I could generalize the interviews, everybody wants people to know that they're safe. You know, and that it is a business, it's not just some showboating bunch of people. So...

ED: Yeah, it's not a super... Everyone always asks, "Is this a fun job?" And I said, "The flying is fun, but it's still work, and it's still business, and we're still out there just doing our best."

EK: Yep. Yep, you are. So, you said you had some names to share, will you... That would be great if you could do that. You have Sam's email... Okay, how about if we take about a five minute break, and is Austin still up to do this? Is he around?

ED: Yeah, he's actually over at the computer next to me.

EK: Okay. So, does he still want to talk to us?

ED: Yes, he's on board.

EK: Okay, so, let's take about a five minute break. And we'll come back and we'll get Austin on. I'll send you a message when we come back, okay?

ED: Okay, that sounds great.

EK: Emily, thank you so much for talking to us. If you're ever in the area, you should contact us, we'll take you out to lunch or whatever you have time for, or buy you a beer after you're done for the day.

ED: After we're done. That'd be great, yes,

EK: Yes. Okay.

SK: Thank you, Emily.

ED: Awesome. Yeah, we'll talk to you.

EK: Okay. All right. Bye.

[00:48:19