CEN23MA034

OPERATIONAL FACTORS/HUMAN PERFORMANCE

Attachment 1

Commemorative Air Force Personnel Interview Transcripts and Statements

September 28, 2023

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On-Scene Interview: John Cotter

Representative: None
Date/Time: November 16, 2022 / 0945L
Location: Dallas Executive Airport – phone interview
Present: Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview John Cotter stated the following:

For the Wings Over Dallas (WOD) airshow on Saturday, he was the pilot in the Helldiver. He was flying the bomber stream as #3 behind the B24 and just playing follow the leader trying to keep it in close. He heard the Air Boss, but he was talking to the leads and really didn't hear it. What he was telling the fighters to do… it was in the back of his head. He was just focusing on the B24 in front of him.

He never saw the fighters coming. His eyes were front. He had the B24 in his windshield. The B17 was in the lower left of the windshield so he did not see the hit but saw the b17 coming apart and thought it was a structural failure.

He did not see anything crazy in the Dallas show, but it was dynamic!

For the Wings Over Houston (WOH) air show on Saturday show (Oct 29), he was flying the C47 in trail behind the B17. They were doing a standard type of show with "roundy-round" passes and came down the show line at 100-200 feet. They'd make a couple passes like that. On a couple passes, the Air Boss would have the bombers do the duster turn meaning 90/270, and then come back down the show line in the other direction.

Each time down the show line they'd be at 100 – 200 feet and the fighters were above them "flying top cover". Ordinarily, the fighters stay up above them.

"But at that Houston show, the ME262, the jet, he actually came head on at us and below us." On one hand, as he saw him out the windshield, he thought it was cool, that it was neat to see… but at the same time… oh he sees us…? That's good. There's a lot of trust there… but it was NOT normal. It was not the normal show. That's not what we normally see.

On Sunday, in the WOH air show, he was in the bomber lead in the B17 and didn't see anything like that. But it's such a dynamic

show with the Air Boss calling it out. He's calling it out as he goes. Do this, do that… We had a comm issue on the B17, an open mic making a hissing noise. It was noisy. He missed a call from the Air Boss. The Air Boss wanted a duster turn, but he didn't hear it, so he just went into the pattern.

He didn't see anything crazy on Sunday, but on Saturday in the C47 having a head-on with the ME262 down below us was… surprising! He did not speak to the Air Boss about the issue.

Interview concluded at 1010L.

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 12, 2022	*	Accident No.: CEN23MA034

Interview of: JOHN COTTER, Vice Chairman Wings Over Houston Airshow and Pilot for Commemorative Air Force

Dallas, Texas

Thursday,
August 10, 2023

APPEARANCES:

SHAWN ETCHER, Investigator
National Transportation Safety Board

DR. SABRINA WOODS, Investigator
National Transportation Safety Board

BOB HEATH, Director of Operations
Commemorative Air Force

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I N T E R V I E W

(2:04 p.m.)

MR. ETCHER: Good afternoon. It's August 10th. It's 14:04 local time. My name is Shawn Etcher. I'm an operational factors investigator. All that means is I look at everything forward of the cockpit door and how it interacts with the pilot. You're here because I understand you've flown the airplane, you've trained, you did a lot of things. So you're here to help educate me. And it -- I'm a -- I'm a hard to learn, you know, to educate, so use big pictures, small words, always helps. But, you know, I just -- I just want to learn. Let me be that fly on your shoulder, if you will, as we talk -- go through this.

Thankfully, it's not all on my shoulders. I have some great colleagues to help as well, and one of those is Sabrina. I'll have her introduce herself here in a moment, so that way you kind of know who's playing with you here. And, thankfully, it's not just on the NTSB as well. We reach out to subject-matter experts. That's why Bob's on our group. He's an individual subject-matter expert for the CAF. So that way we make sure we get everything correctly and accurately as we possibly can.

MR. COTTER: Okay.

MR. ETCHER: But saying that, I will have Ms. Sabrina introduce herself.

DR. WOODS: Yeah. So, Dr. Sabrina Woods, also with the NTSB. I'm a human performance investigator, so I work often with the

operations folks, we complement each other. But what I'm doing is kind of looking more the holistic picture in which people able -- are able to perform. So a lot of the questions I ask will be based on kind of the operating environment of, you know, what helps you do the things that you're able to do and maybe some of the things that detract from you doing what you need to do.

MR. COTTER: Okay.

MR. ETCHER: And Bob?

MR. HEATH: I'm Bob Heath, director of operations for the Commemorative Air Force.

MR. COTTER: Okay.

MR. ETCHER: Those are the three of us that's going to be questioning -- asking questions today.

MR. COTTER: Okay.

MR. ETCHER: Typically is what we do is two rounds.

MR. COTTER: All right.

MR. ETCHER: I'll start. I'll ask a lot of questions. You're going to get tired of looking at me and talking to me, so then I'll pass it off to Sabrina, and then Bob. And then we'll go around a second round. Second round usually is a whole lot quicker than the first.

MR. COTTER: Okay.

MR. ETCHER: So keep that in mind.

MR. COTTER: All right.

MR. ETCHER: But I just kind of want to let you know how that

play goes. As you can see, we are using a digital recorder. We're going to send that recording off for transcript. We'll get a transcript back. The only thing we'll correct out of that is any typographical errors. We don't change what you say, any context or anything like that. Just change for the typos. That transcript itself will become part of the public docket. This recording will not.

MR. COTTER: Okay.

MR. ETCHER: So you'll see this transcript in the -- in the -- in the docket for this event, but that's all you see.

MR. COTTER: Okay. Okay.

MR. ETCHER: Is it okay if we record --

MR. COTTER: Yes.

MR. ETCHER: -- and have this transcript?

MR. COTTER: Yes.

MR. ETCHER: All right. Thank you. As part of the -- our regulations, you are entitled to have a representative of your choosing. Do you wish to have one in here with you?

MR. COTTER: I do.

MR. ETCHER: And who would that be?

MR. COTTER: Jim Lasche

MR. ETCHER: Jim, for the record --

MR. LASCHE: Sure.

MR. ETCHER: -- can you introduce yourself?

MR. LASCHE: Jim Lasche, Commemorative Air Force, chief

aviation officer.

MR. ETCHER: Thank you. So as I told you, we're going to ask lots of questions. But I always have a few ground rules I like to set first. My brain thinks one way that doesn't always communicate with my mouth, so it comes out wrong, differently, whatever. But if I say something that you don't quite understand what I'm asking, just ask for clarification. This is not a check checkride at all, and I'm perfectly fine with that. As I always say, it's a two-way street. If you give me an answer I don't understand.

MR. COTTER: Yeah.

MR. ETCHER: I'm going to ask clarifying questions as well.

MR. COTTER: Sure.

MR. ETCHER: So if you need a break at all, if you need to go use the restroom, you just need time for whatever reason because this is close to home for you guys, I get that. So if you need time, it's okay. You need to confer with your representative or anything, just say so.

MR. COTTER: Okay.

MR. ETCHER: We're happy to hit pause and let you -- we'll even leave the room if you need.

MR. COTTER: Okay.

MR. ETCHER: All righty?

MR. COTTER: All right.

MR. ETCHER: One of the most important rules I always have

is, as I said, it's not a checkride, so if you don't know an answer, I don't know works perfect.

MR. COTTER: Okay.

MR. ETCHER: So don't hesitate using that. A lot of times we like to deal with facts. But sometimes we'll ask for an opinion. Or sometimes you have an opinion, and that's okay.

MR. COTTER: Okay.

MR. ETCHER: Just let us know that it's an opinion so when I'm reading through this in a week or two, or three, or whatever, I'm like, oh, yeah, that was his opinion.

MR. COTTER: Sure.

MR. ETCHER: So that helps me later as well.

MR. COTTER: Okay.

MR. ETCHER: So I would appreciate that.

MR. COTTER: All right.

MR. ETCHER: Do you have any questions before we get started?

MR. COTTER: I do not.

INTERVIEW OF JOHN COTTER

BY MR. ETCHER:

Q. All righty. So I always start with the toughest questions first. Can you please state your full name and spell your last?

A. Yes. It's John Cotter, and it's C-O-T-T-E-R.

Q. Thank you. Do you like to go by sir, Mr. Cotter, John?

A. John is fine.

Q. Okay.

DR. WOODS: Mistah Cotta.

MR. LASCHE: Captain equivalent.

MR. COTTER: She got it.

BY MR. ETCHER:

Q. Perfect. So just give me a little bit of history of you, of your aviation career. How did you get here? Just kind of help -- let me know what -- your experience.

A. So I'm a commercial airline pilot, so that's where I got a lot of experience. But I've been with the CAF since 2006, and flown a significant portion of the fleet. Currently, qualified in the B-25, the C-47, the Helldiver, T-6, and a couple other airplanes. Also, an instructor pilot in all of those airplanes for the CAF, and on the standardization and evaluation committee. And we overlook when new pilots are brought in as instructors, and upgrades to be fighter pilots. So there's checks and balances in there. I mean I'm just one of the team.

Q. Okay.

A. That's all.

Q. Yep. And we'll get into that standardization role that you play just to kind of help us understand --

A. Sure.

Q. -- a little bit later. Have you ever flown -- I know you said you flew the, forgive me, the B-24? B-20 --

A. Yep, flown the B-24 and the B-25.

Q. Okay.

A. And the B-17.
Q. Okay.
A. So.
Q. And you've flown the B-17 before?
A. I'm an instructor pilot in that too.
Q. Okay.
A. I'm just not currently qualified.
Q. Okay. And -- so I'm going to have to ask, did you fly the accident airplane?
A. Twenty minutes before it crashed.
Q. Okay. Well, let's talk about that then.
A. Okay.
Q. The morning of the event when you flew it last, kind of walk me through what the day was like for you, if you will. Getting into the airplane, was there anything wrong with it? You know, worked fine?
A. So the -- it was -- it was a really cold morning, and the way the day was structured, part of when -- so let me back up just a second. I'm a wing leader for the group --
Q. Okay.
A. -- that lost the B-17. So I'll speak from that and pilot at the same time.
Q. Perfect.
A. So that -- so now back into the morning, it was really cold, and so early morning, our flight engineers prepped the airplane,

preflighted it, and did -- or morning engine run on it to get the temperatures up because we had two revenue flights that morning. So that's where we offer flights to the public so they can experience the history and learn, you know, about the greatest generation. So those two flights were flown by other pilots besides myself because I was at the airshow briefing.

My portion, when I flew the airplane that day, it was during the Tora! Tora! act, and myself and Buddy Cooksey were the two pilots, and so we flew the Tora! act. That was actually Buddy's airshow retirement flight, and so it was very special to be able to share that with him and with our crew, and the entire Tora! team because Buddy had been flying it for 50 years in tour. And so it was -- it was a big deal.

We landed, no issues with the airplane. Airplane's running great. No squawks that I can remember. And we did Buddy's photos, you know, his retirement flight photos with the crew. And then he and I left, we turned it over to Len and Terry, and the accident crew. And then I left because it was lunchtime, and I was actually in the big hanger back here when the accident happened.

Q. Okay. Okay. When you flew the airplane, were you in the right seat or the left seat?

A. I was in the right seat.

Q. Okay.

A. Yes.

Q. Excellent. So go back now just a little bit.
A. Sure.
Q. Since we were right there, I just wanted to get on that real quick.
A. That's okay.
Q. Since you -- since you're a pilot, obviously, what kind of certificates or ratings do you hold?
A. ATP, CFI, 17 type ratings, all the Boeings except 727, B-17, B-25, DC-3, Hell-39, Hell-29, Lear, Sabreliner, a couple others.
Q. So you carry a couple cards with you with your type ratings on it. Yeah.
A. Yeah.
Q. Okay. Perfect. And with all those type ratings, with all your experience, can you give me just a random ballpark even of your total flight time?
A. Oh, I just did it. It's about 19,000 hours.
Q. Okay.
A. Yeah.
Q. I told you, these are the toughest questions. They get --
A. Yeah.
Q. -- easier as they go on. I always --
A. Okay.
Q. I always feel that way. So now let's get into your role with CAF. You say you're the wing commander -- wing leader?
A. Wing leader --

Q. Wing leader.
A. -- of the Gulf Coast Wing, and we operated the B-17.
Q. Okay.
A. Yes.
Q. What else --
A. And --
Q. -- do you operate with that?
A. We also have, and still have, a SNJ, North American SNJ, and a Beechcraft Beech 18 --
Q. Okay.
A. -- C-45 military designation. And that's our current fleet.
Q. Okay.
A. Yeah.
Q. So were the accident pilots, were they part of your squadron?
A. Yes.
Q. Okay.
A. Yes. Len, the PIC was the former wing leader, and at the time of the accident, he was our training officer. And Terry, the co-pilot, was our maintenance officer.
Q. Okay. Did you ever conduct any training with any of those two pilots?
A. With both.
Q. With both or --
A. In the B-17, yes.
Q. In the B-17. Okay.

A. Yes.
Q. Sorry, I should have quantified that.
A. Yes.
Q. But, yes, in the B-17?
A. Yes.
Q. Do you recall when the last time you did any training with them?
A. Without looking at my logbook, I couldn't give you a factual answer.
Q. No, that's okay.
A. Yeah.
Q. I don't know, I don't recall.
A. Yeah.
Q. That's okay.
A. Yeah.
Q. Perfectly fine.
A. Yeah.
Q. Can you recall what you might have trained? What is it flight training, was it ground training?
A. Oh, okay. Ground training for sure --
Q. Okay.
A. -- because we do that every year. So we have our spring training where we do all the ground, the systems, any operational changes, stuff in our 602 regulations and the 6802 because that applied to the B-17. That's all done in January/February-ish just

depending on how the calendar works. And Len and Terry, and the rest of the crew all participated in that training, it's -- we bring the whole group together, and our wing and do that training. So I know that they were there at that, so that would have been eight months prior or so.

Q. Okay.

A. Flight training, I know I flow with -- flown with both of them and done checkrides meaning either check out initial training, like for Terry, because Len actually did my training --

Q. Yeah.

A. -- when I came on.

Q. Okay.

A. And then recurrent because we have to do our annual checkrides, and I know that I would have done that somewhere in the previous two years.

Q. Okay.

A. I just don't know if it was within that -- would have been for that calendar year for sure without -- I mean if you need that, I can look it up when I get home.

Q. It's all good.

A. Okay.

Q. No. I just -- it just kind of helps me out. I'm going to ask more general questions.

A. Okay.

Q. For your flight training, what do you guys usually do during

flight training? Do you just go up and do some touch and goes, and we're good? Do you go out and do all sorts of maneuvers, formation flight? Kind of help me understand what -- if I was coming into your squadron, what I would --

A. Okay.

Q. -- expect at my annual recurrent training.

A. Okay. So it's all outlined in our regulations whether it be the 602 or the 6802 depending on the airplane. But there's a long list of required things. A typical footprint for a training session would be take off, climb up to altitude, we do stalls, steep turns, slow flight, and any unusual attitudes up at altitude.

And then we'll come back to the airport area for the landing, and that typically runs in -- we do, depending on PIC or SIC, we'll do one or two approaches, typically three or four landing. And during that time, the -- if we're in a B-17, there'll be a three-engine landing and a two-engine landing. And then one of those will also involve a flap, not full flaps. So a flap at normal. And then anything that needs to be reviewed, we can -- we can do that again, and clean that up.

Q. And I know it all varies, but ballpark, all your training's you've done, how long does the flight training portion typically last? Is it like a less-than-hour session? Is it a couple of hours?

A. On a recurrent, we can typically do it in a hour of flight

time. So in the air time.
Q. Right.
A. You know, with taxing back and stuff, that -- so obviously, that adds more to the block. But we can get it done in an hour.
Q. Okay.
A. We try to be efficient.
Q. Okay. I --
A. Yeah.
Q. -- can imagine if you're having that many engines turning, you want to be efficient.
A. Yeah.
Q. So, okay. Understand. During your recurrent training, have you ever had people not have a -- I'll call it a non-successful training event?
A. We have -- it's handled as train to proficiency. I haven't had to fully down some -- in the B-17.
Q. Okay.
A. I haven't had to down somebody where they couldn't fly the airplane.
Q. Okay.
A. We did train to proficiency, so we did a little extra work on the items.
Q. So that's in the B-17. Have you downed anybody in anything else? And you don't have to give names, don't have to --
A. I did in a T-6.

Q. Okay.
A. Yeah.
Q. So --
A. And so the correction was that we ask him to fly with a different instructor pilot to make sure that it wasn't a personal thing, and it wasn't a personal thing. It --
Q. Okay.
A. He -- it was time.
Q. Okay.
A. So.
Q. Well -- and you got part of my questions there because I was going to ask, you know, how do you guys deal with that. But when somebody has an issue like that, how did you deal with it? Did you -- do you have to pick up the phone and call back to headquarters? Do you discuss it amongst your wing? Kind of help me understand how you guys decide corrective action.
A. So the one that was the down, if that's what you're referring to --
Q. Yeah.
A. -- that was actually several years ago. And so stuff has changed.
Q. Okay.
A. And so back then we handled it inside the wing, and this is a different unit. So it's not the B-17 unit. Talk to the pilot and I say, you know, obviously this didn't go very well. And why

don't you go fly with this other instructor pilot just in case, you know, you're not comfortable with me or something because we're all volunteers. You know, we don't want to pick on somebody or anything like that.

And so we sent him with another very experienced instructor pilot. And they had -- he struggled, and so that pilot had a conversation with him, and that pilot went home, talked to his wife and he decided on his own that he didn't want to continue any training, and he was going to stop flying. So we were willing to work with him, but he thought it was time for him. He made the choice himself --

Q. Okay.

A. -- so we didn't have to say -- we didn't pull his keys.

Q. Well, that's nice.

A. Yeah.

Q. That's good, I guess.

A. Yeah.

Q. So, okay. So estimated those training and checking events, how tough is it to potentially down one of your compadres?

A. It's hard. But at the end of the day, the reason that we're the instructor check pilot is these guys trust us to try to keep the assets safe because we don’t want anybody hurt, we don't want to lose assets.

Q. Right.

A. And so we take it very seriously, all the instructors do. I

mean when instructors check instructors, it's no freebie. It's like, you know, I mean we try to maintain the standard.

Q. Okay. All right. Perfect. So now let's kind of jump a little bit, if you will, to airshows.

A. Okay.

Q. Sounds like you've flown a few of them.

A. Okay.

Q. One or two here and there, right? And you flew in Tora! Tora! At Wings Over Dallas. When was -- before that, what was your most recent airshow that you flew in?

A. Wings Over Houston.

Q. Wings Over Houston?

A. Yes. That was --

Q. And when was that?

A. It was either one or two weekends prior.

Q. Okay.

A. I can't remember the exact date.

Q. And did you fly the Tora! Tora! then? Did you fly something different? Same thing?

A. Yes to both questions.

Q. Okay.

A. I flew Tora! Tora! both days. And then on Sunday, I also flew the C-47 that's all (indiscernible).

Q. Okay. So try to think to the Wings Over Houston event.

A. Okay.

Q. Talk about that for the moment.
A. Okay.
Q. You did Tora! Tora!, you did all that. How was that airshow -- how was it -- was there any difference to that airshow as to this one? I mean I know --
A. Understand.
Q. -- latitude and longitude.
A. No, no, no. I understand that. They're very similar --
Q. Okay.
A. -- in how they're constructed. The -- one of the big differences, just from a 30,000-foot view, between the Wings Over Houston show and the Wings Over Dallas show, Wings Over Houston has jet teams. And so because we have airspace restrictions here where we can't have the high-speed jets because we don't have the altitude or the lateral to be able to fly them here, we do at Houston. And so from a big overview, that's how the show's really different. But from an operational standpoint meaning briefings and, you know, get from 8:00 in the morning until 5:00 in the evening, it's very similar.
Q. Okay. Was it the same air boss at Wings Over Houston as it was with Wings Over Dallas?
A. It was not.
Q. Okay.
A. But they're related. So it's a father/son --
Q. Okay.

A. -- air boss company. While I was flying at Houston, and so just to be clear, Houston's a very long, as far as on the clock, show. So it's a very long day.
Q. Okay.
A. Typically, they would share to take a break during the day. I mean we're doing over five hours of flying, and that's a long time to be on the air boss stand especially if it's a hot day. And so the air boss that I flew with at Houston and the air boss that flew Dallas -- or bossed Dallas will trade off at Houston because the day is so long. You know, they're both fully -- at the time, fully qualified to run that kind of show. But while I was flying Tora! and then the C-47 on Sunday, it was the father --
Q. Okay.
A. -- who was the air boss at Houston.
Q. Okay. So -- I know you said they're related.
A. Yes.
Q. So everybody has their own techniques when they do airshows. Pilots have their own techniques on landing of course. Was there any different techniques at Houston than there were at Dallas that you could see from your perspective?
A. Nothing outstanding.
Q. Okay. Okay. Perfect.
A. And let me qualify that --
Q. Please.
A. -- just so it will be clear. I've flown Houston probably ten

years, and flown Dallas year that it's been hosted. And so I don't want to say there weren't differences, but with that -- that memory, I don't -- I'm not seeing it. So I can't answer your question the way you're asking.

Q. And thank you for that clarification.

A. Yeah.

Q. No, that's perfectly fine. I understand.

A. Okay.

Q. It's -- okay. Everything kind of jumbles together after a bit, so I totally get that. So let's go -- let's start the day in Houston.

A. Okay.

Q. The briefing.

A. Saturday or Sunday?

Q. Your choice, pick a day. I want to talk about a briefing.

A. Okay.

Q. Was there a difference in the briefing between either days?

A. The only difference in the briefing between -- and this is -- this is typical.

Q. Okay.

A. This is not just those two shows -- is on Sunday, they will ask -- the air boss will ask did any -- is anybody flying today that didn't fly yesterday, which means we were there for the brief on Saturday, and so some of the things can be omitted. And that's what mainly the investigator -- or not the investigator. Sorry,

wrong word. The FAA, what's he called?
Q. Inspector.
A. Yeah. That's in charge of the show. He's there and witnesses that. So I mean that's -- that'll be a difference in the briefing between a Saturday and a Sunday.
Q. Okay.
A. Yeah. And it's not just our two shows. It's other shows.
Q. Okay.
A. Okay.
Q. So the briefing on Saturdays, since that's --
A. Sure.
Q. We'll compare Saturday to Saturday here.
A. Okay.
Q. How's that?
A. All right. Fair enough.
Q. So the briefing on Saturday at Wings Over Houston, how was that one done? Kind of walk me through what the briefing entailed there.
A. So we gathered at the Coast Guard facility at -- on Ellington Airport. It's a big hanger like what we have over here. A lot of people in the room, performers, some looky-loos, airshow photographers, representatives from the airshow that work specific areas like ramp, the airshow director, you know, because he always says hi and thanks everybody for coming. Marshallers, they have a representative there. Crash fire/rescue has a rep. Tower, if the

field has a tower. Security. Those kind of things. All of those folks are present for the briefing.

Starts out, and I can't remember the exact order they do it in, but we talk about the weather for the day, especially if there's going to be changes. They talk about the winds, especially if we have jumpers because the winds, depending on how high we're going to drop them, it can affect where -- how we drop them and where we drop them.

Go through the airspace, look at it, you know, like on a sectional chart because in Houston we have restricted on one side because of the hobby airport, but then when the jet team flies, we get the whole space. But when we're flying, we're in a D-shaped smaller footprint. So we go through -- how that works and what to look for because the visual landmarks, so we stay within our airspace on the back side where that D -- the edge of the D is.

Talk a little bit about if there's anything in the waiver that anybody has any questions on. Then the sequence or the schedule for the day gets handed out. The boss will run through that from the beginning of the day to the end to clarify like what time are -- or when are you going to taxi, you know, because he has to put people in places on the field that don't interfere with an act that's currently taking place, and when we want to take off, and those kind of things. And we go through that.

And then from our perspective, meaning the warbirds, which will be the CAF typically, you know, because they're -- sometimes

there's a handful of private warbirds that attend. But the air boss will designate a bomber lead and a fighter lead if we have both of those type airplanes at the field. And also if we're doing a trainer demonstration with our trainers, which we do here and at Houston, we do a big display with our trainers, we'll have a trainer lead.

And then those at the end of our briefing -- because that's about the end of the briefing, and at the end, then those folks get together to brief their individual small things so they -- so there's no questions, you know, and you're -- if you're flying whatever, you know, we can talk and make sure that there's no conflicts and things like that. If -- yeah, if the boss, you know, has an idea of how he wants to operate it, he'll come and participate in that briefing so there's no -- so he knows -- or we know what he wants and he know -- and we, you know, so there's no confusion there.

Q. Okay. Okay. So -- and we're still talking about the Houston one?

A. This is Houston, Saturday.

Q. Yep.

A. Yes.

Q. Okay. So on the Houston one, I believe, and again, never let me put words in your mouth ever, but you said the father/son team, they kind of split up the air boss because it's a long event.

A. Yes.

Q. Who does the briefing though if they're going to split up, or do they both have to do the briefing?
A. Both are in attendance. But the father does the briefing.
Q. Okay.
A. Yes.
Q. All right. So for the Houston one, were you the bomber lead or any leads?
A. So Saturday at Houston, I was just in the B-17 for Tora!.
Q. Okay.
A. And that is all. And we do a separate briefing on our own. Later between the morning brief and our time to go fly, we go brief as Tora! --
Q. Okay.
A. -- because there is nobody else, and I mean we're it. When we're flying, we're it. So there's no -- nothing to conflict with. So we go do our side briefing. Saturday at Houston after I flew Tora!, then we put a new pilot/copilot in the B-17 to fly as bomber lead. And they were bomber lead at Houston.
Q. Okay. Okay.
A. So.
Q. So -- and just for the record for my clarification as well, Tora! Tora! is -- I'm going to use really bad layman terms I'm sure, but it's a scripted performance, correct? You guys have --
A. It is -- it's a scripted.
Q. Right.

A. I mean simple layman terms, yeah, it's a scripted performance.
Q. (Indiscernible).
A. It's a package.
MR. LASCHE: It's approved maneuvers package.
MR. COTTER: Thank you. Yeah. A maneuvers package.
BY MR. ETCHER:
Q. Okay.
A. And everybody that's -- that flies in Tora! is listed on -- in the package.
Q. Okay.
A. Yes.
Q. All right. So during the briefing, you talked about it, you guys broke off if you need to in your little groups. Let's go -- let's advance just a little bit to airshow time.
A. Okay.
Q. You have a time you're supposed to -- your expectations -- let me rephrase that. You have a time that you were told you're going to be airborne, right?
A. We have a position in the schedule that's typically at time, yes.
Q. Thank you.
A. I'm making semantics, but that's --
Q. That's okay --
A. That's how it works.

Q. -- to please --
A. Yeah.
Q. -- correct me.
A. Yeah.
Q. It's all good.
A. We run the day A to Z, and this -- the time slides a little bit.
Q. Okay. So you are aiming for your time. You -- and you're Tora! Tora!, correct?
A. Correct. And that's all I flew on Saturday at Houston was Tora!.
Q. Okay. So when you are on the frequency, how did the communication on the frequency sound? Does it ever sound jumbled? Can, you know, like a lot of people talking at once? Does it seem kind of nice cadence, everything's going great? Do you recall?
A. Are we talking in general or Saturday only? Oh, no --
Q. Let's do Saturday only right now.
A. Okay. It was as expected.
Q. Okay.
A. It's quiet. We listen to the air boss. He provides direction, and we -- if we agree, got it. If we disagree, we can't -- unable --
Q. Okay.
A. -- If there was something that he gave us a direction we couldn’t do.

Q. Okay.
A. That was not the case. It was everything was as planned for the Tora! Tora! --
Q. Okay.
A. -- portion of the flight.
Q. And just for my knowledge, once you're airborne, he doesn't give you guys any more direction because you're Tora! Tora!?
A. Correct.
Q. You guys do it all --
A. We --
Q. And then you're -- we're done, we're coming -- we're ready to come in. Is that pretty much how you guys do it?
A. Yeah. When we come in -- so do you want A to Z for a Tora! a day?
Q. Just kind of --
A. Would you like that?
Q. -- in general. If -- I mean if you think that would help me, by all means, I'm all about getting educated.
A. Okay. No. I mean I'll share it with you because it's -- I find it kind of interesting. So we take off, so I was -- I was in the B-17. We take off and we hold out to the show left in front of the crowd about three miles away. Tora! Tora! with the Japanese airplanes holds behind the crowd. And then -- so we do that while the airshow -- something is taking place in front of the crowd because we're what's called an air start. We start our

performance from the air. Some are called ground starts and they start from the ground.

As the day moves -- or the airshow moves forward, we'll get a five-minute warning meaning Tora's starting in five minutes. And that gets our narrator prepared so they can have their script ready. And then it allows us to start getting into our start position, if you will. Then we get a three-minute warning, and then that's when -- three minutes is when Tora's overhead and they start. And that's how I base my timing with the B-17, I need to be one minute behind them for my first pass inside the act. Then there's no communications from the boss or anything. We fly. There's nothing from the ground unless there's an issue.

Q. Okay.

A. When we reach what's the end of our act, our pyro team, which is a Tora! pyro team, they give us a call that says the pyro's done, which is the end of the act. And then we -- the Japanese airplanes go recover, get together, out crowd right. And the B-17, we go behind the crowd and do what's called a photo pass while they're setting up, and then we come in and land.

Saturday at Houston, that was a bit of an unusual one because when we get our knock -- and -- or not knock-it-off, our -- we call it bombs and bullets. There's a difference between the two terms. Knock-it-off is stop the airshow. And so we say bombs and bullets, that means our pyro is done, and that means we go do those things.

As we're getting into position, Tora's going out there, and we're behind the crowd. There was an incident on the ground with an airplane that accidently got started without a pilot in the seat. There was a -- pilot made an error, and the airplane was loose on the ramp. And so that the radio was a bit jumbled at that point. It got all straightened out. Nobody got hurt.

MR. LASCHE: Not a CAF airplane.

MR. COTTER: And it wasn't a CAF airplane.

MR. LASCHE: That's the best part.

MR. COTTER: Yeah. Exactly. And -- but you asked a question about if the radio was jumbled.

BY MR. ETCHER:

Q. Right.

A. When an incident happens, you know, the radio got very jumbled.

Q. I could imagine.

A. But we have procedures in place that if you can't communicate, you go to your hold positions. And that's what we did. We went and held until the radio cleared up, and the thing on the ground was under control, nobody was hurt. But nothing else was happening. And then we recovered back to the airport. That was kind of the -- that was the only unusual thing for Saturday from my perspective.

Q. Okay. So let's jump ahead a day.

A. Okay.

Q. Let's go to Sunday.
A. All right.
Q. You weren't doing -- were you not -- you were not doing Tora! Tora! Sunday?
A. I did Tora! again on Sunday.
Q. But you did something else?
A. And then I flew the C-47 after that.
Q. Okay.
A. And again, the right seat. So we had a new captain in the left seat that doesn't have a lot of airshow experience, and so on both days, we had him fly with experienced airshow pilots. And Houston's a big show. It's very busy. And so we wanted him to benefit from our experience at that show. And we felt that if he's comfortable flying in that environment, because it's a big, busy show, that he would be comfortable at any other show that the CAF participates in. And so I was flying with him on Sunday in the C-47.
Q. Okay. So on Sunday, when you were in the C-47, were you part of a scripted group like Tora! Tora!, or were you just a single ship all by yourself just doing some low approaches? Or were you paired up with other --
A. So we were in a -- not a formation, but it was a flight of bombers, and it would have been the B-17, B-25 from another museum, not a CAF airplane, a C-47 that I was in, and the Helldiver was behind us. And so typically -- and so we're just --

we're in a string that follow each other around. Additionally, at Houston, there was a P-51, privately owned, and an ME-262 replica owned by another museum that was flying as part of the fighters. And so we were all in the air together.

Q. Okay.

A. And script -- it was not scripted --

Q. Okay.

A. -- to answer that question.

Q. Is that normal to have bombers and fighters up --

A. Mm-hmm.

Q. -- together when they're not part of a script like Tora! Tora! or something when -- I get that. But just not -- unscripted, is that typical?

A. Yes.

Q. Okay. Did you guys on that -- when -- were you guys flying close proximity to the fighters? Were you -- did the bombers go through, and then a little bit later, the fighters went through, and then you guys come back? I mean kind of help me understand that dynamic.

A. So prior to Dallas, the bomber patterns would consist of either a racetrack in front of the crowd, so you pass left to right in front of the crowd, go out with a left-hand turn and just make a racetrack.

Q. Okay.

A. Or what was called -- some guys call them duster turns, some

folks call them 90/270s where you fly in front of the crowd, you make a 90-degree turn, then a 270, and then fly back in front of the crowd the other direction and do that on both ends. At that time, that was still an approved maneuver for us in the CAF.

Q. Okay.

A. So it was a combination of both. Typically, what'll happen is the fighters will be on top of the bombers, you know, 300, 400 feet higher, and it looks like they're providing cover. And in the case of Houston, they meet 262, you know, that's the bad guy airplane. And so the two fighters are chasing each other is typically how that works.

Q. Okay. So I have a visual in my head. So I just want to make sure my visual's kind of close.

A. Okay.

Q. In Houston, the bombers, you guys were at one altitude, and fighters were at a different altitude?

A. Typically, that's how it's done.

Q. Is that a -- is that assigned -- and we use the term assigned, I know they're not controllers, but is that an altitude given by the air boss, or is that a predetermined altitude?

A. Usually we talk about it ahead of time.

Q. Okay.

A. So like when we come through in front of the crowd, we're no lower than -- no lower than 100 feet, but typically 100 to 200 feet. And then on -- when we're on the racetrack on the other

side outbound, we're 600, 700 feet. And this is all above the ground.

Q. Right.

A. And typically what they'll say is if the fighters are going to be above us, then they're going to be 600 feet in front of the crowd, 1,000 feet --

Q. Okay.

A. -- out there.

Q. Okay. That helps. I just wanted to make sure I had that visual in my head correct. So --

A. But I'm going to say that typical.

Q. Okay.

A. Okay.

Q. That's -- but you kind of pause a little bit like that's not what happened.

A. So the -- so I can't speak to Saturday or speak -- I can only speak about what I saw Sunday.

Q. And that's all I'm asking.

A. Okay. On Sunday, it was the group airplanes that we just talked about, the four bombers and the two fighters. And we were number three in that string of bombers. And on one of our -- near the end of our time for our act, the pilot that we're training or getting experience, he -- I mean he's trained.

Q. Yeah.

A. He was flying, and we were turning in to go from left to

right in front of the crowd. And I can give you a picture -- I mean I can draw it for you if you wanted. And I heard the air boss talking to the mustang and said to come through -- I don't remember the exact words. But I knew that he was off to our right, and he was coming through. And he -- we were behind a B-25, and the P-51 came through at a 45-degree angle to our flight path from right to left at our altitude between us and the B-24 -- us and the B-25. That is not typical.

Q. I know you probably got more to say here, but I want to cut in for just a second. How much distance was between you and the plane you were following in trail?

A. The B-25?

Q. Yeah.

A. Probably 1,500, 2,000 feet. Half the runway distance.

Q. Okay.

A. So, yeah.

Q. All right. And you said the fighter came through at your altitude between you two?

A. Correct. Actually, we were probably a little further apart than that.

Q. Was that briefed? Was that maneuver briefed at all?

A. No.

Q. I'm sorry. I just want to make sure we're clear.

A. Oh, I'm sorry. No, it was not.

Q. Okay. So there's no easy way to ask this. How did that

happen? In your -- from your perspective, maybe even in your opinion, how --

A. So I'll state this as an opinion.

Q. Okay.

A. There was just a little bit of freeform in how that was ran from the air boss side.

Q. Okay.

A. So it's kind of -- if you think about a -- the conductor at an orchestra, you know, he's conducting, kind of how I got the feeling.

Q. Okay.

A. But that is not -- that was the first I'd ever seen that.

Q. Okay. That was the next question I was going to ask, so.

A. Yes.

Q. Was that the father or was that the son that did that air boss maneuver?

A. At that time I was flying?

Q. When you were flying for yours.

A. The father was the air boss.

Q. Okay. How did you know that the fighter was going to cut through your line of path? Or did you -- was --

A. I didn't know he was going to be at our altitude. I knew he was coming from the right to the left because I'm listening to what's going on because I want the big picture of everything that's happening around us. And when he said it -- and I can't

tell you what the words were, I just know he was over there. I looked over, I saw the fighter, and I told the pilot I was flying with just keep what you got and keep flying the line you have because I didn't want him to be startled. I mean he wasn't going to hit us. I mean I know that. But he was going to cross in front of us, and I didn't want him to be surprised and, you know, pull up or do something. And so I said just keep what you got, he's going to pass in front of us. He's coming from right to left.

Q. When did you -- and you were seated in the right seat, correct?

A. Correct.

Q. When did you actually see the fighter?

A. Oh, as soon as he told him. I mean I -- as soon as he said he was going to come from the right to the left, I looked over and found him.

Q. Okay.

A. I didn't have to look hard.

Q. Okay. Was your visibility okay out of the air -- I mean --

A. Yes.

Q. -- I'm trying to visualize --

A. No.

Q. -- visibility and everything.

A. Yes. Yeah.

Q. Okay. Perfect. So I'm sure that was a -- I'll use the term

a bit startling that that happened maybe. Is that an accurate way of --

A. Startling's not a correct term.

Q. Okay. Or --

A. Unusual --

Q. -- unusual.

A. -- would be the correct term.

Q. Unusual. Did the rest of the time you were airborne go uneventfully?

A. Yes.

Q. Okay. So you -- after that event, you finished up. You came in and landed. Was there anything you did -- is there anything you could do when something that was -- we'll call it the freeform, we'll use your term freeform -- like that? Is there any -- I mean I assume that was not -- did not make you happy that it wasn't -- that he came through at your altitude?

A. Yeah, because it's unexpected.

Q. So was there means for you to bring the unexpected to someone's attention?

A. There is a means, but it was -- so on Sunday at the end of the day, everybody's going home. And so there was no debrief or discussion after the event.

Q. Okay.

A. So just to be fair.

Q. Okay. Do you normally have a debrief after the event?

A. Not on Sundays.
Q. On Saturday did you have one?
A. Me? No. Other pilots, yes.
Q. Okay. And with debrief, is it with the air boss?
A. It was that day.
Q. Okay. I just -- I'm just trying to understand.
A. And I don't know what the conversation was, I just know it took place.
Q. Okay. And that's --
A. That's all I know.
Q. That's okay.
A. Yeah.
Q. All right. So -- okay. So now let's fast forward a week or two, whatever it is, to Wings Over Dallas. You were up flying that day as well.
A. In the show.
Q. (Indiscernible). And that was part of Tora! Tora!?
A. It was Tora! Tora! again.
Q. Okay. I'm trying to keep these all straight.
A. (Indiscernible).
Q. Sorry.
A. No, it's okay. The only difference was in Houston I was the PIC in the left seat. On Dallas -- at Dallas Saturday, I was the SIC -- PIC in the left seat, SIC in the right seat because Buddy was PIC.

Q. Okay.
A. Just so you know I was sitting differently.
Q. Yep. No.
A. Okay.
Q. Understand that. Appreciate that clarification. So let's compare from your perspective the morning briefing on Wings Over Dallas. How was that morning briefing for you -- I know you're part of a scripted sequence, but how was that morning briefing for you?
A. So, frankly, I don't remember anything out of the ordinary. The -- how I describe, you know, how it was laid out, the things that are briefed took place --
Q. Okay.
A. -- the -- in the order -- nothing stood out as unusual. From where my perspective would differ is because I was only flying Tora! Tora! at Dallas and not anything else, I did not go to the individual briefings for either the trainers, or the bombers, or the fighters. I did not participate in that.
Q. Okay. Who conducted that briefing on that Saturday morning here at Wings Over Dallas?
A. The son, Russell.
Q. Okay.
A. Yeah. Who was the air boss.
Q. Right. So was that briefing similar in your mind as it was in Wings Over Houston even though they're different bosses, but

was there similarities? Was it, oh, that's a little different, I never thought of that from a briefing standpoint?

A. No, they're almost cookie-cutter, if you will.

Q. Right.

A. Yeah. Same flight presentation --

Q. Okay.

A. -- basically.

Q. Okay. Nope. That's great. I appreciate that. All right. So let's fast forward out of the briefing just a moment.

A. Okay.

Q. You're going out to fly, and you're in the B-17. And I know yours is a practice maneuver, you can probably do it in your sleep. In fact, you probably -- your hands probably move in your sleep because you're doing it in your sleep. But how'd the airplane -- what is the visibility like, first of all, out of a B-17?

A. So I don't consider it good or bad.

Q. Okay.

A. I just consider it as it is. It's what you have.

Q. Okay.

A. You have windows -- I mean, obviously, you have the windows in the front, then we have windows that come back behind the pilot seat slightly. We also have eyebrow windows in the top. So if you're in a turn, you can look through and have visibility where you're going.

Q. Okay.
A. Now having said that, it's an 80-year-old airplane, it has restrictions.
Q. Okay. And that's what -- I just wanted to make sure it wasn't just all glass. That --
A. Right.
Q. -- you know --
A. No.
Q. -- there's restrictions.
A. Yes.
Q. Okay. So you're doing Tora! Tora!.
A. Yes.
Q. You're in the B-17, and you said, please, again, don't let me put words in your mouth, the airplane was fine. There was no squawks that you could recall. It flew just fine.
A. Yes.
Q. No issues. All right. You do your Tora! Tora! run. The air boss doesn't communicate with you guys while you're doing Tora! Tora!.
A. That's correct.
Q. And then you came in and landed. How was the air boss on the frequency then? Was it kind of normal?
A. Mm-hmm. Just nothing outstanding.
Q. Okay.
A. Calm. You know, there's no stress. Once we recover, land --

Q. Okay.
A. -- the only directions we receive, because we're finished, he gives us taxi directions in case we're -- there's going to be conflicts with X that he's bringing out of the ramp area. So he'll coordinate getting us back into the ramp.
Q. Okay.
A. And how we got I don't know -- I mean, we came out.
Q. Yeah.
A. Yeah.
Q. You were just doing what you're told. Okay. Understand. On that day, how was the weather for you at Wings Over Dallas? Clear skies?
A. Oh, yeah, it was high cirrus. It was cold.
Q. Okay.
A. And I don't remember how cold, but we had jackets on. It was cold.
Q. Okay.
A. But it was -- I'm pretty sure it was high cirrus clouds.
Q. When you were doing your Tora! Tora! maneuver, how was the sun? Was it -- was it any factor for you that you can recall?
A. No, because that should have been about 11:00, maybe a little later.
Q. Okay.
A. So sun would have been, you know, up high in the sky.
Q. Okay.

A. So no issues.
Q. Okay. Just trying to get a nice visual --
A. Yeah.
Q. -- for that day so I, you know, I've seen the videos and things like that.
A. Okay.
Q. But from your perspective, you're up higher, so I just kind of like to know what -- how easy it is for you to see.
A. Yeah.
Q. All right. So when you came in and you parked, shut down engines. Was the accident crew there to take it from you?
A. That one's hard to remember to be honest. So we -- that was Buddy's retirement flight, like we spoke about earlier. And so we took our pictures, and then I have a vague memory of talking to Len before he climbed in the airplane. Just -- and that's all.
Q. Okay. Okay.
A. Yeah.
Q. And since it's a vague memory, I think I know this answer, but if I don’t ask it, I'll never know.
A. That's fine.
Q. Anything ring a bell, anything seemed abnormal for you with the accident crew at all?
A. Not at all.
Q. Or with --
A. No. And we had interacted earlier in the morning, and

everything was fine.

Q. Okay.

A. They were happy to be there, and excited and just --

Q. Okay.

A. I mean we all are. To get to go fly in an airshow, I mean that airplane, gee whiz.

Q. Yeah. Okay.

A. Yeah.

MR. ETCHER: Perfect. Now I know you've been talking to me for 50 some minutes. You got to be getting tired of teaching me a lot of stuff, so --

MR. COTTER: It's okay.

MR. ETCHER: -- I'm going to pass it over to Sabrina. But before I do, do you need a break? Does anybody need a break? Everybody doing okay? You're good?

MR. COTTER: I'm good.

MR. ETCHER: All right. Thank you, again, so much. Let me -- my brain percolate on this for a little bit.

MR. COTTER: Okay.

MR. ETCHER: I'm sure I'll have some more questions.

MR. COTTER: Okay.

MR. ETCHER: But, Sabrina.

BY DR. WOODS:

Q. Yeah. Thank you for everything that you've given us so far. To get perfectly, I guess, on record, what are the -- from an air

boss standpoint, what are the fundamental differences between acts such as the Tora! Tora! Tora! and everybody else?

A. Okay. So the -- from an air boss standpoint.

Q. Yes.

A. The air boss will provide direction when other folks are flying, control the timing, resolve conflicts, and I don't mean interpersonal conflicts. I mean conflicts with other airplanes. And when you're in approved maneuvers package or a scripted act, they basically hand us the airspace. I mean they're still in charge of the airspace. We come in, we do our thing. When we're done, then they start talking again. That's kind of the big difference.

Q. And personally, as an experienced performer in these settings, what expectations do you have for your air boss? What do you want out of them?

A. Well, first and foremost, a safe show, and a good show for the public from a performer standpoint because we want our guests to be happy and have a good time, and, you know, I mean that's why we're there.

Q. But how do we get there? What does that mean?

A. Can you ask it again please?

Q. I walk in off the street, you don't know me from anyone. I want to be an air boss. I'm going to run this airshow. Are you going to perform for me?

A. Mm-mm.

Q. So --
A. Okay.
Q. -- you have some ideas --
A. I think --
Q. -- of what you want, and what you're looking for and what you expect in an air boss. What are some of those things?
A. So I expect experience. So that's, you know, having been involved in our industry from -- at different levels, whether starting as a performer, and then mentor -- or being in -- being mentored by other air bosses to learn from their experience. Do the training that's provided through the International Council of Airshows group because they have an air boss training program. And so from a learning and experience standpoint, I expect that.

I expect them to know the limitations of the performers. Let the performers know that if they're asking too much, that it's okay to say no. And I except them to run a safe show.

Q. What do you expect out of your pre-brief?
A. A basic overview of what the day's going to look like. Unique circumstances for the day, whether that be the weather, the airspace, the order we're going to fly, safety protocols that are in place. I'm kind of drawing a blank now. Sorry.
Q. What are your expectation for the performers that you will be with as a fellow performer?
A. I expect if they're feeling bad, they shouldn't be there, and it's okay for them to say no. I expect them to know their

limitations, and not to get outside of that, for themselves personally or for their airplane. Yeah. I expect that if they see me doing something that I shouldn't be doing, that they're going to tell me about it because that's kind of an unwritten deal we have. It's like we look out for each other because we may not realize ourselves if something is, you know, pushing the limits, that they can see it being removed from the situation. I kind of expect that.

Q. So given those three scenarios, the air boss, the pre-brief, which is your mechanism for getting that information, and fellow performers, what if it's not meeting the expectations, what recourse do you have?

A. Well, anybody can raise the red flag. And I mean if it's during the performance, we call a knock-it-off, and we stop. I mean if you're in the air, you fly wings level and go to your hold point, get it figured out. If you're on the ground, you stop, get it figured out, don't continue on.

If it's something that happened in the show and we're past the end of the show now, we should try to have a conversation about it. That's the debrief that we talk about. The input, depending on where it's going whether it be going to the air boss or to a fellow performer, or whomever, you hope it will be received in the spirit in which it's given as, you know, we just want to be safe out of here. And -- so.

Q. And if it's not, do you just stop with that one person, or do

you have other tools at your disposal?
A. Within the CAF, we have other tools. We can -- I can pick up the telephone and call Bob or Jim and in -- I mean they'll answer right away. So we have that tool inside of our organization. We can do safety reporting, kind of like ASAP from the airlines. We can do that here. It can be anonymous. It can be -- you can put your name on it so people can call you back and ask questions. Or we can -- I mean, that's it if we're not getting, you know, if somebody's not open to the suggestions to --
Q. Are you comfortable that your concerns will be heard if you were to have to use one of those different tools?
A. Absolutely.
Q. Have you ever had to use one of those different tools?
A. Not for a safety thing. It was a training thing, and it was very warm -- positively received.
Q. Switching gears just a little bit to -- and I hate to go back to the Houston -- that set up, your Sunday set up is kind of what I need to ask some --
A. Sure.
Q. -- further questions. So to recap, in that set up, you did the Tora! Tora! act, but then you were also, if I recall, the right seater for the C-47 that was what number in the bomber group?
A. There were three.
Q. Okay. Operating as a person in trail.

A. Okay.
Q. You talked about the unusual experience of having a P-51 go from -- what'd you say, right to left or was it left to right?
A. Right to left.
Q. Right to left in the separation between you and the B-25, correct?
A. (No audible response.)
Q. You were in the right seat, so I'm going to make a hard presumption here, not a pilot by the way --
A. Okay.
Q. -- that you were not the pilot flying?
A. That is correct.
Q. Okay. And you happen to hear the air boss saying, hey, do you want to come on through?
A. Mm-hmm.
Q. Okay. That's my whole set up for the question.
A. Okay.
Q. Just make sure I got the story right.
A. So I want -- I want to be real careful when you -- and I don't want interject words that you're trying to ask me a question, but I want to make sure that we're clear, when we're up flying and the boss is talking --
Q. Yep.
A. -- hopefully, I'll say for myself, I'm listening to what the air boss is saying all the time because that helps build the big

picture. I'm not saying it doesn't fall apart. So it wasn't that it just happened here. I want to be clear. Sorry.

Q. I know. That was going to be my next question --

A. Okay.

Q. -- is how much do you think, I guess, your cognitive levels are available to be listening that intently to what the air boss is saying when you're not the pilot flying, and you're not the flight lead as compared to if you were in one of those two positions. And I'm sorry, I tripled-stacked that question, which I try not to do. But --

A. Okay.

Q. -- do you think that there is a difference in your ability to pay attention, listen, and absorb what's going on if you are in this position as a trail right-seater versus, let's say, if you were the left-seater in trail?

A. So I'll speak to Sunday --

Q. Yeah.

A. -- only. While the other pilot was flying and having the experience -- and I'm not tooting my horn here, I'm just saying I've got the experience at the airshow and listening to what they -- what they do, me not having to fly the airplane, I had the whole picture in my head what was going on. So that -- I think that's the first part of your question.

Yes, not flying the airplane frees me up to look around a lot more because I expect the guy flying to look at the line, where we

need to be, the airplane we're supposed to follow, you know, keep those in sight to make sure we have our proper spacing. That's it. That's that person's primary job. If you got bandwidth left, then you try to do the other stuff, too, and that comes with experience. That's why we don't put two new guys in our airplane at a show.

Q. So in that scenario, how much of that communication that was going on and coordinating that P-51 do you think your left-seater also heard and absorbed while he was flying the aircraft?

A. That'd be pure speculation. I -- like I couldn't answer that for you.

Q. That's fair.

A. That's why -- so just to try to give you a little bit. That's why I try to explain this is what he's going to see and hear in --

Q. Yeah.

A. -- just a minute. And to keep --

Q. Yeah.

A. -- it flying. So it's kind of like --

Q. Yeah.

A. -- braving his situational awareness in case --

Q. Okay.

A. I don't -- I don't know if he knew it, but we always -- I mean that's part of our training is to say it out loud, may already know it, but thank you because you didn't know if I knew

it or not.
Q. Correct.
A. Okay.
Q. That sounds (indiscernible). When you're flying -- now this is you.
A. Okay.
Q. Let's say you -- and you are the PIC, left seater, whatever you want to call it, flying in trail, what do you focus on?
A. Well, me, personally, is what -- who am I following, making sure that I'm in the relative position that I'm supposed to be. Make sure that I'm on the line that I'm supposed to be because that -- we don't want to be too close to the crowd, there's a spot where we're supposed to be no closer. So you want to make sure you don't break that line. And then watching altitudes so you don’t get too low, you know, because we have the minimum floor where we're supposed to be. And then -- I mean I try to -- I'm listening to all the radio chatter that I can listen to to keep that picture in my mind.
Q. So flipping the situation, I know that this is a hypothetical now.
A. Okay.
Q. But presumably, you've flown as flight lead before?
A. Oh, yeah.
Q. Okay. So in that scenario, how does your workload change than if you were in trail?

A. Oh, I'd rather be lead. You're always in position. Sorry. Don't mean to be flip, but it's -- in the lead position, you control the pace, you control where the whole flight's going to be. There's no wake turbulence to deal with. That adds when you start getting back further in trail, so.

Q. But how does your workload change as compared to a PIC who's in trail?

A. I think it's easier as lead. All you got to do is worry about yourself. If -- I mean if -- because you don't have to worry about your positioning on the other airplanes because you're in the lead. Everybody has to maintain their spacing on you. That's my personal opinion. Some folks may not like that.

Q. How does your communication with the air boss change from a flight lead position?

A. So the flight lead will -- the flight lead airplane will communicate with the air boss if there's like a change from a racetrack to the 90/270 that we talked about because the flight lead is the one that's setting the pattern that the rest of the airplanes will follow. So there's a tiny bit of added communication that the trail airplanes, they just need to listen to know what's coming next. But they do not respond.

Q. Going back to the Wings Over Houston -- I'm going to call it the second act for you because I know --

A. Sure.

Q. -- you did the Tora! Tora! Tora!.

A. Okay.
Q. So -- and you're number three out of however many. When were you aware that the fighters were operating in the same box at the time you guys were? When did you become aware of that?
A. So I want to clarify your question, as far as the airshow box, they were up -- we were all aware we're all in the same box at the same time.
Q. At what point?
A. From the beginning, at the briefing. We were flying together.
Q. Okay.
A. So it wasn't like they just showed up out of the box. Or in the box, I'm sorry. So it was briefed that there would be the four bombers, and the two fighters. That was part of the World War II act, I don't know -- I don't remember what it was called on paper, but those airplanes were flying at the same time.
Q. Okay.
A. None of them in formation.
Q. So at no time was just the fighter group left to go shine by themselves? I'm sorry, the bomber group.
MR. LASCHE: (Indiscernible).
MR. COTTER: No, I understand.
MR. LASCHE: Yeah.
MR. COTTER: And I'm trying to recall exactly how the rest of the -- the rest of the show went.

DR. WOODS: Yeah. It's been a while, I understand.

MR. COTTER: Yeah.

MR. LASCHE: And I don't know if not seeing it, but box is a pretty imprecise term, and it doesn't really -- it means different things to different people, just so you know. There's no defined box that's common to everybody. There's your show display area, there's a speculator area, and things like that. But box is not something that's common that people would know that you were talking about the same thing.

BY DR. WOODS:

Q. Okay. I am talking about the airshow that is directly in front of an audience to which you were doing a performance specifically for the benefit of that audience.

A. Yes. That --

Q. That operating airspace.

A. And that's how I took it.

Q. Okay.

A. So, yes.

Q. So in -- and I know it was a while ago, again, in Wings Over Houston, was there no part where it's just like it's just the bombers' turn?

A. Not that I recall.

Q. Okay.

A. The only --

Q. That's fine.

A. The only time that typically is our turn is at the end of the act we'll come through for the photo pass where we do the arcing pass in front of the crowd, and that's kind of where you get a -- you get your 15 seconds of fame.

Q. Does that change from airshow to airshow that you've experienced?

A. Some airshows don't even do the photo pass. Yeah, we don't like that.

Q. Have you ever done any airshows not in Commemorative Air Force aircraft?

A. I've done them in my personal T-28.

Q. Yeah.

A. Yes.

Q. Okay. Sorry, that was a --

A. That's okay.

Q. -- curious question.

A. Yeah.

Q. So in your experience, it's usually like a package deal, you have bombers out there, you have fighters out there. And there's some sort of construct like, you know, either the fighters supporting the bombers, or in the instance of Houston, I think you said there was an aggressor there?

A. There was.

Q. Okay. So it was always a bit of a package in your experience?

A. Yes.
Q. Okay.
A. Because they're telling the World War II story.
Q. Yes.
A. And so that's --
Q. Okay.
A. -- why they put them up together.
Q. At what point do you know what story -- what part you're going to play in the story though?
A. Depends on what airplane I'm flying, and that's the part you're playing.
Q. But --
A. I have --
Q. -- it sounds like there's potential for change.
A. Not during the flight. It -- like when -- so I'll use the Sunday example at Houston. So when I was flying the B-17, my part was the B-17 part during the raid on Pearl Harbor. That's my part. And then when I got in the C-47, from the beginning, my part was to be the copilot in the number three airplane in the bomber stream or trail, however you want to word it. There's -- roles don't change during the act, if I'm understanding what you're asking.
Q. Yes. But then by your -- and I'm being -- I know I'm being very simple in this, but then by your explanation, if you had the same exact aircraft and they were all behaving from a Saturday

show to the Sunday show, there would -- there should be no different. It should be a carbon copy show Saturday to Sunday, if that is the case. But from what I've heard, it seems like it's a little more nuanced than that, that there is some things that might change quite literally on the fly. And absolutely, correct me if I'm wrong because I'm not there, I don't know.

A. And understand. So maybe what you're picking up on -- so -- and this goes to the big difference between a Tora! type act or the Blues air -- Thunderbirds type act, and I'm not comparing us to those guys. I'm just saying that's a scripted -- it's the same thing every time, no changes. Same pilots.

MR. LASCHE: Approved maneuvers package.

MR. COTTER: Yes. We had different pilots flying those for use in Houston. Once we got away from the scripted act, different pilots flew Saturday and Sunday. It wasn't the same pilots. Same airplanes flew.

BY DR. WOODS:

Q. Yeah.

A. But we had different pilots.

Q. And I appreciate that. But as you said before, if I am in a C-47, I have a certain role. If I'm in a B-17, I have a certain role. The aircraft didn't change. Therefore, by your explanation, it would -- seems I would expect a carbon copy, cookie-cutter show from Saturday to Sunday. But that's not the case.

A. So part of the change -- I think I understand what you're asking.

Q. Okay.

A. When you have a different pilot flying in non-scripted shows, the show will change slightly just because those pilots will fly it slightly different than the pilot the day before. You know, they may make the turn sooner, may make the turn steeper. So it changes how it -- how it flows a little bit.

Q. Okay.

A. Like if you do that duster turn on the end, if I do it, it's going to stay in pretty tight. A different pilot may make a bigger circle so it takes the string out. Now the airshow got strung out, and so that changes it from how it was yesterday. If I -- is that --

Q. So then --

A. -- what you're asking?

Q. So then where do you categorize changes such as P-51 going from right to left between a C-47 and a B-25? Now do you kind of get where I'm going with the line of questioning is, oh, how much liberty is there for change during the course and the execution of these shows?

MR. LASCHE: Do you want to talk offline?

MR. COTTER: Yeah. Can we just a minute?

MR. LASCHE: Can we just step outside?

MR. ETCHER: Let's take a five-minute pause. Off the record

at 3:16.

(Off the record.)

(On the record.)

MR. ETCHER: And back on the record at 15:26 local.

BY DR. WOODS:

Q. Okay. Okay. John, I will --

A. Yeah.

Q. I will kind of back off that line of --

A. No, it's okay.

Q. -- questioning.

A. It's all right.

Q. I guess -- yeah, my point was that you had an unusual situation, and -- while you were flying in the bomber group at Wings Over Houston, and I'm just trying to kind of figure out how often does that situation happen? Has it ever happened to you before in the past or since? And what's your threshold for that should not happen again for not right?

A. Understand. So the bombers stream and all the stuff at Houston was the typical airshow.

Q. Okay.

A. But when you start talking about the fighters, the typical fighter situation is where they're on top like we talked about earlier. They're not typically intermixed at our altitude, meaning the fighters and the bombers. We also do not cross paths. The reason, personally -- I mean reason, that's not the right

word. I feel that it happened in Houston because of -- it was -- go back to the orchestra thing that I was talking about, and that's what the P-51 pilot was told to do by the air boss.

You asked -- you added to your question if I had experienced something similar before, and that wasn't part of the earlier question, so I can say yes to your addition. I was flying in another show with the -- at another airport with the boss from Dallas from the accident day in a C-47 again with the same pilot that I was flying with at Houston. And we were doing racetracks behind the crowd, and there was other airplanes doing racetracks in front of us. So we're back here, and this other aircraft was in front of the crowd doing the racetrack.

And we were directed to come into our show line as was the other airplane by the air boss. And so it was very freeform. And I could see the conflict and it's based on experience. I mean it's -- there ain't nothing special, it's just -- I can see what was developing because having some experience. And we were going to be close to the same point at the same time. And we turned out, we told him we're not doing this, we're out. And we turned away. And so we -- then we came through, we reset, and then came through afterwards.

So there was those things -- that was because it was so freeform, that's how we ended up with that P-51 at the angles. And my understanding, you know, this is just going to be all understanding and I have no facts, they had issues the prior day

at Houston and pilots from that -- the day that flew -- pilots that flew on Saturday expressed extreme displeasure of the freeform that took place on Saturday to the air boss on Sunday morning before the briefing.

Like I said, I don't know what was discussed. I just know the pilots were very unhappy. We were not happy at the end of the day on Sunday, the ones of us that saw what happened, and, you know, we talked about it, and we ended up talking to Jim about it later. But it was -- I mean it was after the Dallas thing.

Q. So given what you know now and have experienced, and going back to that question I had before about like expectations for your air boss because they're your air boss. They're not the audience's air boss.

A. Right.

Q. Right? They're the performers' air boss, at least in my limited understanding of things. Did those experiences meet your expectations?

A. No, because they -- I see that as -- so I mean it's unnecessary risk.

Q. And I recognize that hindsight is definitely 20/20.

A. Oh, yeah.

Q. Knowing what you know now, let's say after the incident in Houston on Sunday, how would you have handled the after -- the after-action differently? Would you have handled it differently?

A. Well, like you said, hindsight's 20/20, I wish I would have

talked to Jim six days sooner.

Q. Yeah.

A. You know? One of the things that I have a huge issue with, and so this -- I believe I talked to one of your coworkers after the accident and made a statement and that's about the Houston stuff. And that's -- I mean that's why you have the stuff on Houston. The air boss from Houston asked me if I had talked to the NTSB.

Q. When was that?

A. It was like in December, I don't know the date. On or about December. And --

MR. HEATH: After the accident?

MR. COTTER: Yeah. After the accident. Asked if I had talked to the folks who were doing the investigation at the time, you know, asking who, you know, the initial stuff. And I said, yes. And he's like what, what about the P-51? You know? And he's like, well, he wasn't at your altitude. He was way above you. So the part that I -- that really bothers me about that is he was so dismissive of my concern over it, and I know for a fact he's wrong. So it just goes to -- but take it for what you want. That just bothers me.

BY DR. WOODS:

Q. Out of curiosity, I guess, in what situation -- are you casual acquaintances in addition to professional workers with either air boss?

A. We're both on the airshow board for Houston. I'm the vice chair and he's an advisory to the board.
Q. Okay. Because I was wondering what -- under what -- when were you together --
A. Yeah.
Q. -- to where this --
A. Yeah.
Q. -- kind of conversation could happen?
A. That conversation did not take place at a board meeting. I don't remember exactly where it was.
Q. Okay.
A. But that's how I know him outside of --
Q. Okay.
MR. HEATH: ICAS maybe.
MR. COTTER: It might have been ICAS. And that's typically in December. And that's why I think it was in December. But it was soon after we had spoken.
DR. WOODS: I think that's all I have. I appreciate it. Thank you. Very informative.
MR. ETCHER: Okay. (Indiscernible).
DR. WOODS: Or Bob.
MR. ETCHER: Bob.
BY MR. HEATH:
Q. Just a quick question. So sounds to like you're describing some potential mid-air incidences with these -- with this air

boss, and it's happened at another show before. Have you had these type of potential mid-air incidences with other air bosses?

A. No.

MR. HEATH: That's all.

MR. ETCHER: Okay. Thank you. Round two's always quicker.

MR. COTTER: Okay.

MR. ETCHER: Not going to say a lot quicker --

MR. COTTER: All right.

MR. ETCHER: -- but it's always quicker.

MR. COTTER: All right.

MR. ETCHER: You ready? You good to go?

MR. COTTER: Yeah. I'm good.

MR. ETCHER: All right.

MR. LASCHE: It's the bonus round.

MR. COTTER: It's the bonus round. All right.

BY MR. ETCHER:

Q. Yeah.

A. (Indiscernible).

Q. Bonus for somebody, I'm just not sure who, right? I actually don't have a lot of questions.

A. Okay.

Q. Because you've given me a lot of info. And again, I'm grateful that these are recorded and transcribed because my memory, no way will I retain a fraction of what you -- the knowledge you guys have given me, so I do appreciate that.

There's no easy way to ask this, so I'm just going to be blunt and ask it.

A. Okay.

Q. Is there any air bosses you refuse to work with?

A. Yes, but he's no longer an air boss.

Q. Okay. So there was in the past --

A. Yep.

Q. -- an air boss? Okay.

A. I never had to refuse. It was when -- after I flew with him the last time, he didn't boss after that.

Q. Okay. May I ask why? Why would you refuse to fly with him, or would not want to fly with him --

A. In --

Q. -- being your boss?

A. In the middle of the airshow, he just disappeared from the radio.

Q. Okay. That --

A. And so we had to figure it out in the air.

Q. I assume you weren't doing your Tora! Tora! then?

A. No, we were not.

Q. Okay.

A. No.

Q. All right. Fair enough. I just -- I figured I better ask that just to -- so --

A. It's a fair question.

Q. And I appreciate your honesty.
A. Yep. And he's not in -- he's no longer with us.
Q. Okay.
A. So I mean it's -- he's, obviously, not going to be an air boss again, so --
Q. Okay.
A. -- that risk is not there.
Q. Okay. All right. If it would come down to it, what is your mechanism to say he's an air boss at this airshow, wherever, that I'm supposed to go to, not happening? What's your mechanism here at the CAF to be able to do that?
A. Oh, at any time anyone of us can say we're not going to fly with --
Q. Okay.
A. -- individuals. If I think it's a -- I mean if I'm going to make that stand, these guys are going to know about it.
Q. Okay. Okay. Perfect. I just want to make sure there's -- you have -- comfortable with the mechanism, so.
A. Yes.
Q. All right. I know -- I think I'm still just a little confused --
A. Okay.
Q. -- on altitudes.
A. Okay.
Q. Bombers, fighters, does an air boss pre-brief -- have you

seen air bosses pre-brief altitudes? We're not talking your Tora! Tora!.

A. I understand. Yeah.

Q. Have they ever pre-briefed during the morning briefing altitude restrictions for fighters versus bombers? Have you ever seen that?

A. Yeah, typically we would brief what the -- what the bombers will be at, like in front of the crowd, you know, 100 to 200 feet. And then what we're climbing to either on the duster turns when we still did those, or on the downwind on the racetrack, so the fighters know to be above us.

Q. Okay. So you have vast experience in doing air shows, and I'm not -- again, we're not talking Tora! Tora! here. Just --

A. Understand.

Q. -- airshows. Have you ever experienced a time, and we're not talking your cut in front, the P-51 in Houston event. Have you ever experienced a time before where the fighters are coming in on a flight momentarily parallel to the bombers, and then pass in front of them? Have you ever experienced that?

A. So are you saying cross our flight path?

Q. Mm-hmm.

A. Is that your question?

Q. In theory, accelerating faster because they're fighters --

A. Understand.

Q. They got all the --

A. Yeah. Understand.
Q. -- giddy up and go. I'm sorry, say that again.
A. No.
Q. No. You've never experienced that?
A. No.
Q. Okay. Would -- you're the left seat guy, I'm the right seat guy.
A. Okay.
Q. You hear that, and you hear the boss saying that. Maybe it wasn't briefed. Maybe it was. But it's happening. Can you -- if you said, we're not doing this, forget that. What do you do? You're the left seater, what are you going to do if you're like, dude, we're not letting them fight parallel and then cutting in front of us. What can you do?
A. Well, I haven't experienced it, so I don't know the -- how to --
Q. But let's just say --
A. -- honestly.
Q. -- what would you do? If you were in that situation, would you climb, turn out, turn?
A. Well, you can't do that because if you've got the question of where the fighters are, you can't --
Q. Right.
A. You can't move because you might move into their path. So it's really a hard question for me to answer.

Q. Okay. And that's okay if you don't -- because that -- thankfully --
A. Because I haven't had a --
Q. -- you've never experienced that.
A. I haven't had that experience. I mean the short answer is is you're going to question the air boss if you pick up on what they're doing, what are we doing here? But beyond that, you want to keep your line because you don't want to be going somewhere where they don't expect you to be.
Q. Right. And -- so I guess in my brain, I'm visualizing in that scenario, you might be a little -- if you're in the -- if we're in the bomber, you and me flying, we might feel a little boxed. Like we don't have an out. Is that -- I mean to me that's how I'd feel, but I don't fly airshows. And so I'm trying to see is there an out for you?
A. Well, the out's you call a knock-it-off.
Q. Okay.
A. I mean that's the only out you have, and then you expect the air boss to help you figure it out. Everybody goes wings level.
Q. Okay.
A. And then it gets sorted out.
Q. Okay. And --
A. (Indiscernible).
Q. -- that's good. I appreciate that. Have you ever had to a call a knock-it-off in a --

A. That airshow that I told you about with the boss I wouldn't fly with anymore.
Q. Okay. You called knock-it-off? Okay. How was that received?
A. The CAF folks knocked-it-off. There's another airplane there that didn't.
Q. Okay. Okay.
A. Yeah.
Q. But was that -- when you called knock-it-off, does that -- there's no easy way to ask this. Does that make the air boss agitated because, hey, what are you doing? Or do they -- is there --
A. I don't know. He didn't answer.
Q. Solid point. Okay. You're right. Moving on off of that question. Good point, right? Yes. Thank you.
A. Yeah. But just to be clear, all air bosses including the ones you guys have been asking about today, in the briefing, I've never heard one not say anybody could call a knock-it-off, meaning he can call a -- he or she could call a knock-it-off, any of the pilots could call a knock-it-off.
Q. Okay.
A. If you're taxiing on the ground, you can call a knock-it-off. Anybody. It's stated.
Q. Okay.
A. Okay.

Q. Good. I just wanted to make sure that's clearly stated. When you're -- when -- I'm going to be flying with you.
A. Okay.
Q. I'm in the right seat, you're in the left seat. Thank goodness, it'll be safer that way. But if you're told -- if we are told join a thousand-foot line, I assume that's the way they would tell you.
A. Uh-huh.
Q. Okay. If we're told to join a thousand-foot line, what is your expectation of where to join that line? Do you join it coming into the airport? Do you join it by mid-field? Where do you expect you to be on that line at?
A. So you want to have join the line prior to being inside your corner markers.
Q. Okay.
A. So to be in wings level by the time you get to that point, you have to be a little bit extended from that.
Q. Okay.
A. Does that make sense?
Q. It does.
A. Okay. And it's different at every show, physical distance because the show line in Dallas is really short compared to the show line in Houston. So in Houston from the center of the airport, we may be two miles from the center of the airport when we line up. And Dallas, you might be three-quarters of a mile --

Q. Okay.
A. -- because the show line's shorter.
Q. Can you recall where the corner markers were for the Dallas airshow?
A. Yeah, the corner of this building.
Q. Okay.
MR. LASCHE: I can show it -- I can send the --
MR. ETCHER: I was just wondering if he could remember it.
MR. HEATH: There's a wall right behind you if you want to look at that.
MR. COTTER: This is us, isn't us?
MR. HEATH: No, we're down here.
MR. COTTER: No. We're right here.
MR. HEATH: We're right here. Yeah.
MR. COTTER: Yeah. Oh, down here.
MR. HEATH: Yeah.
MR. COTTER: Right here, and if I remember right, right there.
BY MR. ETCHER:
Q. So intersection runway intersections where they cross, and the CAF building, that's your markers?
A. That's what I remember.
MR. LASCHE: Yeah, there's --
MR. ETCHER: Okay.
MR. LASCHE: There's a corner marker here, and then I think

isn't the corner marker at the other end because his --

MR. COTTER: No, because --

(Crosstalk)

MR. COTTER: Because our arcing pass goes here. We go out straight on the -- on the arc because the crowd's here.

BY MR. ETCHER:

Q. So you were descending on this right about -- you were on -- the line you were going for is the thousand-foot lines right here?

A. No, right here, 500-foot line --

Q. That's right.

A. -- is here.

MR. LASCHE: You're correct.

MR. COTTER: And then --

MR. HEATH: Okay.

MR. COTTER: There's --

MR. HEATH: Here's the --

MR. COTTER: There used to be a -- there used to be something here that actually you could -- it's not on this picture.

MR. HEATH: Yeah. It was that tree line.

MR. COTTER: Is that what it was?

MR. HEATH: There was a tree line.

MR. COTTER: Okay. Because there was a -- there was a physical something out here that --

BY MR. ETCHER:

Q. Okay.

A. -- we could see where the thousand-foot line from the air.
Q. Okay. Okay.
A. Yeah.
Q. Great. No, that's -- I just wanted to understand that. So, okay. Perfect. Yeah. That is kind of a short corner, isn't it?
A. Uh-huh.
Q. Is that hard to hit those corners?
A. Oh, no.
Q. Okay.
A. No, I like short shoaling (ph.).
Q. Oh, do you?
A. Yeah.
Q. Okay.
A. Yeah. Long shoaling harder to do a photo pass --
Q. Okay.
A. -- because you can't keep the arc. You have to roll wings level.
Q. Okay. I wasn't sure. I mean these planes are not small, so I wasn't sure, you know, how agile they are to --
A. Oh, they're not.
Q. Okay. All righty. You've been involved in, like I said, many airshows in the past. Have you ever, while you were up doing your airshow photo shot, photo, whatever, pass, not your Tora! Tora!, have you ever had to them land an airplane on your runways --

A. No.
Q. -- that you're flying over?
A. No.
Q. Is that -- would that give you any concern? Or would you even notice? I know it's never happened to you, so --
A. It depends on the situation. I might notice --
Q. Okay.
A. -- just because -- I mean, and I might not hear it, nor I might not see it. Depends on where it was at.
Q. Okay.
A. So.
Q. Okay.
A. And I have no idea.
Q. No problem. So be blunt, please, with this answer. Freeform, how do you like it, air boss freeform, and he gets to freeform some stuff in the show, in your professional opinion, how do you like those?
A. You're asking my professional opinion or if I can fly it? There's a difference.
Q. Well, then since you bring up the difference, we'll ask both.
A. It's fun to fly.
Q. Okay.
A. But from -- well, and hindsight's 20/20, we can't continue with the freeform.
Q. Okay. All right. So normal airshow, and I just want to

clarify, not Tora! Tora!.
A. Understand.
Q. How far do they --
A. How about -- how about we qualify this? Unless you tell me it's Tora!, it's not Tora!.
Q. We'll go with that.
A. All right.
Q. I won't have that many more questions --
A. Okay.
Q. -- so we should have clarified that a long time ago. But, yes.
A. It's all right.
Q. When you get your sequence in the morning brief, is there -- I mean is it explained to you, okay, you're taking off at, I'll just pick a number, 11:00 o'clock. And you're going to do five passes with the final being, you know, the photo pass where everybody gets to take a picture. Is that explained to you, or is it just here's your time slot, this is when you're wheels up?
A. So I have to ask you a question. Are you asking about Dallas and Houston, or are you asking about in general? There's a difference.
Q. Why is there a difference?
A. Freeform.
Q. Do --
A. You just asked that question.

Q. I did.
A. Yes.
Q. But did the -- does -- do other air bosses freeform, or is it only the --
A. Not like -- not to that extent that we had at Houston.
Q. How about to the extent here in Dallas?
A. I mean it's very similar to Houston.
Q. So that doesn't happen with other air bosses?
A. Not to that degree.
Q. What --
A. Things can change because of the dynamics of -- I mean it's all moving, right, so that can change. And so it can be changed. But typically, it's like now we're going to take off, we're going to do racetracks, and then you'll do a photo pass and recover.
Q. Okay.
A. And then during the show, it's like, no, we need -- we need an extra racetrack because we're trying to fill time or something. Or you get another photo pass. But it's not freeform. It's typically briefed.
Q. Okay. Okay.
A. Does that answer the way --
Q. It does.
A. -- what you're asking me?
Q. It actually does. It clarifies a lot, so I appreciate that. That clarified more than I thought it would.

A. Okay.
Q. Did you see the little light bulb come on?
A. Yeah. Yeah.
Q. Okay. Good.
A. I thought that was.
Q. It was dim, I know, but it was -- it was -- there was a bulb. Okay. No, I do appreciate that. Let me just check my list here one last time just to make sure I'm not missing anything. I think I asked this question, but I did not remove it from my highlight.
A. Okay.
Q. So I'm going to ask it again --
A. All right.
Q. -- just to make sure.
A. That's fine.
Q. Have you ever been in an airshow where the fighter's parallel, similar altitude as a bomber, and cut in front? I really think I asked that --
A. You did.
Q. --already.
A. And, no, I have not had that --
Q. Okay.
A. -- had experience.
Q. Okay. I just -- I didn't remove the highlight.
A. It's okay.
Q. So my apologies for re-asking that.

A. (Indiscernible).

MR. ETCHER: All right. That is all I have. Again, thank you so much.

MR. COTTER: Sure.

MR. ETCHER: Let me make sure Sabrina doesn't have any others, and she probably does.

BY DR. WOODS:

Q. Actually, moving away from the performer aspect specifically, did I hear earlier that you are on the standardization team for Commemorative Air Force?

A. I am. I'm one of -- I don't know how many total's on the team, maybe 12 of us?

MR. LASCHE: There's only eight now.

MR. COTTER: Is it eight? Okay. All right.

BY DR. WOODS:

Q. And that's -- you hold that position currently?

A. I do.

Q. Can you give me a quick synopsis of what that entails? What do you -- what does that person do?

A. So we're part of a team of CAF pilots with a few years' experience in -- and in different things because we may have guys that are just fighter pilots for the CAF. We have guys that have bomber experience. We have guys that solely flown on the trainers. And I don't know how to fighter pilot. I do, but a fighter pilot may not know the dynamics of a bomber pilot, you

know, because the airplanes are different.

And so part of the structure -- I mean we're involved when pilots are upgraded from being just a pilot in the CAF to being an instructor pilot. So Bob collects the information, the resumes, and, you know, recommendations or anything on that particular individual, and shares it with us on the committee. And we talk about it via email, you know, hey, I know that guy, he's great. flown with him. Thumbs up. Or it's like, hey, might want to, you know, might need a little more time based on our experiences, like, you know? And if it's a -- somebody we're upgrading to an instructor in a four-engine bomber, it's like, yeah, maybe he needs to fly it just a little bit more, have a little more experience. That's our primary thing.

And then anytime we bring somebody into our fighter ranks, because, you know, those are pretty high-performance airplanes, Bob does the exact same thing to ask if we think that they're qualified above and beyond the minimums that are specified in our regulations. And if they are, then they're approved to go receive training and extra check rights before moving into the fighters, and that's all done in a T-6 or a SNJ.

Or if we have concerns about somebody that can be remedied, like I need some more experience, then we find a path so they can get that extra experience. And then they can move into whatever that airplane was. That's our primary responsibility.

Bob and Jim also talk to us if we're going to make regulation

changes, you know, to see if we think that, you know, the way it's written or do we need to do this, or, you know, ask our input kind of a collaborative group effort.

Q. I'm going to swear that you guys are looking at our notes. So with that, we hear that there's been a recent change to your local guidance, the 60-1. Were you a part of that change, did you serve any purpose in the formatting of that change?

A. I was not.

Q. Okay. But you are aware that has taken place?

A. Absolutely.

Q. And have you had a chance to read it over, absorb the new content?

A. I've read it. Don't ask me questions. There were changes to --

MR. HEATH: Yeah.

MR. COTTER: And it goes to limiting the freeform that we were talking about.

BY DR. WOODS:

Q. From a CAF performer point of view?

A. Our -- yes.

Q. Okay.

A. For our airplanes, our -- and our pilots in our airplanes, and if we're flying with anybody else. So if we went to a show and there was a different museum participating with us, and they want to do something that's not in our allowed within our new

regulations, then we can't fly with them.
Q. Okay.
A. It's that easy.
Q. You don't fly with them as in --
A. We will fly with them --
Q. -- together? Or you don't fly with them at all in an airshow?
A. We wouldn't fly in the same display area.
Q. Okay. Okay.
A. If they didn't want to -- if we couldn't agree to follow the same guidelines.
Q. And that's what I thought you meant, but I wanted to be sure, like I know that there is often obviously different acts at multi-act airshows, and like once you leave or vacate --
A. They can do whatever they want.
Q. -- then they can do whatever they want.
A. Yes.
DR. WOODS: Okay. I think that's all I have.
MR. COTTER: Okay.
DR. WOODS: Yeah.
MR. ETCHER: Bob?
MR. HEATH: No, I don't have anything. Thank you.
DR. WOODS: Okay.
MR. ETCHER: Okay. Well, we've asked you a ton of questions.
MR. COTTER: Yeah.

MR. ETCHER: And you've educated me a ton. But I'm always afraid if all the questions we've asked missed an important one that you're like, man, if they would just ask me about this, it might help them. I mean you already saw the light bulb come on my head a little bit, but is there any questions that we didn't ask that you were like, man, I'm really shocked they didn't ask this?

MR. COTTER: No, not really.

MR. ETCHER: Okay.

MR. COTTER: I just hope you get the opportunity to talk to other folks from the Houston show. And you -- I mean you know who they are. I mean it's in your records, so.

MR. ETCHER: Okay.

MR. COTTER: Because they'll have a different perspective of that same event.

MR. ETCHER: Your perspective was unique enough.

MR. COTTER: Well --

MR. ETCHER: -- for me. But, yes, no. I get it. And you still have a question --

MR. COTTER: You got a question now, don't you?

MR. ETCHER: No. Go ahead. We'll allow this once.

BY DR. WOODS:

Q. I understand that you want us to look at what took place during the Houston show, but in that incident, and again, for the record, we established, that that was not the air boss that controlled the Wings Over Dallas airshow when that accident took

place. So what do you see is the link -- in your experience, in your opinion, what do you see is the link in understanding what took place at Wings Over Houston with what took place at Wings Over Dallas? Why is it important that we look at the previous when they're two different people?

A. So as we talked about earlier, we established they're related, it's a father and son team. My understanding is they own -- the company they own together. I don't know if that's a fact or not, I just -- there is -- from my perspective, it was a mentor/mentee to get Russell his training, the son, from his father, Ralph. And so the reason why I would like you to talk to the other pilots from Houston is so you can see they may have seen something different than I seen. And so I want -- so it gives you guys the bigger picture.

But I see the tie-ins between the two because they run their shows very similarly, and if our show in Houston -- it's kind of like looking at the links, if you look at what happened in Houston, it is similar, in a way, to what happened here at the Dallas show. We were lucky maybe. Our six friends weren't lucky here. And so if -- because the shows are run similarly, then we need to make sure that that doesn't happen again.

DR. WOODS: Thank you for that. All right. I promise I'm done now. Thank you.

MR. ETCHER: Are you sure?

DR. WOODS: Yes.

MR. ETCHER: Okay. Well, Bob, we just want to give you one last opportunity to --

MR. COTTER: No questions.

MR. ETCHER: All right.

MR. COTTER: I don't have any questions.

MR. ETCHER: Well, with that, we will call this interview concluded at 15:58 local time. And again, thank you so much for --

MR. COTTER: Yep.

MR. ETCHER: -- coming in --

MR. COTTER: Yeah.

MR. ETCHER: -- and educating me.

MR. COTTER: Thank you.

(Whereupon, at 3:58 p.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 22, 2022 Interview of John Cotter
ACCIDENT NO.:	CEN23MA034
PLACE:	Dallas, Texas
DATE:	August 10, 2023

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.



Jami McNear
Transcriber

On-Scene Interview: Matthew Hood

Representative: None
Date/Time: November 14, 2022 / 1430L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview Matthew Hood stated the following:

He was a volunteer pilot and mechanic helper for the CAF and has flown several different aircraft. That day he was assigned to fly on Diamond Lil (B-24) for 2 previous "ride flights" and then moved to the right (copilot) seat during the airshow.

The previous day had inclement weather but still had the briefing that he and everyone else attended. The accident day, they had a good similar brief from the Air Boss and took notes and then they specifically broke to the side and talked about their role with their group of aircraft which included Texas Raiders (B-17), Diamond Lil and Fifi (B-29) and then met with the Air Boss. They had the normal briefing and then briefed together to make sure that everyone was clear, they broke off to the side and continued the discussion to make clarify that all their notes were correct with times and who was going to what during the airshow. That was only the bombers, the fighters were not there.

During the day, they coordinated with the B17 crew as both came and went for "air rides" and then it was time to start the airshow. They followed the B17 out as briefed, once they received the word to start engines. Everything proceeded exactly as briefed for a several runs.

On the incident run, he was following the B-17 on a normal pass as briefed. From the right seat of the B-24, he could see the P-51 and P63 approaching from the left and then he observed the P63 cutting over in front of them and that's when he observed the contact of the B-17. He saw the debris and the tail leave the aircraft and then the rest of the incident.

At that point they off their pass and followed briefed procedure after the Air Boss made the knock it off call. They eventually diverted to Lancaster.

Interview concluded at 1455L

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
FATAL COLLISION AT WINGS OVER	*	
DALLAS AIRSHOW AT THE DALLAS	*	Accident No.: CEN23MA034
EXECUTIVE AIRPORT IN DALLAS, TEXAS	*	
ON NOVEMBER 12, 2022	*	
	*	

Interview of: MATT HOOD, Pilot
Commemorative Air Force

Dallas, Texas

Thursday,
August 10, 2023

APPEARANCES:

DR. SABRINA WOODS, Investigator
National Transportation Safety Board

SHAWN ETCHER, Investigator
National Transportation Safety Board

JIM LASCHE, Chief Aviation Officer
Representative

BOB HEATH, Director
Commemorative Air Force

I N D E X

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I N T E R V I E W

(4:12 p.m.)

MR. ETCHER: And good afternoon. It is August 10th at 16:12 local time. My name is Shawn Etcher. I'm an operational factors investigator with the NTSB. All that means is I look at everything forward of the cockpit door and how it interacts with the crew, and you're here because you were at the event that we're investigating. And so we want to kind of learn what you saw and kind of how that interacted as well. Thankfully, I don't have to know it all. I have some great colleagues with a lot of intelligence to help as well, and one of those is Sabrina. I'll have her introduce herself in just a moment and also, we can't know everything and I definitely don't know everything CAF so that's what Bob's here for. He's the CAF subject matter expert. So I want to go around the room and have them introduce themselves to you and then continue. Sabrina?

DR. WOODS: Hi, Matthew. I'm Dr. Sabrina Woods. I'm the human performance investigator that's been assigned to the case. We work in complement quite often with the operations investigators. While he looks at everything kind of forward the cockpit door, I'm looking at everything that's in the operating environment in which humans have to exist. So I look at some of the things that help and enable you to your job and also some of the things that might detract from you doing your job as well.

MR. HOOD: Okay.

MR. ETCHER: Thank you Sabrina. Bob?

MR. HEATH: For the record, my name is Bob Heath. I'm the Director of Operations for the Commemorative Air Force and Matt and I are acquainted with each other.

MR. ETCHER: Okay, great. Those are the only three of us that will be asking you questions today.

MR. HOOD: Okay.

MR. ETCHER: Is there any of us you don't want here?

MR. HOOD: No.

MR. ETCHER: Okay.

MR. HOOD: Everything is great.

MR. ETCHER: Perfect. Today we're going to be using a digital recording and that digital recording will be sent off to our transcriptionist, and the recording itself will be transcribed. That transcript will become part of the public docket. The audio portion will not. Do you have a problem with -- is it okay if we record and transcribe?

MR. HOOD: Yes.

MR ETCHER: Okay, perfect. As part of our regulations, you're entitled to one representative of your choosing if you wish to have one. Do you have somebody you'd like to have be with you during this interview as well?

MR. HOOD: I do. Mr. Jim Lasche.

MR. ETCHER: And for the record Jim, would you please state your name?

MR. LASCHE: Sure. Jim Lasche, CAF, Chief Aviation Officer.

MR. ETCHER: So before we start the interview, I want to set a few ground rules if you will. During the interview, I ask a lot of questions. Sometimes my brain thinks it's a genius question and it doesn't come out my mouth the same way it's supposed to. So if I ask a question that you don't understand, it's okay. Ask for clarification. It's a two way street. If you give me an answer I don't understand, I'm going to ask for some more clarification as well. So it goes both ways. This is not a check ride. It's more a conversation. You're here to help educate me and I do appreciate you coming in to do that.

MR. HOOD: Okay.

MR. ETCHER: If you need a break, use the restroom, confer with your representative, anything at all, just say so. We'll hit pause and take a break as much as we need and then we'll resume.

MR HOOD: Okay.

MR. ETCHER: One of the most important rules I always have and it's why I kind of want to make sure everybody knows this isn't a check ride. If you don't know an answer, I don't know, I don't recall, that all works perfect. So don't hesitate to say that if you don't know. We like dealing with facts but sometimes you just don't know and that's okay. Sometimes you have an opinion, and maybe we'll ask for your opinion, that's okay. Just let us know if you're giving an opinion.

MR. HOOD: Okay.

MR. ETCHER: So when I'm reading this transcript three weeks from now and kind of refreshing my memory, I can remember oh yeah, that was his opinion because you said it. So if you could help us with that, that would be great.

MR. HOOD: Okay.

MR. ETCHER: Before we get started, do you have any questions?

MR. HOOD: No.

INTERVIEW OF MATT HOOD

BY MR. ETCHER:

Q. All righty. I always like to get the hardest questions out of the way first so can you please state your full name and spell your last?

A. My full name is Matthew Garrett Hood. Last name is spelled H-o-o-d.

Q. Perfect, and do you have any airman certificates or ratings?

A. I do. I have an airline transport pilot certificate with five type ratings including experimental authorization for the LB30 or the B24 that we were operating on the day in question. I also have a certified flight instructor certificate with single multi and instrument ratings. I also have a commercial glider certificate, commercial seaplane. Ground instructor, both advanced and instrument. I also have an airframe and powerplant mechanic's certificate.

Q. Excellent, thank you. Do you have a current medical?

A. I do. I carry a first class.
Q. All right. Any limitations?
A. Eye glasses.
Q. Okay. We all have those as you can see. Concerning all those certificates you have, do you have a ballpark on how much flight time you have total?
A. Just over 14,000 hours.
Q. Okay, and how about in the B24 you were flying?
A. I'd have to review my records but less than 100 total.
Q. Okay. How long have you been flying the B24?
A. Approximately a year and a half.
Q. Okay.
A. Yeah.
Q. Perfect. So just for the record, were you flying the day of the event here at Wings Over Dallas?
A. I flew first two legs where we flew passengers in the left seat, and then Al Benzing and I traded seats and I was in the right seat during the Wings Over Dallas airshow portion.
Q. So when did you fly passengers in the B24?
A. The first two legs of the day before the airshow began.
Q. Okay, and do you have an approximate time when you flew those legs?
A. Our first passenger leg was immediately after the airshow briefing, so I'm estimating around 9:00 a.m. local.
Q. Okay. All right, so you were at the airshow briefing?

A. Yes.
Q. Okay. How many airshows have you been to?
A. This was --
Q. That you've been performing in? Sorry.
A. I understand. This was my first airshow as a crew member and I was also present for the briefing that occurred the day before. So two briefings you know, for the day.
Q. Okay, so we're going to kind of walk through the day of the event if you will.
A. Sure.
Q. We'll start there with the briefing. I know you said it was your first airshow?
A. Correct.
Q. How did that briefing appear to you? When you came out of it, did you have any questions about what was expected of you? Was it clear? Kind of help us understand your viewpoint. Again, let me be that fly on your shoulder, if you will.
A. Sure. So as we're all friends, we congregated and sat next to each other with the people that we were going to be flying in and around. So all the crew members for Lil were near Fifi, our B29 aircraft that we are custodians of and Texas Raiders. And being my first airshow, I took a lot of notes on my kneeboard and the airboss was sure to give time to see if there were any additional questions. After he was done with his briefing, a lot of us bomber guys for our portion of the airshow separated into a

separate group and it had some clarification items. Mr. Bill Goeken helped conduct that with the airboss on the side. So it was the airboss, Bill Goeken, myself, Al Benzing, and the Raiders' crew. So we did have an opportunity to ask questions and move forward.

Q. What was some of that -- forgive me. Did you say clarifications? Questions? What was some of those that were brought up --

A. Sure.

Q. -- with the bomber group?

A. Yeah, no problem. So the airboss had a display of our flight patterns and so it was a good opportunity to take notes on that. It was identical to the day before so we were able to look at like our I-pads and draw that out so that we could take that with us into the cockpits so we didn't have any questions. But on that day, there was a further briefing on how we were going to bring all the bombers together and there was I think going to be a photo pass after the B29 took off and on that day, we were never able to arrive at that portion. So back to your question on the briefing. We went through the briefing for the Wings Over Dallas show that was for everyone and then the bomber people separated out and had some clarification on just our portion of when we were all going to form up, which we never had a chance to get to because of the accident.

Q. Okay, so as part of that briefing, did the airboss give --

and when I say you I mean you bombers, if you will -- give you altitudes you were going to fly at or did they give you any guidance like you're going to do X number of passes? You're going to do this, you're going to -- you know, did they script out, for lack of a better phrase, what you're -- what they were planning for you all to do?

A. I felt that it was scripted out, and I didn't bring my notes with me that I took on that day but I remember I made multiple bullet points so that there was no question.

Q. Okay.

A. And I wanted to make sure also that we had a good briefing inside our own aircraft with the other two gentlemen I was flying with. Mr. Jim Gentry was our flight engineer and Al Benzing was the other pilot, so we made sure that we were all in agreement with what was going to be happening that day.

Q. Okay.

A. You asked about altitudes. I do remember that an altitude was stated as a min, as a hard deck, specifically going past show center that would be good for PR reasons, photograph passes, and things like that.

Q. Okay.

A. And we absolutely had those written down where we could verify them in flight.

Q. Okay, and just for the record if you can recall, do you remember what that altitude was?

A. I'd have to look at my notes.
Q. And that's okay. I don't recall, I don't know --
A. Sure.
Q. -- it's all good. So you did the briefing. Did any questions come up with the big group? Let me rephrase that. Let me back that up for a minute. When everybody was in the big group, all the participants were being briefed, did the airboss provide an opportunity for people to ask questions?
A. I do remember that.
Q. Were there any that you can recall that were asked?
A. No.
Q. Okay.
A. I'm sorry, no I don't recall if anyone did ask a question. If they did, I don't remember it.
Q. Thank you for that clarification.
A. Yeah.
Q. I appreciate that. So the briefing is over. You bomber folks did your little communication and then I just want to make sure that I have your day in my head. Then you went out and flew two passenger plane rides, or?
A. Correct, and so that morning it was cool outside so we were trying to decide what we were going to do with our customers and whether or not we were going to start the airplane on one side of the airport or over there because it was cool and we thought about engine starting temperatures and things like that. So as soon as

the brief was over, we knew that timewise our customers were going to begin appearing and so expeditiously made our way to the aircraft, and we flew two standard customer rides that we routinely do. It was very routine and we saw Texas Raiders throughout the day because we parked next to each other before the airshow actually began. And then once we were through with our second passenger ride, that's when it was time to get in line and start together and taxi out in the briefed order that we had all discussed.

Q. Okay, and just for the record, the Texas Raiders are?

A. It's the B17 that was briefed to operate in the number one position on the line. We were in the number two position in the B24.

Q. Okay, perfect.

A. Sure.

Q. I just wanted to make sure I knew who the Texas Rangers were so I appreciate that. So it's time for you guys to begin your show -- or your aerial event. So you're with the Texas Raiders. You taxi out. Do you all take off together or does the B17 take off and then you guys take off?

A. One at a time.

Q. Okay.

A. Yeah, so we were the second bomber to take off behind Texas Raiders.

Q. Okay, and then you guys join up somewhere, and?

A. What we had briefed and what we had flown is that we were going to be in a trail formation so we were behind them, and then we had some distance goals to maintain throughout the first person -- the first portion of the airshow.

Q. Okay.

A. And some people refer to them as dog bones. And so Texas Raiders was briefed and they flew what they briefed as far as leading down the runway on their briefed line and then they were deciding when to make a turn, and then almost like teardrop around to return the opposite direction. And so we changed our power settings and speeds and bank angles to maintain that distance that was briefed. You know, coming around the side and then there were three aircraft behind us who were briefed the same.

Q. Okay. So there were -- you were number two out of five in your trail?

A. Correct.

Q. Okay. From your perspective -- and I know you have less than 100 hours in the airplane. I get that. But from your perspective is the B17 faster than the 24? Do you guys complement each other once --

A. No, and we had briefed that. So the B24 aircraft is more dense so different power settings, different adjustments to maintain the briefed distance that we wanted to maintain, so the B17 is a slower aircraft.

Q. Okay.

A. And I would refer to it as cubby, like a J3-CUB --
Q. Okay.
A. -- where a B17 is very dense. It takes a lot of power to accelerate and it doesn't decelerate very well where as a B17 would. So we were making a lot of power changes throughout the routine to maintain that distance.
Q. And I --
A. But it was briefed.
Q. Okay.
A. Yeah, and when we flew we briefed.
Q. And just for the record, I just want to make sure I have it in my head. I think you said the B17 is more dense or did you mean the B24?
A. Yes.
Q. Okay.
A. Thank you for the clarification.
Q. I may have misheard that, so my apologies.
A. And we had talked about that also before we launched of what our expectations were going to be with speed and power control to maintain the briefed distances. So we knew what to expect. And when I say we, I mean me and Al Benzing.
Q. Right. Your crew, I get that.
A. Yes.
Q. All right, perfect. Do you remember what that distance was that you were going to try and be in trail?

A. I want to say a quarter mile.
Q. Okay.
A. But I'm not sure. That was one of the other notes on my knee board that I had on that day that Al and I made sure to reference before we took off.
Q. Okay. Okay, so you guys take off. You're doing your passes. Do you remember how many passes you guys did that day by chance?
A. I'd be guessing with the number four.
Q. Okay.
A. So one down, two, three, four and then maybe on the fifth one, I'm not sure. I haven't looked at the ADS-B data. Just using my memory is when I believed the accident occurred.
Q. Okay. Was it just the bombers doing that pass? Was the fighters intermixed with you guys? Kind of help me understand who's all up in that space at once.
A. Sure. So there were three fighters and they were on wider line that I believe was briefed at 1,000 feet. We were operating on the 500 foot line. And so we were number two and there was five of us and then the three fighters. So eight total aircraft. And during the briefing I was mainly interested in our bomber section. Again, since it was my first airshow I wanted to pay particular attention to make sure my notes were thorough. So what was briefed with the fighter guys I sort of remember, but I wanted to make sure that what we were supposed to do, we were going to follow through with.

Q. Okay.
A. But what I observed during the flight was that they were operating on their 1,000 foot line. They could have been doing dog bones as well but our main attention was on the B17 in front of us because we were so interested in maintaining that briefed distance.
Q. Okay.
A. So it's almost like looking through a straw. We're looking at this aircraft and we're maintaining our power settings and speed with this aircraft alone.
Q. Okay.
A. Yeah, so if the fighters were over here, I didn't see them until later.
Q. Okay, so you guys were on the 500. Was that your assigned line?
A. Yes.
Q. The whole trip -- or the whole airshow?
A. Not sure.
Q. Okay. No, that's okay.
A. It was absolutely briefed as the beginning point.
Q. Okay.
A. Yeah.
Q. Was there a briefing -- did you guys when you all briefed maybe as a subgroup, as your bomber group, did you guys brief on this pass we're going to be here, on this pass we're going to be

here, at this altitude and on this line? Was it that detailed of a brief or was it more we're going to do so many passes? Kind of help me understand what you guys' subgroup briefing was.

A. I think as a large group all the briefings were very general principals but when we broke away, we were very interested in what we were going to do after the B29 took off and how we were going to rejoin in that formation for the photo pass.

Q. Okay. So there was not a lot of discussion of the events prior to the B29 joining?

A. Correct, we all -- well I didn't want to speak for them but nobody in our subgroup had any additional questions on what was briefed by the airboss for the beginning portion of the airshow.

Q. Okay, all righty. So you're up, we're flying -- well, you're flying -- or you're in the right seat, correction. You're in the right seat. Where are you looking during the flight? Do you just look at that B17 and that's it? You hold -- everything is based on them? Are you looking around? Kind of help me understand what you were doing?

A. Sure. So from my perspective it was a very dynamic environment. I also hold a formation card and so I've worked and trained with four ship formations.

Q. Okay.

A. And so there's different flight dynamics with power settings and bank angles to maintain those distances. So Al Benzing, the gentleman I was piloting with, we had talked about that and so we

had decided that we were going to work together as a team on when we should start a roll in, or increase power, or decrease power to maintain that distance with the Raiders. And so most of our attention was solely at our 12 o'clock to maintain that position because the densities of the aircraft are different and the speeds, and the power settings. So it was a lot of power changing and speed changing to maintain the briefed distance. To answer your question, we were solely looking straight ahead at that aircraft and making adjustments necessary.

Q. Okay.

A. There wasn't -- it wasn't possible to do a good job and put our head on a swivel and look around.

Q. Okay. When -- were you doing the adjustments on the power?

A. A lot of them.

Q. Okay, and did that seem comfortable for you? Okay for you?

A. Yes.

Q. Okay.

A. Yeah, so Al spent the majority of his time steering the airplane with the yoke and then pitch and bank, and then together we were verbalizing rolling in, rolling out, increasing bank, decreasing bank. I would verbalize increase in power. If he had a request, I would make that accommodation. The B24 has 12 power handles to make engine changes and we also have specific operating principals so if one lever needing to be ahead of another to save for engine longevity, and so that's why the decision was made on

the ground to work together as a team to accomplish that.
Q. Okay.
A. It would be a lot for one person to work 12 handles and maintain that distance.
Q. Okay. You must be looking at my notes because that's what I was going to ask. If that was something you guys briefed before takeoff, who would be doing the adjustments?
A. Correct, yeah. We identified that as a possible additive condition and we wanted to offset that with a resource block of a shared mental model before we took off.
Q. Okay, great. So you're up flying. You're focused on your -- you're not just focused solely on your adjustment of the levers. You're looking at the plane in front of you. I understand that.
A. Correct.
Q. Did you have headsets on to hear the airboss?
A. Yes.
Q. So doing all you're doing, watching the B17, adjusting power levers, how easy is it for you to monitor what the airboss -- kind of get that mental picture of what's going on out there?
A. I would describe it as you hear everything but you listen to things more specifically. So if you heard someone calling you specifically, then you would listen more intently. So if they were calling our aircraft by either Diamond Lil or number two, then I would listen more. But if the airboss was making general transmissions, I'd kind of get it in the peripheral.

Q. Okay.
A. Yeah.
Q. So did the airboss call each aircraft specifically or did he lump you guys as bombers or Raiders, or?
A. I remember both.
Q. Okay.
A. So if he said bomber group, we would have a clear understanding of what his intent was or if he called us individually requesting something, then we would understand what that meant also.
Q. Okay. Did you have to key up the radio at all to respond or was that something you guys just don't do?
A. I believe there were times where we'd respond whether it was like for a takeoff clearance.
Q. Okay.
A. And it could be some -- I mean I don't remember the exact words but you know, if there was a takeoff clearance issued, my response would be Lil is good to go, or Lil's rolling. Something like that so that way the airboss knows that I received and understood the instruction and was complying with it.
Q. When you were airborne during the maneuver did you guys have to transmit that you can recall?
A. Prior to the accident or after?
Q. Prior.
A. There was -- I would think that during taxi and ground

operations and then for takeoff for sure as an individual group, and then after that I remember the communication to each of us as a group not individually --

Q. Okay.

A. -- prior to the accident.

Q. Okay. Do you as a bomber group, do you guys communicate with each other inflight on a different discreet frequency or do you guys just I'm following the B17, the one right behind me is following us, and that's all you do? You don't communicate with each other. You just do what they did?

A. Well with each other, we're able to speak to each other as crew members in the aircraft but if we wanted to communicate with other aircraft in our flight, then we would have to key our mic and that's the same frequency that the airboss was on.

Q. Okay.

A. So we didn't have a discreet frequency where we'd talk to one airplane before or behind us without the airboss being able to listen. It's the same frequency, yeah.

Q. Okay. That's -- you answered it better than I stated it.

A. Okay.

Q. So I appreciate that. So you have a formation card so obviously you've flown airshows before?

A. Well this was my first standard airshow.

Q. Okay.

A. But to earn that rating as being a formation pilot there's

different signatories that the FAA has issued where you go through training, ground school, and an oral, and a check ride.

Q. So you hadn't flown in an airshow before, whether in another airplane, another group? Nothing like that?

A Correct, so lots of training with four airplanes in close proximity of each other performing different maneuvers that were evaluated but in a formal airshow with an airboss, this was my first time.

Q. Okay. I just wanted to make sure because you had a formation card.

A. Sure.

Q. I just wanted to make sure you weren't doing that before. All right, so you guys are in flight. You're following each other. Was it all going as scripted? Were you guys catching up to the B17 too much? Falling back? Out of position? Kind of help me understand if it was all going as you anticipated.

A. Sure. So I would use the term both/and.

Q. Okay.

A. So both/and, you're making adjustments constantly. So it wasn't a set power setting, it wasn't a set bank angle. It was very dynamic. So the crew of the B17 was doing a great job for their patterns and their symmetry. Because we have a ground-points that we were interested in maintaining for real estate value and we were making adjustments in the B24 continuously with again, pitch angles, deck angles, bank angles, and power settings,

and air speeds. So the goal is to maintain that distance from their tail to our nose --

Q. Okay.

A. -- and able to accomplish that, it's very fluid.

Q. Okay. Were you guys able to maintain that fine or not so fine?

A. Fine is relative. As aviators we always strive for perfection.

Q. I was trying to avoid the word perfectly, but we'll go with that.

A. No, that's fine. That's our goal and what we strive for so there was probably portions of some of the patterns where we might be slightly closer or slightly aft, but we're always striving for that perfection.

Q. Okay, so you guys had done some maneuvers. We're going to kind of zero in just ahead of the accident, if you will.

A. Okay, sure.

Q. You listened to the radios. Did it sound more -- before the accident, was there anymore -- was there more talking on the radios? Was the cadence about right? Did everybody sound like they knew where they were going? Is there questions?

A. What I remember on our last pass was our distance looked good for the B17 where our sole interest was in and I remember the airboss making a transmission. I don't remember exactly what it was but I think I remember him requesting the fighters to pass the

bomber line, and then his intent was for us to trade lines. And then I remember seeing two fighters come off our left, which I believe were two P51s. We refer to them as Gunfighter and Redtail. And then we -- I remember hearing another transmission from the airboss of something in an uplifting positive note. Like good pass or that looks good. And I assumed what he meant was people on the ground had a good perspective to take pictures is what I was thinking, and so I saw them go past.

And I think I even verbalized to the crew hey, that looks cool as we saw them fly past us on our left and then I observed the third aircraft in a bank coming across, and then in front of our craft and making contact with the B17, and then the rest of the accident that unfolded. So I observed the tail breaking away. It looked like a lot of confetti. There was fire and then the airplane rolled and impacted the ground.

Q. Okay. I apologize for having you relive this eight, nine months later.

A. It's all right.

Q. So if you need a break please feel free. Let's step back just a little bit in that sequence.

A. Okay.

Q. You guys are coming in on the 500 foot line?

A. Yes.

Q. Were you -- from your perspective, was your plane lined up with that 500 foot line?

A. Our airplane was lined up with the B17.
Q. Okay.
A. Meaning our sole focus was on that aircraft in front of us and lining up our aircraft with their longitudinal axis. So since we were zeroed in on that aircraft and our distance, my peripheral wasn't wide enough to make ground observations of where our distances were from the crowd or from the runway.
Q. Okay.
A. Yeah.
Q. Okay, so you don't know? You just know you were in line where you're supposed to be behind this aircraft?
A. Correct. Yeah, I can't speak with certainty where geographically the line was. I just knew that we were exactly behind the B17.
Q. Okay. Now I know you said you were the second of five fighters. Is that right?
A. Five bombers.
Q. Five bombers. Did you know how many fighters were up?
A. I believe three.
Q. Were you briefed that, or -- how did you know that there were three?
A. I don't remember being surprised at the number and so I'm sure it was covered in the briefing and I'm sure I had it on my notes because we all you know, taxi out together and takeoff together. So I never -- I don't remember at any point thinking

oh, there's only three or I was expecting five or two. It was exactly what I expected --

Q. Okay.

A. -- from the briefing, so.

Q. Okay, and I know you said you heard something about the airboss saying you know, something about the fighters pass the bomber line and change lanes? Is that the -- or change lines? He was going to have you guys change?

A. Right, so this is the portion that I was trying to elude to earlier where there was a transmission made but it wasn't in my peripheral because that transmission wasn't directed immediately at us and how we conducted ourselves. Our whole briefing was follow the B17 and so as our intention was to accomplish that when the transmission was made from the airboss I knew that everybody else was going to try to follow through with that.

Q. Okay.

A. So my focus wasn't on the airboss's instruction or request. It was on following through with flying the airplane at that briefed distance.

Q. Okay.

A. So then that’s why I can't remember the exact words or whatever.

Q. Right, okay. But I believe you said -- and again, I don't want to misunderstand what you're saying so that's why I'm asking for clarification. Your understanding was that you guys are on

the 500, the fighters were the 1,000, I guess?
A. Correct.
Q. And your understanding was they were going to pass the bomber line and pull in front and you guys were going to end up getting on the 1,000. Is that -- did I understand what your anticipation was?
A. That was my expectation with the caveat that the B17 understood the instruction and our goal was to follow them.
Q. Okay.
A. So if the B17 had a clear understanding of the instruction and they were going to accomplish that then we were going to follow right behind them.
Q. Was that -- I'm going to call it a maneuver. I don't know what you guys would necessarily call it. Was that briefed? The fighters passing you guys and switching lanes? Was that ever briefed?
A. Not that I recall.
Q. Okay.
A. But I can't say with certainty that it wasn't.
Q. Okay. Nothing that you can recall?
A. Correct.
Q. And that's okay, I get that. I appreciate that. Just trying to understand where it all was coming in. So put yourself in the -- in your plane again. You're coming in to the airport. You're on the 500 footers and you said you saw the two fighters?

A. Yes.
Q. And said oh, that looks cool or good, or whatever you said. Where was that third fighter in relation to the other two? From your perspective. I know you don't know --
A. Yeah, sure. What I observed -- what I remember observing is the first two fighters were closer to each other and they had quite a bit of overtake in velocity, and because they were 500 feet away, that's why I realized that that's -- it's not something you see every day. Two Word War II aircraft flying past you, so that's why I said oh, that looks really neat or that's cool or whatever and there was a time delay before the third aircraft came. And I think I was probably looking for them because I knew there were three aircraft and I saw the first two go. So it may have been a moment of curiosity like where's three? I may have looked over and that's where I saw the third aircraft come over.
Q. Okay. So put me on your shoulder.
A. Okay.
Q. You're seated in that seat.
A. Okay.
Q. You looked over to see that third aircraft. Describe what -- kind of help me understand. Move my eyes with your eyes. Where are you looking over at?
A. Yeah, it would be in the frame of probably milliseconds because as I had described, most of our attention was the distance on our B17 and making those adjustments with power and pitch. I

saw the two first P51s pass milliseconds looking over briefly. Caught the P63 coming over and saw the collision. It was lower than our aircraft because we were descending down toward our briefed altitude. So the collision that I observed, it wasn't level or eye level, it was lower. Yeah, so the P63 came over from our left. I noticed that they were in a left bank and that's where I observed the collision with the B17.

Q. So there's a couple of questions I'll have in here. So let's just go back --

A. Yeah, sure.

Q. -- for just a moment. You said your briefed altitude. What altitude did you guys brief at?

A. The briefed altitude that I recall that was on my notes that unfortunately I don't have was intended -- was my -- it's my understanding it was intended for show center.

Q. Okay.

A. So this was a minimum altitude at which to fly down and make the pass near the guests and the photographers, and then we would increase our deck angle to produce a climb to maneuver at a higher altitude around the area of the airport. So it was understood in the briefing you know, we weren't going to stay abundantly low as we maneuvered over strip malls and parks, and things like that. There would be climbing, turning, and descending, and so we were on that descent when I observed the three fighter aircraft and then the collision.

Q. Okay. So briefed, was that briefed in the big briefing by the airboss? Was that briefed by your little sub bomber group briefing discussion?
A. No, the big brief.
Q. Okay, thank you. I appreciate that.
A. Sure, and then we also have standards in the Commemorative Air Force as well so we always wanted to make sure that that complied.
Q. Okay.
A. Which it did during the briefing and if it would not have, assuredly somebody would have spoken up and say no, this isn't consistent with our manual, and that didn't occur during the briefing.
Q. Okay. Great, thank you for that. So now let's go back to -- we're in flight. You're -- let's call it 12 o'clock is that B17 you guys are in trail of them.
A. Correct.
Q. You see the fighters -- the two fighters coming in. Where are they? Are they -- think of a clock. Are they at your 11 o'clock? Slightly off of 12? 9 o'clock? Kind of help me understand where they are.
A. From my position or theirs?
Q. From your perspective.
A. Well when I noticed the first two fighters pass us, that would have been at my 10, 11, 12. Not 12 because I didn't see

them go in front of us. Remember I was also diverting my attention between distance with the B17 and quickly noticing the aircraft passing us.

Q. Right.

A. So it wasn't a staring event of saying oh, here they are. So if they came to our 12, I didn't see them. It was acknowledging the two aircraft passed us. I made the verbal positive remark of that's cool or that's neat, or whatever I said and then you immediately return to concentrating on the distance with the B17.

Q. So your initial -- and I don't want to put words, so please -- your initial sighting of the first two was would you say around your 10 o'clock position?

A. I think that's fair.

Q. Okay. How about the third one? Keeping that same time zone if you're -- you know, that same clock pattern.

A. I think the same.

Q. Okay.

A. 10 to 11 but geographically it was different because the aircraft are moving and we're in a descending pattern, so I remember picking up though the third airplane which was silver. The 10 and 11 at this time all the way to 12.

Q. Okay. All right, was there anything said right before the collision that you can recall?

A. No. Well I'm sorry --

Q. On the frequency.

A. -- do you mean --
Q. On the frequency, my apologies.
A. Not that I recall.
Q. Okay. How about in your guys' flightdeck? Was there anything that you or your pilot, or your observer, or anybody said right before they collided?
A. Immediately before the collision, I'd say no.
Q. Okay.
A. Probably do in part to it was very quick. There wasn't a lot of time before we -- or before I recognized. I don't know if they saw it or not but I did see the third airplane, the silver airplane, track from 10, 11, 12 and make contact with the aircraft. After the collision occurred, then we did have some discussion inside the airplane.
Q. Okay. So real quick let's go back to right about the time they came through your 12 o'clock, do you remember seeing the 63? Was it from your perspective in a left turn? Rolling out? Right? Kind of help me understand.
A. Left bank.
Q. Left bank, okay. Right before or right as it impacted, from your perspective?
A. Yes.
Q. Okay.
A. With -- I'm not sure about the numerical value but assuredly a velocity overtake, so.

Q. Okay.
A. We weren't co-speed.
Q. Okay.
A. Yeah.
Q. All right, no and that -- I just wanted to understand from your perspective because --
A. Sure.
Q. -- sadly you guys had a bird's eye view.
A. We did.
Q. And I appreciate the details on that. Now the collision has happened. What did you guys do next?
A. So the collision was quick and violent from my perspective. I'm not sure what they saw, but from my perspective I watched the silver airplane connect with the B17. I watched the tail break away and I watched the B17 roll and impact the ground with the ensuing fireball.

Right after that happened Mr. Jim, our flight engineer, it sounds like he saw it also because he verbalized over the coms inside our airplane but not over the frequency, he said oh my God, we just saw all those guys die. I want to throw up. At that point, somewhere in there we heard a knock it off call over the VHS frequency from the airboss and we knew what that meant from our briefing that the airshow was terminated and we knew that that meant we were supposed to maneuver the aircraft out to our respective holding patterns that we had briefed and we had notes,

and we had the maps drawn down on our knee boards.

We were all aware that there were aircraft behind us so we were aware that there were multiple different types of aircraft in close proximity maneuvering. And so at that point, Al and I continued to work together as a team to identify clear airspaces to maneuver the aircraft away from other threats, which would be the other aircraft. So I remember looking over my right shoulder and seeing the B25s in a right bank and so we had turned as well. And once the airplane was turned away from the airport and we were headed for the briefed VFR holding pattern -- the visual holding pattern. We had streets marked down so we could identify it and there was some buildings that we took notes on from Google Earth during the brief, so we knew where we were going and which racetrack to fly.

We had talked about step-by-step what would be next and we made multiple circuits in that briefed holding pattern. I don't remember how many. And then at some point we had heard that they had closed the airport and there was discussion over the frequency with the airboss and all the planes remaining of what the intent was, where the diversion point was going to be, which airport we were going to go land at instead.

As a crew we had already looked at some of the airports in the area where we were concerned with weather, runway distances, and other threats like general aviation traffic or training as it was on a weekend and there'd be other airplanes out there. And we

knew that if we went to an airport that didn't have a tower, it would be -- we would operate slightly differently with our communications and workload.

We had come up with -- our conclusion was the Lancaster Airport which is South of Redbird or RBD, Dallas Executive as it's now known. So that was the decision we had made inside the aircraft while we were holding and then after the transmission was made from the airboss of intent, each of the other aircraft transmitted that they had come up with the same conclusion. We felt I think some urgency to go land safely. That's -- there was a point there where I had made the decision to speak up and say -- and I specifically said let's be last and my thinking was the fighter aircraft are single pilots. They're busy flying and diverting. They know something happened, they only have one set of eyes to look around for other aircraft, so I was very concerned that there wouldn't be another mid-air and I was very concerned that we were going to be able to accomplish our checklists.

I was aware that this would be a good opportunity for a distraction for something like landing with the gear up, or mis-setting our flaps, or something that we trained for and we don't want to have happen today. So I said let's be last and we're also one of the bigger faster airplanes than the other ones. So we maneuvered down to Lancaster. The pattern wasn't busy with other aircraft that did not come from the Wings Over Dallas event and I believe we landed behind the last B25, I think. I think. And we

wanted to make sure to review our checklists multiple times so that we didn't have a human error like the landing gear handle or a flap setting, and everything went well. Nothing got missed. Everything was reviewed. We came up with a shared mental model on our way to the diversion point and we ran through all our checklists in the chocks at the parking zone as we always did during training, so.

Q. Okay. Did you as a crew ever debrief over what you saw?

A. Yes, but it wasn't a formal let's stop what we're doing and come together and talk about this exactly. I mean there was some discussions in the aircraft immediately after and while we were diverting to Lancaster. When we got down there, that was the first time that we were sure who didn't show up. So two of the fighters were silver and when Gunfighter showed up, we knew who was remaining. So we knew who didn't survive, and so we had talked about that and then when we shut the airplane down, we were on our phones and that's when we had learned that Redbird was closed and we were still in an operational state of mind of how do we get the airplane back to Dallas.

And so we had a discussion about that. Like should we consider flying the airplane again today if the airspace reopens, and collectively we made the decision that that's not a good idea. So we're going to -- it's a different shutdown checklist to secure the aircraft and put on covers that the airplane is going to be parked there for some time. So we did have that discussion and

then crew members from the aircraft that also had deferred down there, we all arrived at the same -- there was like a hangar that was open and a lobby, so a lot of us made our way over that direction.

Some of us knew each other from the briefing but casually we didn't know each other really well because we were from different, we call them units or different geographical wings around Texas. So we knew of each other but different people emotionally were affected differently. So eventually we were able to secure a ground transportation to get back to Redbird because the streets were closed. So it was quite a while between shutting down the B24 on the ramp at Lancaster and actually arriving back here at the airport and then seeing people we knew.

Q. Okay. Thank you for running through that with me.

A. Sure.

MR. ETCHER: I know it's -- it can't be easy so my apologies for having you go through that but I do appreciate -- I felt like I was right there with you. I felt like a fly on your shoulder so I appreciate the detail. It does help me a lot. We've been going about 50 minutes or so. You're probably tired of looking at me, so I'm going to pass it off to Sabrina but before I do, do you need a break or anything?

MR. HOOD: No, I'm good.

MR. ETCHER: Everybody else okay?

MR. LASCHE: I'm going to step out because I didn't go the

last time, so I'll be right back.

MR. ETCHER: We can hit pause. Back on the record at 17:07 local. Ms. Sabrina?

DR. WOODS: I'm going to back you all the way up a little bit just because I don't think I quite got a full understanding and appreciation for your Commemorative Air Force history.

BY DR. WOODS:

Q. When did you become a member?

A. Approximately three years ago.

Q. And about how long has your training in the B24 taken?

A. So my history with the Commemorative Air Force started volunteering in the maintenance hangar and then I was invited to go through the training for the co-pilot position on our B29. And so we have a ground school that we host every year where we have different sections divided to the types of aircraft. So everyone is invited to sit through all of the types if they desire. So there's presentations and tests at the end so I began reading about and going through the ground school on the B24 much earlier than I was invited to fly the airplane.

So the first year I flew in the right seat of our B29 and then we have a Stearman biplane that we give rides in also, I was flying that airplane. And then I was invited to come over to the B24, flew that airplane for a while, I don't have the numbers memorized, and then was invited to move to the left seat.

So there was training each year for the right seat program

and then additional training for the transition to the left seat to prepare me for the check ride, the examiner, and then also our unit has an initial operating experience transition where okay, you have the correct certification but now we're going to do real world training where you're flying with a more experienced seasoned captain with you to go through all of the issues that come up like the decision making and judgement.

They know you know the right numbers and the feel but we want the holistic experience. So I would say it was very good training. Very similar to the airlines that I work in.

Q. I know you said that this was your first -- the airshow in which the accident occurred was your first airshow, correct?

A. Correct.

Q. However as a pilot and as a performer, had you ever participated in an airshow as like an observer or an additional set of eyes in the back, or anything like that?

A. I've been attending airshows on the ground since I was very young and I also volunteer at Oshkosh each year, and again that's on the ground. So I've observed similar World War II aircraft flying and on the ground for several decades.

Q. But onboard in flight, have you ever --

A. This was the first one.

Q. Okay, just making sure. So going back to that holistic experience. I mean part of the experience is not just flying the aircraft but obviously learning to fly the aircraft in an airshow

setting. If we really want to talk holistic however, what have you been taught about what to expect from your airshow airboss?
A. So at the CAF we have a process that allows different people to either operate the aircraft, operate the aircraft with paid customers, or even further training to operate it in an airshow.

So to operate in an airshow, we have a rating for that and through that training program it's covered in our ground school and then also, you're required to fly with somebody who's more experienced and seasoned to be with you and mentor you through the airshow airboss briefing and then fly in that event. So the Wings Over Dallas weekend was -- the intent was for me to fly with Al and that was going to help with my training so that I could have that rating and then operate as the pilot in command at future airshows.
Q. And that's a great overview of the program --
A. Okay.
Q. -- but what have you been taught about what to expect from an airboss while performing in a show?
A. I see. Specifically, to arrive with the amount of professionalism that we bring each time that we are around the aircraft and make sure that you have a clear understanding and ask any questions from the briefing that you don't have an understanding of. So I'd say there's not a specific training in how to go through a briefing but there's a professional expectation that you'll be present in the briefing and speak up if

you have any questions.
Q. Okay.
A. But I don't have a specific training of how to go through a briefing if that's what you're asking.
Q. Not exactly. Let me modify the question just a bit. What expectations does Matthew hold for his airboss? What am I supposed to get out of this guy? What do I -- how do I expect that person to behave? How do I expect that person to perform? What information do I expect to get out of that person? Things of that nature.
A. I would say the exact same standard as any briefing I've been through before where it's thorough. There's -- all the highlights are covered. There'd be an expectation for time for people to ask questions. That everything would be able to get answered before we separate. That's my expectation.
Q. What about actually during the performance? So you've covered the briefing. Now you're in the air?
A. So speaking for myself as this was my first airshow flying in, I had the expectation that we would fly what we briefed and we briefed what we flew. And so if there was a change, I didn't know if that was standard or not standard. I would look at it from the same perspective as if you're flying an airliner to an airport and the controller makes a runway change, and then you're going to modify and execute with your training to see if you can or cannot comply with the instruction from the air traffic controller the

same way we would with the airboss. So I have the expectation that if something was new, that we would be given a time to evaluate and know if we could comply with the request.
Q. Same question except let's talk about your fellow performers. As a person out there flying, what is your expectation for how your fellow performers will behave and act around you?
A. I would say in the community there's an expectation that again, we all hold ourselves to the highest level and as aviators we're all seeking perfection. So for somebody to do something off script is considered weird. Everybody has an expectation and it's in our culture that we're going to all be on the same sheet music unless something was really strange.
Q. You talked earlier a little bit about kind of establishing distance goals. Who establishes those distance goals? Is that something that happens in the larger group or is that something that the subgroups do for each other?
A. I definitely had it written down on my notes and I believe that came from the briefing as a whole. That that was laid down from the airboss with the large group of what the longitudinal distance goals were.
Q. And is that intragroup or within the group?
A. So that was whole group.
Q. Okay.
A. So the only thing that was covered in the smaller group that I discussed earlier was the latter portion of the airshow when we

were done doing the -- we call it a tail chase, but when we were going to rejoin in a different formation. So the subgroup was for the later part that we never got to. Everything prior to the accident was mainly covered with the group as a whole.

Q. Right prior to actually taking part in, I guess in the display portion, you said that you were giving a couple customer rides. Does that ever happen at the same time as people are performing for the display portion of the airshow in your experience?

A. There's standards and rules. So we would -- it was intended to have allocated time to do the customer experiences and then we would follow that schedule until okay, customer experiences are done now we're moving in to the actual airshow and a start time, and when we're going to start engines, and when we're going to taxi out. So it was like a different chapter in a book. It wouldn't operate at the same time.

Q. And so in your experience it's never overlapped?

A. Not with our aircraft. So we wouldn't take passengers with us in an airshow performance. That would be totally separate and then we'd move in to okay, now we're in airshow world. That's done. Now we're going to fly this other briefing.

Q. Have you ever experienced other aircraft taking -- I guess catering to those customer experiences during the airshow?

A. I was mainly concentrated with the -- on our crew and our aircraft. I did learn later I think a Stearman was coming back

with one of their customers during the airshow, but I don't know if that's here nor there on what the rules are.
Q. Was that something that was -- that you recall being briefed that customer experiences, these rides, might be taking place during the airshow during that pre-brief?
A. I don't recall. I was so intent on getting as precise as possible, what my job was, and our aircraft. I'm not sure.
Q. Okay. I think my last question for this round is you talk a lot about shared mental model, which I respect. I like that term because it does -- it means this -- everybody's got an understanding of what is happening at the same time. In your experience, not just with Commemorative Air Force, but in your aviation experience what are the things that encourage a shared mental model? What are the things you have to have in place to have a shared mental model?
A. Communication and time to be able to exchange those ideas to make sure that you're commuting what -- you're getting across the point that you want, you're making sure that the person you're communicating with has the time to ask or answer questions, or understands where you're coming from. I can give an example if you'd like?
Q. Absolutely.
A. So there was a lot of briefing between Al and I. Al's a more senior pilot. He's more experienced in this aircraft. This was training event to fly in my first airshow so we were talking about

that day for days ahead up to that point, and we talked before the briefing with the airboss and after to go over our notes to make sure that I heard what I thought I heard and then making sure that Al was in agreement that I understood what the instructions were. We worked together through the first two ride flights and then when we moved into the airshow portion, we again verified our roles of how we were going to work together as a team to satisfy the instruction of the distance behind the B17. That was an additive condition. It required a briefing moment. It required time for both of us to agree that we were on the same sheet of music and that we had that shared mental model so that we could execute what we talked about.

Q. Did you have any similar conversations with for instance the crew of the B17 since those are the people you're following?

A. I do remember visiting with them very briefly. That was maybe a sentence or two after we got up from the large briefing where everybody was involved including the crew members from all the different kinds of airplanes. And when we had a chance to get up from our chairs and separate with just the bomber people, there was a quick maybe two sentence conversation between the B17 where they said yeah, we'll go this way and start right and then come back left. And we're like okay, that sounds good. Like we knew what they meant and so they were making sure that we were -- that we had a shared mental model with which direction they were going to intend to fly from the airboss's instructions.

Q. Okay. Let's say -- and I know this is hard. We're trying to extract a lot --
A. That's okay.
Q. -- of information from your one experience.
A. That's okay.
Q. Let's say there's something that wasn't going right, that you didn't feel comfortable about, that you had concerns with. How do you deal with that? What is your -- what are the tools in your toolbox to deal with I have a concern about this? Now what do you do?
A. I think my response would depend on the application. So if it was on the ground during a taxi event, I would probably react differently than if we were in the air and time was compressed.
Q. So let's back it all the way up to planning.
A. Okay.
Q. Something you've heard just doesn't sit right with you. You're clear. You confirm that this is exactly what I heard but I don't like it. Now what?
A. I would speak up, and I would ask questions, and I would confirm with my peers.
Q. And if it wasn't resolved to your liking?
A. I would press on if it was to my liking. Did I hear you correctly?
Q. If it was not resolved to your liking?
A. I'm glad I asked.

Q. Yeah.
A. If it was not to my liking, I'd continue to ask questions and present what the concerns are but not continue. Yeah, there's definitely an expectation of not continuing unless all questions are answered.
Q. And are you comfortable with that? Because I mean you're new. This is your -- supposed to be your first airshow. I'm presuming you want to progress in flying with Commemorative Air Force?
A. Yes, so what I chose to do that day was listen intently to both briefings and I also felt lucky in the sense that the first day the weather was very poor so we weren't able to fly, but we got a full briefing from the airboss even though it was raining and the ceilings were too low. And I was able to take a lot of notes that day and then I was able to go home and take my time and really study the maps and study the notes that I made. So that way I had an expectation when I came back in the second time to verify that my notes were correct and also before we were done with the briefing on the second day, which is the day we flew on, I was able to confirm with Al what the plan was.

And when he was able to affirm what my expectations were, I felt 100 percent satisfied that we were good to continue. If I -- I wanted to give Al the opportunity to speak and say no Matt, you misheard that. It's actually left not right or whatever the grievance would be.

Q. But in my hypothetical question I'm saying if that hasn't been resolved how comfortable are you being relatively new --
A. Oh, I see. I'm very comfortable with saying we're going to pump the brakes.
Q. Okay.
A. Very comfortable. The aviation as a whole today, it's my experience and especially in the Commemorative Air Force, we're all empowered to stop or speak up, or ask questions, or whatever. There's no extra pressure from any direction to continue in any way shape or form if you have any questions.
Q. Okay, and that's on the ground. So now you are in the air --
A. Okay.
Q. And there is a situation developing that you do not like. It's a little more dynamic. Do you feel empowered to call knock it off if you need to?
A. Yes.
Q. Do you have any concern of repercussions for doing that?
A. No.
Q. Is there established expectations that there would be a conversation after it was said and done? That people would follow your instruction but then there would be conversation?
A. I think so naturally because just from the human element, people are in different geographic locations looking in different directions. So for example if I were to call a knock it off where we were flying, the people in front of us might not understand why

but they're briefed and they would -- I have an expectation that they would comply with the same instruction as the knock it off.

So once we all either divert or return to land, there would absolutely be a debrief of like what went well, what didn't go well, why was the knock it off call made, and then an agreement that that was a good call or not a good call. So that's some of the training we also go through with the formation card program that the FAA sanctions.

Q. Have you had a chance to participate in an airshow since the accident?

A. No.

Q. Do you have future plans or have you -- has the aircraft been selected too? I kind of forgot how that process worked already.

A. Sure. So in our organization, we made an inner decision that we would continue to participate in airshow flying to the benefit of the general public and veteran's organizations and things like that that we value strongly, but we did make a decision to not fly close formation with dissimilar aircraft. So we are as group in our squadron, which is not CAF as a whole but our group that is the caretakers of our aircraft, we have an intent to carry on with an emphasis of clear cut briefings to make sure that we're sure but we don't plan on any additional risk items of close formation in dissimilar aircraft.

So the envisioned application of that just to be clear would be we might go to a new city to share the aircraft and we might

fly at an FAA approved lower altitude past some people who would have the opportunity to appreciate the aircraft and take a picture. And there might be another different type of aircraft going behind us but we won't be in a close proximity. So that was an inner decision we had made.

Q. What made your group come to that decision? What factors did you use to inform that decision?

A. What factors did I make to inform that decision? In our group we respect and appreciate what we do as a non-profit and taking care of these airplanes so immensely, we felt obligated to increase our safety peripheral and that was the application where we said this would have the most immediate effect of avoiding an unwanted outcome later. It was not casual. It wasn't just because. It was like this is important and this is what we're going to do.

Q. I wasn't aware that was something that the individual units could do and make a decision on, so how was that received by big CAF if you will?

A. Sure. So I also serve on our Tour Planning Committee so I help decide which cities we go to and I work with airports and future airbosses, and so as our group is invited to different cities that participate in different things, we have ownership of saying this is what we will do, this is what we will not do. So if we get asked in the future of an airshow to perform in some way or fashion that's contrary to what we had agreed upon we would say

no we're going to do this, not this. Show up, don't show up. And so far we've received no push back in any way shape or form.

Q. What about a Commemorative Air Force produced event such as a future Wings Over Dallas where it's largely all -- well all your assets?

A. There has to be complete agreement with all the participants and all the leadership of the participants. So it's impossible that one instruction would come down of hey, we're going to do this and another group who has responsibility of that aircraft say that's contrary to our agreement but we're going to do it anyway, like that wouldn't happen. That group and in this case our group, we would say no we're only going to be doing this and everybody would be in agreement. So everybody has to be on the same sheet of music. There's never you know, contrary objectives.

Q. And is that for both the B24 and the B29 or just the B24?

A. Yes, the B24 and the B29. So we're the caretakers of four aircraft and that was the decision made in our group for all four of the aircraft that we take care of.

Q. Okay, understood. Got it, thank you. I'm glad you clarified that.

A. Yeah, thank you.

Q. Commemorative Air Force has a guidance called -- essentially called -- I'm calling it the 60-1. Are you familiar?

A. Familiar. Can't quote it off the top of my head.

Q. That's fine.

A. But I do keep at the ready on my pdf.
Q. Okay, and there had been some recent changes to that document. Are you familiar with those changes?
A. We usually highlight big changes each year at our ground school, and so our ground school was in January. So if there have been further updates that would have came out I believe, in like an email or a bulletin, and so I'd have to review those to get the specifics. But we all have access to them.
Q. Okay.
A. So there's never an opportunity for somebody to fly the aircraft or operate them without you know, that manual and the latest revision available to fall in line.
Q. But right now you're not aware of any of the more substantive changes that have taken place in that document since January?
A. Yeah, I'd have to go back and look. So one of the things we do is we always update the latest version and then there's a way to go through and see if there were changes so that way you don't have to memorize them. So I'm not trying to be evasive. I'm saying usually what I personally do is I always update the latest and then go review if there any changes before we go operate at an airshow in this example.
Q. Okay, well that negates further questions then. That's -- I think that's it for me. Thank you so much.
MR. ETCHER: Thanks. Bob?
MR. HEATH: No, I don't have anything. Thank you.

MR. ETCHER: Okay. You made it through round one. Round two is usually quicker but are you doing okay to start round two or --

MR. HOOD: Yes.

MR. ETCHER: -- do you need a break?

MR. HOOD: No.

MR. ETCHER: Okay. You have answered a ton of my questions so I appreciate it. I actually have a very short list, which Sabrina will probably tell you that's a rarity. But I do appreciate it. These might be a little hodge-podge questions. there's no flow to them as you were answering or whatever.

MR. HOOD: Okay.

BY MR. ETCHER:

Q. Let's go back to just what you were talking to Sabrina about the changes and everything. If I say the term dog bone, does that mean anything to you?

A. Yes.

Q. What does that mean?

A. That was desired flight path that we had briefed and flew on that day where the airplane would fly in a straight line for some extended amount of time, climb, make a turn in one direction, and then I would call it a button hook or a teardrop around to reverse direction to return 180 degrees off from the initial.

Q. Okay. Is that something you guys practiced a lot?

A. Not exactly but for a lot of us who have flying backgrounds and other experiences and like I said formation card holding,

things like that, you'd be pretty familiar. That wouldn't be considered weird or out of the way. It's pretty normal.

Q. Okay. Do you know off the top of your head, can you guys do those anymore? Could you do those? I mean is that -- anything prohibited by the CAF?

A. If it were, it would come out in a change in our manual which I would view after a download and review of that document before an airshow.

Q. Okay.

A. Yeah, I haven't flown an airshow since then and so that leads to why if there is a change, I'm not aware of one.

Q. Okay.

A. It would be reviewed if there was an airshow that I was going to participate in.

Q. Okay, perfect. I know you said with Sabrina that your group said -- and I tried to write it down as you were talking --

A. Sure.

Q. -- but I think I missed it. You guys won't do close proximity with the dissimilar aircraft?

A. Correct.

Q. I know what I consider a dissimilar aircraft. What do you consider a dissimilar aircraft?

A. Well I think any two different aircraft that don't have similar weights, speeds, and power settings.

Q. So I'm a simple guy, so I like thinking simple terms here.

A. Sure.
Q. Would a B17 and B24 or nine, either one, would they be dissimilar at all or would they be what you would classify as similar?
A. I would call that similar but because they're not identical in model, I think moving forward we're all in agreement with our unit that it would require crystal clear briefing and speeds and power settings to make sure that everybody was on the same sheet of music. But I would consider those aircraft similar. I would not consider a P51 similar to a B24.
Q. Okay. So when your unit discussed that, did you guys discuss -- you're on the same sheet of music if you will, the dissimilar aircraft or what you would consider classifying as a similar aircraft? Was that prescriptive? Was that stated point blank in your unit?
A. I received that verbally through leadership later as we thought back to Wings Over Dallas and we said moving forward these are our standards and expectations, and when my leader said dissimilar aircraft, there wasn't any further discussion or description of what the definitive answer of those two would be. It was just kind of a basic --
Q. Okay.
A. -- understanding of what dissimilar means.
Q. I just wasn't sure how detailed you guys got --
A. Yeah.

Q. -- to define that.
A. I think your example is correct. Two four engine bombers would be similar. A fighter and a bomber are not.
Q. Okay. I appreciate that. That was my mental model but yeah, I don't fly airshows so I appreciate your input there. How about the term close proximity? To me anything within three miles -- I'm used to -- I follow the rules so anything within three miles, that's close. But airshows, that's not close. So what do you call close proximity?
A. Our expectation is moving forward this would absolutely be gone through in a briefing on distances. My personal opinion of what close proximity might mean would be closer to half a mile to a mile.
Q. Okay. So if you being in a bomber was flying down the 500 foot line and another airplane was flying down the 1,000 foot line, is that close proximity then?
A. That would be -- I would say yes.
Q. Okay.
A. Because that -- my definition, that's 500 feet. That would be a close proximity. If it was further away, I would define it differently.
Q. Did your unit define that as well or just kind of verbalize its close proximity?
A. After the fact.
Q. Okay.

A. But not prior to Wings Over Dallas.
Q. Okay, so after the fact what did they define close proximity as? Or did they?
A. They did not. I think the way that the conversation basically was intended or the spirit of the rule was we want to reevaluate our standards and we want to increase those to a more conservative approach. And so immediately, let's not fly in close proximity of dissimilar aircraft moving forward with the expectation of as we are invited to different airshows if we decide to participate, those specifics will be defined at that time.
Q. Okay.
A. So it wasn't over the phone like hey, any more -- we're not doing 800 feet. That wasn't described.
Q. Okay.
A. It was like hey, if we get invited to another one, we're going to go to the airboss and say here's what we will do and here's what we won't do, and then hash that out before the briefing.
Q. Okay, great. Thank you. You were talking with Sabrina about making a knock it off call and you know, anybody can make those. I get that. It came out clear so I thank you but then you also said something that made me question there might be discussion afterwards and if that's a good call or not a good call. Have you ever heard anybody say that's not a good call? Why did you do

that?
A. Not in the CAF.
Q. Okay. Have you heard it outside of the CAF in this airshow world?
A. In the airshow world, no. In my formation training, yes.
Q Okay.
A. So there was an event -- I can summarize briefly but there was an event I was flying in. It was for a similar aircraft and we were going through different formations and maneuvers that we had prebriefed, and there was a point at which an airplane had gone belly up to another airplane so they could see them with four aircraft very close and a knock it off call was made where people would separate and increase their distance to mitigate the risk. The people who were flying who didn't see the aircraft go belly up weren't sure why the knock it off call was made until we had landed and gone through that debrief experience which is pretty standard throughout aviation on sitting down and saying what did we do right, what did we do wrong, what could we do different. And then the people who didn't understand the knock it off call were informed why it was made and then were in agreement. That's pretty standard with everyone I've ever flown with.
Q. Okay.
A. So there's never any like pressure of you know, high school antics or something of hey, that shouldn't have occurred or something that might happen on the football field. Like we don't

do that in aviation.
Q. Okay.
A. Yeah.
Q. And that's what I was getting at. I just wanted to make --
A. Sure.
Q. -- sure that I had that understood.
A. Sure.
Q. Pilots love to talk. Granted, pilots like to complain but pilots like to talk and I'm sure your unit gets together. I'm sure you guys talk some, a lot maybe, I don't know. Has there ever been any discussion pre-Wings Over Dallas, post, whatever, about airshows that people were like man, that airboss or that airshow wasn't done well? Has there ever been any of that discussion that you're aware of?
A. Not that I'm aware of prior to Wings Over Dallas but I'd like to add the caveat that again, I've been in this organization for three years and I'm one of the newer pilots with the airshow. But in my three years' experience, I've never heard anything like that.
Q. And you started that with the before Wings Over Dallas. Has there since Wings Over Dallas?
A. Since Wings Over Dallas, lots of people have tried to look back, or guess, or try to point out maybe some things that went wrong that led to the conclusion of that day.
Q. Okay.

A. They're all opinions.
Q. No, I get that but pilots talk so I just was kind of curious if you'd heard anything?
A. What would you like to know?
Q. Yeha right. No, you've answered that enough so thank you. I now you said Friday the day before the accident you attended the briefing, and in my head I have you taking copious notes.
A. Correct.
Q. But then the weather delayed you, the was cancelled?
A. Correct.
Q. However, had the weather not been a factor, crystal clear skies, would you have felt thoroughly briefed enough to go fly in an airshow with that briefing?
A. Yes, with the caveat that I would have wanted to have made sure that I spoke with Al and again, take the time to say this is what I heard, this is what I wrote down, are you in agreement, are we going to do this? Because we were both able to hear the same briefing essentially the very next day, the flight patterns, it was more of an assurance that this is correct.
Q. Okay. All right, let's talk about your training here. I told you my questions aren't flowing. They're kind of all over --
A. That's okay.
Q. -- because I was writing them down.
MR. LASCHE: I'm just going to grab some water.
BY MR. ETCHER:

Q. Sure. How well do you feel your training was to have you ready to fly in airshows? Do you think it was -- you were confident with your -- the training you had to be able to go out and fly in airshows? Was it okay, I kind of get it but you know, hands on is a good thing?

A. I showed up very comfortable and confident. I thought that the presentation that was created during the ground school that I had attended helped me a lot. They had referenced a lot of the advisory circulars, and their maps, and expectations of how airspaces work and airboss instructions work. And I was glad that in our group with the Commemorative Air Force they have that other rating that requires you to go through the experience with somebody more experienced so that way you have the opportunity to ask questions as they come up.

I would have not felt comfortable showing up to my first airshow if I was flying by myself and the Commemorative Air Force did not have that requirement of flying with somebody more experienced because you don't know what you don't know. So I'm glad that they have that mentorship requirement.

Q. Okay.

A. So I was comfortable to be in that role of yes, I'm flying but I'm also there to learn, and to ask questions, and take notes.

Q. Okay. Is there anything in the training that could have been done better? I realize you have a very experienced, you know aviation career and you've seen all sorts of different trainings.

You yourself even do training but is there anything you saw that you're like hm, maybe they could have done that better?
A. My understanding coming in is that each airshow can be different and there could be different airbosses and there could be different briefings. The one standard that we bring into the room is the guy in the mirror. So I need to show up with -- I need to make sure that I have a clear understanding. I need to make sure that I have an opportunity to ask questions and I need to make sure those get answered before the aircraft. So whether there's an airshow in Dallas or anywhere else in the country, as long as that standard is met through different briefings and different air spaces, and different airbosses, it should have a consistent result.
Q. Okay. Okay. During your training did you -- I know this was your first airshow that you got to fly in. Had you practiced airshow maneuvers in the bombers before as part of your training?
A. I'd say yes and no. So no, we never practiced a specific airshow routine which we'd be flying at that lower level down a runway performing a dog bone and coming back, but the maneuver in itself was essentially maneuvers that we go through training and fly regularly. It's a climb. It's a descent. It's a power reduction. It's a turn one direction. It's a turn another direction. The training that we go through in the Commemorative Air Force is actually a lot more difficult where we're doing simulated engine outs. In the four engine airplane we do a

simulation where we have power loss of two engines on one wing which is an incredibly strenuous physicality, and working with a crew, and going through a checklist, and simulated fire drills, and hydraulic problems and all of that. That's a lot more mentally intense that we practice and train for and are held to a standard. So to answer your question in a nutshell no, we never practiced the dog bone but it wasn't thought of as weird. That's almost an elementary accomplishment.

Q. Okay. Did you ever practice flying in trail?

A. I have with my formation card.

Q. Okay.

A. And much closer. This was like an extend portion. A quarter mile is pretty far away.

Q. Okay.

A. Some of the training that I've gone through outside of the CAF were within three feet.

Q. Okay. Okay. If you were in an airshow, you're coming in on the 500 foot line and you see what appears to be a plane that's going to be joining the 1,000 foot line. If they're getting a little too close like overshooting or whatever, what would you do? Kind of help me understand what options do you have flying? Do you climb? Do you turn? Do you descend? Hold a straight line? I'm just -- help me understand what options you would have.

A. If I'm understanding your question correctly, you're asking me if I'm flying as briefed and somebody else is intruding into

our area?
Q. Mm-hm.
A. How would we maneuver the aircraft? Did I hear you correctly?
Q. What would you do to maneuver?
A. Yeah, so step one would be observe, communicate if there's time, and then lastly obviously move the aircraft toward clear airspace to avoid the conflict. If you have time to communicate that with your fellow crew or at an airshow with the airboss then that would be -- if it's possible, that would be great but even if you couldn't talk to anybody at all a simple I have the aircraft in a climbing right turn toward clear skies is a correct answer followed by a knock it off call because now we're flying off script.
Q. Okay.
A. That's good too.
Q. And that -- just for the record, I see what your hands are doing but just for the record the climbing right turn is away from the intruding aircraft, correct?
A. Yes.
Q. Okay. I saw your hands it's just I didn't want to get --
A. Sure.
Q. Okay. Do you feel empowered sitting in the right seat to say I've got the controls and take them?
A. 100 percent.

Q. Okay.
A. Yeah, we do that routinely when we operate the aircraft. We call it going on tour when we move the aircraft around the country to go to different cities. We routinely hand over controls. Yeah, and we do it in training and all of that. It's pretty normal.
Q. Handing over controls is normal, I get that but do you feel empowered? The left seater's flying. You're in the right seat. You see something. Do you feel like you have the authority to say my plane, I have the controls, whatever that phrase would be --
A. Yeah.
Q. -- and to do what you need to do?
A. We absolutely do --
Q. Okay.
A. -- here at the Commemorative Air Force, one of the things that's in our manuals that we've briefed is takeoffs that might be rejected or aborted and either pilot sitting there has the authority to accomplish what could be a high threat, which would be fast moving airplane that's worth a lot of money powering down and trying to get the airplane stopped before you're in the grass. Both pilots have that authority that we brief, train, and have a cultural understanding of. Specifically if you're asking about that day, because Al and I specifically talked about working as a team and sharing the controls and the engines, it was even more so that that would be accepted and a good procedure.

Q. Okay. You kind of made that sound like you and Al, I want to say went above and beyond, but you almost make it sound like it's a little abnormal the way you guys work. Is that an accurate statement or is that just -- you were just citing that day?
A. No, that day was above and beyond because we had the additive condition of being at an airshow versus other times where Al and I have flown together around the country and maybe are moving the aircraft from one city to another, or you're doing a right flight. This day was different and so we wanted to focus in or heighten our awareness of good communication procedures and working together to make sure if something like that were to happen that we would have a good outcome.
Q. Okay.
A. That there wouldn't be a time of hey, I don't know if this is okay or hey, what do you think but know that either of us could execute in an expeditious manner for safety.
Q. Okay. The last question and then I'll hand it off. If you're in an airshow, you are in the left seat flying. I know this may be a year or two away. I don't know. But you're in the left seat flying and you hear the airboss say bombers 1,000 foot line. When do you feel like you should be on that 1,000 foot line?
A. I would transmit and request a clarification while I would communicate with my crew of who's looking where so that way I could expand my peripheral and observe to make sure the area was

clear before I thought about complying with an ambiguous instruction.

Q. Okay. Let's just say you're the lead pilot of a group of five in trail. It's just you bombers up there, nobody else and normally you're doing the 500 foot line but the airboss says hey, I want you guys on the 1,000 foot line. When would you as the lead want to be on that 1,000 foot line? Is there any points? Like I want to be on that 1,000 foot line by the time I cross the runway, halfway down the runway, airport property? Just kind of help me understand when you would try and move from the 500 and line up with the 1,000. What your expectation would be of I want to be on that 1,000 foot by this point?

A. If I was number one leading five aircraft and I'm descending into the airport property on the 500 foot line and I hear move to 1,000 feet, my expectation would be that he's -- the airboss is expecting us to begin the turn around airport property to arrive at the 1,000 foot point somewhere midfield-ish.

Q. Okay.

A. But I would transmit to clarify with simply, when.

Q. Okay.

A. And then if he said by the stands or on the next pass or something, or add another communication nugget to help my understanding of what his expectation is. The fact that in your scenario you said there is no one else, to me that's lower threat. But if there are other aircraft operating, there's no question

that you'd ask again.
Q. Okay.
A. Or I would.
Q. Is that something -- is the airboss's expectations ever briefed that you've heard in any of your airshow briefings you've attended?
A. Restate please?
Q. Has the airboss during the briefing, the morning briefing, has he ever said hey, if I tell you guys to be on a specific line, I want you there by this point? Was that expectation ever briefed?
A. It may have been and if it was, it was on my notes and as memory on like a five out of ten scale for that point, it probably would have been show center.
Q. Okay.
A. That's a five out of ten memory. That's like C- world.
Q. Hey, that's better than I ever got so you're okay. No, I'm just trying to understand kind of if there's expectations that are briefed and what yours are and sometimes they're usually different. Not always but mine might be different than yours. So I just want to understand.
A. Sure.
Q. Okay. I told you that was the last question. Again, thank you so much for all your education. Let me make sure Sabrina doesn't have more.

DR. WOODS: No, I'm good. Thank you very much.

MR. ETCHER: You're happy?

DR. WOODS: I am.

MR. ETCHER: All right. Bob?

MR. HEATH: No, I don't have anything.

MR. ETCHER: Okay. Man, you guys didn't give me a chance to drink water. So I always like to end on a few questions.

MR. HOOD: Okay.

BY MR. ETCHER:

Q. One, you knew you were coming in here today to talk to us, to educate us and you probably were thinking okay, they're going to talk to me about this or ask me about this and this. We've asked a lot of questions but I'm always afraid that I'm not going to ask the one question you thought we were going to ask. Is there something you can think of that -- man, they should have asked about this? If they would have, his lightbulb may have come in his brain to understand something?

A. Not really. I mean the rest of it is speculation.

Q. Okay.

A. I mean at the end of the day everybody wants to know why and so I'm thankful that you guys are professionally trying to figure that out.

Q. Well at the end of the day I want to know why so we're all in the same boat. Okay. The last question I have. If you were king for the day -- I know it's a big role, right? But if you were

king for the day is there any kinds of changes you can see within the airspace, whether it's airshows or just flying as you normally do that needs to be -- that changes need to be looked at and done?
A. I'm not sure how to answer because I've been through one airshow and if I was through multiple, then I'd have wider optics on what's considered normal and what's not normal. This was my first and only. I can also think of some expectations for briefings in the future of maybe points that are required to be made versus casually discussed, and that way it ensures that everybody does have a clear understanding and it's not required to have a point where you're asking questions, if that makes sense?
Q. It does. I always -- I'm from Missouri so it's the show me state, so I have to have visual pictures.
A. Sure.
Q. Can you give me an example of what you're talking about?
A. Yeah, I can try. So I fly for Southwest Airlines. In Southwest Airlines, it's a requirement before you push back from the gate that you will discuss specific things. It's on a checklist. You will do it. It's not an option or an opinion. Before we brief an approach on whether there's weather or not weather, there's required things that you have to go through. And those are published through data so that the crew operationally doesn't have an expectation that the other person knows if they're sharing that same mental model or not, or somebody forgot, or they thought it was covered, or we had flown together a bunch and we

already know the game. So in the future it would be great if there were required bullet points for airshow briefings where they say this is going to be required. This is the distance, this is the altitude, this is the flight path, at this time we're going to turn here, at this time it's there, and that way it leaves no doubt for everybody even though a lot of people in that room do understand what cultural norms are and they have a lot of experience of flying those aircraft and with each other, I think it's still good to hit the bullets.

Q. Excellent. No, I appreciate the example too because that -- now I see that. So I appreciate it.

MR. ETCHER: If nobody else has anything else, we will call this over at 18:00 local time. Again, thank you so much for coming in and educating me.

MR. HOOD: Yeah.

(Whereupon, at 6:00 p.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 22, 2022 Interview of Matt Hood
ACCIDENT NO.:	CEN23MA034
PLACE:	Dallas, Texas
DATE:	August 10, 2023

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.



Keeley Rupert
Transcriber

On-Scene Interview: Al Benzing

Representative: None
Date/Time: November 13, 2022 / 1315L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview Al Benzing stated the following:

He was a volunteer pilot with the CAF and has flown several different aircraft. That day he was assigned to fly in the left seat on the B-24, Diamond Lil during the airshow.
Took off following the B17, and made a right turn followed by a right pass and then several passes.

They attended the brief and were to be #2 in the flight in Diamond Lil (B-24) behind Raiders (B-17) ahead of 2 B-25s, followed by the SB2C and Fifi (B-29) and then met with the Air Boss and concentrated on the finale. The B-29 was having trouble getting airborne.

They had flown at least 2 but probably 3 passes prior to the incident run. On the last run, they were making a turn and rolling out on 35, no… 31. He was following the B-17 on a normal pass concentrating on being in the proper position, not to close but not too far back it, varied to around ½ mile. He estimated the altitude to be about 500 feet. He was in the left seat as the pilot flying the B-24. He could see fighters approaching from the left. He didn't see the impact and when the B17 blew up he was confused as to what happened. He saw the debris but didn't have to maneuver around it.

He stated that they were flying down the 1000-foot line on the accident run, just like they had the previous run. They were definitely offset left from the runway. There is a little stub on the outer edge, and he pointed out on a chart where they were and mentioned that they were flying over the pyro pit, which is on the1000-foot line.

His perception was that the geometry was working. The fighters were coming in and thought they were tiny and in the distance, coming down and in the turn and then bang. He estimated they were doing about 160 kts.

At that point they cut off their pass and followed briefed procedure after the Air Boss made the knock it off call. They eventually diverted to Lancaster.

Interview concluded at 1335L

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
FATAL COLLISION AT WINGS OVER	*	
DALLAS AIRSHOW AT THE DALLAS	*	Accident No.: CEN23MA034
EXECUTIVE AIRPORT IN DALLAS, TEXAS	*	
ON NOVEMBER 12, 2022	*	
	*	

Interview of: AL BENZING, Pilot
Commemorative Air Force

Dallas, Texas

Thursday,
August 10, 2023

APPEARANCES:

DR. SABRINA WOODS, Investigator
National Transportation Safety Board

SHAWN ETCHER, Investigator
National Transportation Safety Board

JIM LASCHE, Chief Aviation Officer
Representative

BOB HEATH, Director
Commemorative Air Force

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I N T E R V I E W

(10:21 a.m.)

DR. WOODS: All right. Good morning. It's August 10th, 2023. The time is 10:21 Central Time. My name is Dr. Sabrina Woods. I'm a human performance investigator with the National Transportation Safety Board. I'm here investigating the November 12th, 2022 accident that occurred during an air show called Wings Over Dallas between a B-17 and a P-63. The board has been congressionally charged with determining probable cause of accident and significant incidents and we're here investigating to fulfill that charge. With me is Shawn.

MR. ETCHER: Good morning. I'm Shawn Etcher. I'm an operational factors investigator with the NTSB. Thank you again for coming in to educate me. I appreciate it.

MR. BENZING: Hi.

DR. WOODS: And then working with us is a party, is a group member, Bob. Bob, would you introduce yourself please?

MR. HEATH: I'm Bob Heath, director of operations for Commemorative Air Force.

DR. WOODS: And so, I'm going to have you talk about your title and a little bit of your background in a minute. But before we get into that, just please know that this is kind of routine for Shawn and I. We do this all the time. We do this for a living. But we recognize that this is not routine for you and that --

MR. BENZING: Right.

DR. WOODS: -- we pulled you out to help us with this investigation. And we again greatly appreciate that. With that comes a few ground rules. Just if you don't know the answer to something we're asking you, I don’t know is a perfectly acceptable answer. Don't feel like you have to make up something or --

MR. BENZING: Sure.

DR. WOODS: -- or I have to dig deep and figure out what they're, if you don't know, just let us know. We'll move on. Please ask for clarification if there's anything that we ask you that you don't understand. We're going to do likewise. If there's something that you say that we don't understand, we'll ask, you know, can you please clarify or can you please elaborate? If you need a break at any time, please do not hesitate to ask and we'll do so. We'll go off record. We'll make sure that happens.

MR. BENZING: Sure.

DR. WOODS: And I'll do my best to check in with you also to make sure that you're still doing okay. This interview is being recorded. That's to ensure that what you have to say is documented perfectly. The recording will be sent to a professional transcriber. It is the transcription that goes on to the docket. Do you have any questions about that?

MR. BENZING: No questions.

DR. WOODS: Okay. We also afford each person that we interview a representative to support them through the process.

That could be any representative of your choosing.

INTERVIEW OF AL BENZING

BY DR. WOODS:

Q. Do you have a representative with you today?

A. Yes. Jim Lasche.

Q. Okay. And --

A. Chief aviation officer.

Q. Okay. Excellent. And with that, for the record, if you would, please state your full name and spell your last.

A. Allan (ph.) Benzing. It's B-e-n-z-i-n-g.

Q. Okay. And what, what's your go by? What would you like us to call you?

A. Al.

Q. Okay. All right. Thank you, Al, for that. So, with that, we'll get into a little bit about you, your history, your background. Can you give us a high level overview of, you know, little Al wondering out there and wants to do this aviation gig? Start from there and how did you get to this point?

A. I started flying 50 years ago or so, a little more than that in the Philippines in a flying club. And I progressed up through various ratings as a civilian once I separated from the Air Force. I worked as a flight instructor for three years while I had another career, a computer career and then began my airline flying, flying a Navajo for a little outfit. Did that for a year and a half or so. Then I flew Twin Otters for Metro Airlines

which was at times American Eagle. Flew that for five years and got hired by Northwest Orient Airlines. And I flew there for 20 some years, various Boeings and Airbus. And with a merger with Delta, I was with Delta as a 767, 757 pilot and I retired in 2011 from there, from Delta. Then I got involved with Commemorative Air Force and toured primarily with the B-24 and the B-29 for ten, 11 years and as well as a T-34 and what we call Ike's bird which is an Aero Commander 560A.

I'm no longer touring with the bombers. I'd already planned to end that at the end of last year. So, I'm still just flying a little bit of T-34 and the Aero Commander and I still teach. I do simulator training for the Airbus as a contractor. So, that's kind of my flying part.

Q. Yes. There's a little bit there. That's, that's a lot. I can only imagine. Can you give me a ballpark of your hours?

A. Twenty-two thousand and six hundred, something like that. Not particularly high time for an airline guy but --

Q. And what current FAA certificates and ratings do you maintain?

A. I have the ATP. I have a CFII. So, it's multi engine instructor and instrument instructor. I have the AGI or advanced ground instructor certificate. I have a turbo jet flight engineer ticket from many years ago but I wouldn't say that's active.

Q. You mentioned that you were stepping away from the bomber side. When was the last time you flew a bomber for Commemorative

Air Force?

A. It was actually the day of the accident. Now, I had planned to fly the next day and that was going to be the end. So, you know, although the accident was a tragic ending for me and for everybody that was involved, I had already planned to be done because it's not just flying. It's touring and it's being involved 24/7 in that. And I was the executive officer of the squadron at that point and my term was just about to run out. So, I was going to wind down at the end of the year and I did. So, I'm now just active in smaller ones.

Q. Do you fly those small planes in air shows or --

A. Well, a little bit. Primarily, I haven't flown in air shows since, although I'm scheduled to fly the Aero Commander in one at the end of September, a small show down at Corsicana. I fly, we go to some what we call barn stormer weekends, local area, you know, places around within 50 miles or something of here and have, do ride flights. So, I've done a number of those, four, five of those and scheduled to do one September 2nd, excuse me, with the Aero Commander. The T-34, I'm an instructor on both those airplanes. T-34, I just haven't really had the time. And so, I just flew it the other day for currency but I haven't flown it very much this year.

Q. Are there any other aircraft you fly outside of Commemorative Air Force?

A. Not in the last few years.

Q. And then are there any other air shows you participate in outside of Commemorative Air Force --

A. No.

Q. -- aircraft?

A. No.

Q. Okay. So, again, Shawn and I are kind of new to this side and you're the first essentially specific performer that we've talked to. Can you give us an overview of how do you get picked? How do you know you are going to perform in an air show that's coming up?

A. Well, for example, on the bombers, you know, we are scheduling. Your ops officer is trying to fill the slots. Right. So, he's got tour stops. He's got air shows and so on. And when he's looking at the schedule, who is qualified? You need to be a, quote, senior pilot, meaning air show qualified. Doesn't mean you're old. It means that you are qualified to fly in an air show. And I got my senior pilot rating quite a few years ago. And so, when it comes time for a show, hey, Al, are you available or such. And so, I could have been on the 29 or the 24 or something else. Last year, I flew, the year before, I flew just the T-34. But that was, to the best of my recollection, there wasn't any grand scheme. It was, you know, you available? You want to fly Wings Over Dallas? Sure. Twenty-four is available. Okay. So, that's basically it. I was qualified to do it. And the copilot I had was a new pilot in command and this would be an

opportunity for him to see it with someone who'd done it before.
Q. And about how far in advance does this happen? Is this the ops person --
A. I don't remember. I think this one was probably a month or two in advance --
Q. Okay. Was that typical?
A. -- to schedule. I'm not sure what you call typical because they're all volunteers. People have flight schedules and so on. Since I was retired, I generally tried to figure out what am I going to fly, kind of press that issue, you know. I don't want to know, you know, what I'm doing tomorrow today. I want to know ahead of time. So, I usually press that and it's not a problem, you know. So, I usually would know in advance.
Q. Okay. So, this two months in advance, you find out you're --
A. Yes.
Q. Just hypotheticals. You find out you're the guy.
A. Right.
Q. What do you do to prepare from that point?
A. Well, you, you kind of reflect back on what you've done on previous shows. For example, if you're in a bomber, you know about what the expectation is going to be. So, we've done this show before. I've done other shows. And typically, in the bombers, you're making passes. Okay. You're going to, and you don't know for sure what they have in mind until you sit down and talk perhaps with the others or the Air Boss. But you have a

pretty good idea. You're going to make some passes maybe in trail with somebody, maybe you're solo. And so, it isn't that I have a big routine to figure out. I know how to do a photo pass. I know how to make a dog bone. Okay. And when it comes time for the actual put together the show, you know, or the Air Boss is talking to us, there's no big revelation there about I'm going to have to figure out how to do this. Okay. In other words, the act isn't complicated. It's just being comfortable flying your airplane.

Q. Have you ever had to prepare for more than one show at a time?

A. No. Not in any, we only do a few a year. We do a lot of tour stops where we go and we show the airplane and do ride flights. We don't do very many, maybe four or five a year, actual shows. You know, I'm talking the bombers there.

Q. And just to confirm. For this past Wings Over Dallas, what were you flying and what was your position?

A. I was the pilot in command on the B-24 Liberator Diamond Lil. So, left seat, captain if you will, pilot in command.

Q. And in the bomber formation, what were you?

A. I was second. I was following right behind the B-17.

Q. So, you, we talked a little bit about what you do to prepare, working up to I guess shortly before. How far in advance are you made aware of this is exactly what we plan on doing?

A. Well, you have the pilot briefing each day. So, if you have, I can't remember now. Did we have a briefing the day before as

well? Yes.

MR. LASCHE: We did. It was a weather day but we had it.

MR. BENZING: So, so, then you've got a pretty good, in fact, from that, I got together with Len Root was the captain or PIC on the B-17. And when we had an idea of more specifically what was going to be the lineup, you know, we could have been first or they could have been first or, you know, it's, but once you kind of figure out, okay, this is the way they want to structure this, then I got together with Len and said let's make our plan which frequently you do. And then when the Air Boss says, you know, what do you guys have in mind in particular for the bombers, then we have sorted it out. You know, we've been through it. You know, for example, who do we think works best as lead? Okay.

BY DR. WOODS:

Q. Who do you mean by you guys?

A. The bomber group. If we're in a bomber group, the bomber group is going to talk. Okay. So, we have a little subset here where we're talking about what do we think will work well given the mix of aircraft, experience levels and so on. And Len was a very experienced guy and had flown that a lot. And so, we quickly came, and you look at speeds and performance and so forth of the airplanes as well. And so, we decided the 17 would be lead. We'd follow and we had the B-25s behind us and the SB2C (ph.). So, that was good, you know. It was a good performance, a good mix. And that we would go around and fly our passes and so forth in a

sequence.

Q. How far in advance do you know who you're going to be flying with as fellow performers?

A. It's really that day because who's really going to show up? It doesn't matter on paper who's supposed to be there. It matters who's there. Okay.

Q. So, again, walk me through the preparation the day of. So, it's first thing in the morning. If you're a coffee drinker, you've got your steaming cup of coffee.

A. Yes.

Q. Then what happens?

A. Well, and you're, you're all in an Air Boss meeting and a pilot meeting. And he goes through lots of different things, weather and safety and so on and what the overall structure is going to be. There is a list of who the performers are essentially in a sequence.

Okay. And so, you're watching for that. You're seeing a PowerPoint that has the map up here. Here's where the passes are. Here's where the lines are, the crowd lines. Here's where the entry points and the exit points and the minimum altitudes. All those things are laid out. And, you know, it's pretty similar in any of these Air Boss briefings. That's your expectation and that's what you're going through.

And then as you get in, he gets into describing the various acts. They may be an act that is wholly formed already, such as a

Tora group. If he says, okay, the Tora group is going to be here, he doesn't need to be telling the Tora group who's doing what where. They have their act. Okay.

And in a general sense, it's that way with the bomber group. You know that you're not going to be out there doing aerobatics. That's not what we do, you know. That we're going to be making some kinds of passes. Okay. So, when that's described, then you could get together in a huddle and say, okay, who's going to be first, you know, and so on. Well, we had the advantage of doing that the day before.

So, again, it wasn't any, you know, are there any changes here? Let's make sure the Air Boss is in the loop on what we've talked about so everybody is in sync. All right. And, you know, that's pretty much what happens in a very general sense in the Air Boss meeting from my perspective.

Q. So, Air Boss meeting is over. Then what?

A. You know, depends on the timing. If, we might have a ride flight prior to the air show. I think we did but I'm not, I don't remember that for sure. And then when the time comes, you are, everything is based off of timing. You've got a particular slot and you're also watching the act that's two acts in front of you. When the two acts in front of you is there, you're in your airplane, buckled in, ready to start the engines. When the first guy starts the engines, you start engines and so on. When he starts to taxi, you know, you're taxiing.

And from there, I mean, it's really the lead guy who's working with the Air Boss. You have a frequency and the Air Boss is talking on it, giving directives and so on. I'm not back there talking to him. I'm paying attention to the guy in front of me who is getting directives if needed. I mean, it's not like he's got to micromanage that. He says, you know, taxi for takeoff or you're cleared for take off and so on. And we just follow the other guy.

Q. That was actually a great segue into what, what are your expectations for how an Air Boss should behave, perform and what information they should provide?

A. Well, like I said, most of, you know, all of the Air Boss meetings I go to are essentially structured the same. What's the air space? What are the rules here? What's the waiver? Are you waiving the speed and altitude restrictions? That sort of thing. What are your divert fields? Where are the holding patterns if you have a knock it off, where everybody needs to get out of there? Those kinds of things. And then what the sequence of the acts are and as I described, what the 500 foot line is, 1,000 foot, 1,500 foot. Where the pyro is going to be. Just paints the picture for the pilots. Okay. So, expectations are known. Yes.

Q. And if it was unclear or if you were to have a concern or question, how would you handle that situation?

A. Well, it's always anybody have any questions? Don't leave here having a question. And so, I mean, it's not uncommon that as

you wrap up, you stop by the Air Boss and say, or if it's a more general question, you would just ask it. Hey, what about this? What about that? Or you meet with the Air Boss immediately after, you know. Our group, you know, this is in particular what we have, you know. Yes. I'd like that. No. I don't want to do this or whatever. So, there's a communication that goes there. And by the time you are done, everybody is on the same page.

Q. So, as you mentioned earlier, you've had quite a storied career. Like you've been here. You've done this for a minute. But what if there's a newer person that's coming in who's been qualified and is now ready to do this, are they afforded that same ability to be able to just ask a question or go up after the meeting and get things clarified?

A. Well, sure. And of course, if you're in a subgroup, in a bomber subgroup that may just be one, you know, everybody is talking. And then at the end, one person would go up and talk to the Air Boss, you know. You don't all need to go up there or you wouldn't have a subgroup. Right. You have the subgroup and you figure out what you want to do and if there are any if, ands and buts. What kind of power things we want to do, what kind of speed is going to work. And then somebody is talking to the Air Boss about that. So, it's really not a question there.

But I think to answer your question more directly, you're a senior pilot because you've been there a couple of times to get the check out, so to speak. I don't remember if, Matt Hood was my

copilot who we had just checked out as a captain and he was flying as my copilot. I don't remember if he was a, quote, senior pilot on another aircraft or not. I don't remember. But within our group, say hey, let's get Matt in the B-24. Let him see how we're operating this so that when he's doing a show, he's experienced. That's basically it. We don't want to send anybody out that's not experienced and comfortable.

Q. You talked about the subgroups. Like so, the bomber group gets together. You plan out your strategy, how you want to do this amongst yourselves. Is there any crosstalk between subgroups? Like do you ever go to the fighter group and --

A. Well --

Q. -- you're like hey guys, this is what we're going to do?

A. A little bit. You know, that's really for the Air Boss to sort out. But I guess, you know, there isn't anything that says hey, you can't. Hey fighters, we're doing this or whatever. That's really for the Air Boss to, you know, make those judgements.

Q. So, going back to specifics in this particular Wings Over Dallas pre-brief. Had you worked with this Air Boss before?

A. Yes.

Q. Approximately how many times?

A. Well, at least once. Probably two or three times. I've done the show. I don't remember how many times we did the show but I was at least here for all of them. So, I don't know. Was it

three or four times?

MR. LASCHE: It was three.

MR. BENZING: Three. Yes.

MR. LASCHE: Maybe, could be four but I thought it was three.

MR. BENZING: Yes.

BY DR. WOODS:

Q. And you talked about having that clear picture before you walk out of there, you know. Go do whatever it is. Give rides or step to your aircraft. Was the picture clear that day for you when you walked out of there?

A. Sure. Yes.

Q. Was there anything that was unfamiliar to you that was discussed as to how you were going to approach the day's air show in that meeting?

A. No. You know, I was very comfortable with, you know, I talked to Len the day before. We had discussed how this would work and the next morning we reiterated that. And I had plenty of confidence in Len Root to be lead and me as second in the line. I was very comfortable with that.

Q. Were there any concerns or hesitations that you had leading up to that day or that day?

A. No. What's the weather going to be like? And it was pretty decent. So --

Q. Who's typically in those meetings, those pre-brief meetings?

A. Well, all the pilots and a few other support people who are

intimately involved in it. There will be some, some ground support people. You'll have the safety people, leadership and so on.

Q. Who's responsible for the safety of an air show?

A. All of us. Every one of us.

Q. Great answer. But specifically, who is the belly button for --

A. Well, you know, the Air Boss. I don't know the reg for the Air Boss but I'm sure, pretty sure it says you're in charge and you're responsible. So, yes.

Q. I guess another approach would be then if you had a concern about safety, who would you go to?

A. Well, depends what the, what the circumstances were. If we're in the meeting, I'd be going to the Air Boss. If it was before or after the meeting, if I had something, you know, I'd go to the head of my squadron or ops officer. And if it was a broader concern, I'd go to an aviation officer or safety officer or somebody like that.

Q. You did, this is actually a good question. You talked about like your squadron. And who, who is the leader, I guess, of your squadron?

A. Archie Taylor (ph.) was the, the actual squadron commander. I was the executive officer.

Q. Okay. So, in terms of, so, in civilian terms, if you would consider like who's got the supervisory role for your group, would

that be that person?
A. Yes.
Q. Okay. Just making sure. I have a military background too but not everyone --
A. Good.
Q. -- does. And so, I need to make sure it's kind of established. Like who's in charge here? So, going back up. You had your subgroup. You got back out. I know you say you don't remember if there were rides or anything like that. But after that, as the number two of how many?
A. Well, let's see. Seventeen, 24. There were at least two B-25s. The SB2C I think was it. So, I think there were four. I don't know if there was anyone else in the line.
MR. LASCHE: That's it. Yes. The SB2C was behind you and then the two B-25s.
MR. BENZING: Is that right? Okay. I couldn't see back there.
BY DR. WOODS:
Q. So, five. So, you, so, two of five?
A. It was 17, the 24, the SB2C and then I think two B-25s. Right. Yes.
Q. So, assembling in that role, well, let me lead up to that question. Have you ever been one before?
A. Yes. I don't know if it was in this show or not. But yes. I've been lead.

Q. So, how does your performance differ if you're one versus not one?

A. Two ways. One is you have to be really alert to what the Air Boss is saying if he's giving you a directive during, well, let's put it this way. During the setup for the show and the discussions, you know, you're making sure everybody understands, you know. Are we agreeing on this? What power setting I'm going to use, what am I going to do on a pass and so on. So, you're covering the ground in general beforehand.

And during the show, you're making sure that you're flying smoothly and correctly according to the Air Boss' directives if there's anything in particular so that you make it easy on the guys behind you. You pay attention to your altitude. So, like if I'm in a B-29 and I'm up kind of high, well, they're going to be in my way below me, kind of thing. And, you know, I have to think about those kinds of things. But primarily as lead, you're responsible to communicate with the Air Boss and then fly a good show to work with the guys behind you.

Q. So, you're two now. How does that change?

A. I am basically working hard to stay behind that B-17, you know. Close as I should be, not any closer than I should be on the track. Okay.

Q. Where does that come from? Close as I should be, not as close as I should be.

A. Well, we're not doing formation flying. So, I can't be

closer than 500 feet. They're generally a slower airplane than the 24. So, we talked about power settings and all. But he was flying plenty fast. So, if anything, I was probably a little far behind.

Q. So, you make that, as the pilot, you're making those --

A. Right.

Q. -- course corrections and decisions.

A. Correct.

Q. Not to, I guess, keep flipping you back and forth because you said something when you were one. One of the things is you have to, you've got people back there that are following you and that you have to be respectful and mindful of what they're doing. Things like altitude and like if they're in your wake turbulence. Do you have the latitude to just adjust that on the fly at your will or is that something that you have to check in with the Air Boss on?

A. Well, if he's, if he's assigning a particular altitude or something, that's what you fly. I'm just saying that if you're a big airplane, you have to be mindful of, you know, your effect on others. And the effect might be I won't be lead. You guys be lead because I'm going to be behind you and stirring up the air behind. That might be a strategic decision you make early.

Q. I recognize you weren't one for Wings Over Dallas. But do you happen to know if there were altitudes assigned to each group?

A. Well, there are in general. I mean, you start out saying

fighters, you're going to take off and go up here. You're going to be up here. Bomber passes are generally, you're 200 feet and above. It may be 500 feet, 200 feet, somewhere in there. And then on the exit, you're going to 1,000 feet. That's generally what you do.

Q. Do you know if that was what happened --

A. I think so. Yes.

Q. -- on November 12th?

A. Yes. I believe it was.

Q. And I imagine you've probably worked with a few different Air Bosses.

A. Yes.

Q. For this, and I know it was a while ago now, was there anything different in how this Air Boss did things to, you know, maybe a previous one, a previous show that you had flown last year?

A. Well, I don’t think so. I mean, we fly Redding every year. We've done Thunder Over Michigan and all. And fundamentally, he's going to say when he's ready for the passes for the bombers. And you're going to come in and either just do a pass or do a photo pass. And on your exit, you're going to come up. And where are you going from there? And turn around and come back, that kind of thing. There isn't anything fundamentally different.

Q. And I appreciate that for simple like bomber group passes but I've learned something new, a new term called the bomber parade.

A. Okay.
Q. Can you explain what that is?
A. That's a term for the guy on the microphone, you know. Your bombers are, bomber parade is taxiing by the people in the stands --
Q. Okay.
A. -- or flying by in a trail. I mean, there's nothing technical about that.
Q. So, when you match up dissimilar aircraft, like for instance, the fighter group and the bomber group, what is that called then?
A. Well, I don't know. The fighters are doing something different but they're either doing it ahead of us or behind us, you know. You have it sequenced. So, like the Tora group, for example, they're doing everything in their time slot. They're done. Someone else is doing things. Okay.

Now, if the fighters and bombers are up there together, we're doing our pass and the Air Boss is directing the fighters to do whatever he's got them doing. Okay. We're doing what the Air Boss directs us. We're going to make his pass. That's what we're doing.
Q. So, switching back to one in this instance. If you were in the lead particularly, how aware are you of what those fighters are doing if they're operating in the same box that you are at the same time?
A. I would say generally aware but your main focus is on what

did the Air Boss tell me to do. Okay. He said to come in on this line. And if he doesn't give a specific altitude for the pass, you're going down to the floor of the deck and you're making your pass. If he says fighters do this, well, you may hear them. That doesn't mean he's going to push the stop button, look around and figure out where the fighters are. He's not. Everything is happening. He's flying his, his thing and depending on the fighters to do their thing as correct.

Q. I'm going to go into specifics about the event in a bit but now we're just trying to gather background knowledge --

A. Sure.

Q. -- as to how it all works.

A. You bet.

Q. Have you ever been, this is not, not this specific day, not this specific event. Have you ever been in a situation that got real uncomfortable real quick and that you had to either, you know, call an emergency or call knock it off or remove yourself from the equation?

A. No. I have not. I've not been in a show where they, where the knock it off occurred. We're always cognizant of it. You know, you look around and see if you're flying, I'm not formation rated. But if you're in with someone who is formation rated and you're flying with big airplanes, the big airplane is pretty close. But these are guys who are doing a good job with it. And so, it's not a problem. That's the way it's supposed to be.

They're supposed to be doing a good job of formation flying and so on. And so, no. I have not had, up until this tragedy, not had an experience like that thank god.

DR. WOODS: I think I'm going to stop there for a minute and think about some of the things that you said and hand it off to Shawn for a round.

MR. BENZING: Okay.

DR. WOODS: But before that, how are we doing? Are we still okay?

MR. BENZING: I'm fine. Yes.

DR. WOODS: Is everybody --

MR. BENZING I've got my water.

MR. HEATH: I wouldn't mind going to the bathroom real quick.

MR. BENZING: Okay.

DR. WOODS: Okay.

MR. HEATH: It won't be long.

MR. ETCHER: Off the record at 10:56 local. And back on the record at 11:01. Thank you for your education to me so far. I appreciate it.

MR. BENZING: Hope it's helpful.

MR. ETCHER: I don't know much about air shows. So, you guys have been fantastic educating me. I just hope my little brain can retain even a fraction of your guy's knowledge. So, I do appreciate that. Sabrina asked a lot of questions that I usually ask as well. So, that got a lot of them out of the way. But

sadly, I'm going to kind of ease into the day of the event if that's okay.

MR. BENZING: Sure.

MR. ETCHER: So, if it gets tough, just say so. We'll hit pause. It's okay. You will not offend me even in the slightest. Kind of dovetail off of some of her questions and sorry if it sounds a little random. Usually, I have a little better flow but she --

MR. BENZING: That's fine.

MR. ETCHER: -- asked so many of them, it's fantastic and you gave us so much information. One of the answers you gave her was that your guys' act wasn't complicated, I believe was the phrase you used. It's not complicated for you I think maybe.

MR. BENZING: Right. Sure.

BY MR. ETCHER:

Q. Is it a complicated act if a new person comes on? Is it, can it be complicated, what you guys do, in your opinion?

A. Well, if somebody had never flown in the air show, you know, he may, it may be a challenge. Not that it's a complicated act but just flying following another airplane. But that's why we don't do that. You've got to be a, quote, senior pilot before you do that. Meaning you have to fly with somebody in the air shows who is qualified and you have to fly an air show under the tutelage of someone who's done that. So, it's at least the third time you're flying it. Okay. And similarly, if you're brand new

to the airplane, why would we put a guy in that position? We don't. Okay. So, you want to have a guy who has some experience in the particular airplane and is a senior pilot. And then you would say okay. That's fine. We'll schedule him in that.

Q. Okay.

A. And who is he flying with? You know, are you going to put him with a brand new copilot? No. That's not a good idea. You know, put him with someone who is, you know, got a little experience as well.

Q. Okay.

A. So, there's a couple of factors there.

Q. Okay. And that's, I wanted to get that clarification in my head.

A. Sure.

Q. So, I appreciate that. Now, I know you've done one or two air shows in your career. Can you give me kind of a ballpark of about how many air shows?

A. I don't know. It's not a lot. I don’t know. Maybe 25 or 30 or something like that. You know, I do two, three a year, you know. The airplanes do four or five a year. I do a couple or three a year.

Q. Okay.

A. And that's probably as good a number as I can give.

Q. And that's okay. To me, that sounds like a lot but that's because I don't do air shows. So --

A. Yes.
Q. You know, that's why I always, you know, people --
A. I might go back to my log book and laborious find it was only 15. Sorry about that.
Q. And that's still a lot for me. So, no, no. It's okay. Just, just a ballpark and --
A. Yes.
Q. -- it's all good. So, the day of the event, you guys are briefed. Were there any concerns within your, I think you called it a subgroup, your sub bomber group? Were there any concerns brought up within your group about the day's events, what was planned, anything along that line?
A. I don't believe so, you know. I was very happy that Len was going to be in the 17 flying lead. So, that was going to work for me. I didn't know anything in particular about the SB2C except it's very capable. And I knew at least one of the crews of the B-25, you know. So, you know, we had a comfort level as far as, you know, nobody is going to do anything weird, not that you would expect it, you know. So, this should work fine. No problem. And so, that's what our expectation was.
Q. Okay. Did you guys, whether in your subgroup or the big group, did you guys brief the fighters coming in to give you the appearance of top cover? Forgive me. I'm trying to use terms that I'm learning and I'm probably messing them up.
A. Not to my recollection but it could very well. Len, for

example, may very well have talked to somebody on P-51s or something. May very well have but I don't know. It was mostly what we're going to do.

Q. Okay.

A. Okay. Because it wouldn't be us making a plan. Hey, hey, fighters, do this with us. That's not up to us. That's the Air Boss' job to put together. So, that wouldn't have been anything our subgroup would particularly be doing, a little subplot over here. But it's not to say that, you know, you wouldn't have some conversation with them.

Q. So, I know when I plan things, I have an expectation of this is what I think I'm going to do. This is what I know I'm going to do. But for something like that, you said Len may have discussed something with the Air Boss, with the fighters, whatever. Is your expectation that he would pass that on to you guys at all or --

A. Well, if there were any changes.

Q. Okay. Sure. If there were no changes, I'm not, okay.

A. No. Yes.

Q. All right. So, we'll kind of skip forward a little bit now. You're out at the airplane. You guys are lined up in wait. Take off, everything is fine. Were there any weather concerns that you, different winds, sun glare?

A. Not really. The winds were I think fairly light but I don't, they weren't going to really affect us. They weren't, they weren't pushing our limits to my recollection.

Q. Okay. And what was your guys' line to fly? Were you on the 500, the 1,000 foot line or was it varied throughout?
A. Well, we were allowed on any of them. So, it's whatever was directed and we fundamentally were on the 1,000 foot line.
Q. Okay. So, does the Air Boss tell you what line to fly? Is that how it goes? Or let me rephrase that.
A. For the pass --
Q. Okay.
A. -- you'd say okay, 1,000 foot, as I recall.
Q. All right. So, let's say the Air Boss tells you to, you know, fly the 1,000 foot line. What is your desire to be on that 1,000 foot line? Is it partway down the runway, as you're approaching the runway? When do you want to be on that 1,000 foot line?
A. Well --
Q. Give or take a few feet obviously.
A. Well, over the airport, you know. That line goes from one end of the runway to the other basically. So, that's where you'd be on it.
Q. Okay. But would you want to be on it before you entered the airport or is it just somewhere on that --
A. Depends on what kind of a pass you're making.
Q. Okay.
A. For example, if you've got a runway there with a 1,000 foot line and you're making a photo pass, which is not what we were

doing, but if you're coming angling in, you would need to be on the 1,000 foot line as you pass the crowd line. Then you've got an exit point. So, then you curve back to --

Q. Okay.

A. -- the exit point. So, what matters is as you're going by the area where the people are, for safety, you're on your line.

Q. Okay.

A. Okay. But if you're making straight passes, you know, you're not going to make any last minute change. You're going to be basically coming in and lining up on the 1,000 foot line. So, my recollection is we were as we entered the airport property.

Q. Okay. Perfect. No. And I just, it helps me understand.

A. Sure. Understand.

Q. I like to be the fly on your shoulder, if you will. I want to see and hear everything you do.

A. Absolutely.

Q. Because --

A. Yes.

Q. -- I can speculate but that's all I would be doing. You were there. So, you're flying and you're not in formation. You're in trail of the B-17 ahead of you, 500 feet ahead give or take.

A. No. I was closer to a half mile but --

Q. Okay, okay.

A. I was back quite a bit. Probably a little further than I really wanted to be but that's what it was.

Q. Okay.
A. So --
Q. All right. No. Perfect. You were behind them a little bit then.
A. Yes.
Q. When you, and again, sorry. I have not flown air shows. So, I'm wanting to be those eyes with you. When you're in trail, what are you looking for? Are you, I don't want to say fixated but are you watching just the plane in front of you?
A. Essentially, yes.
Q. Okay.
A. Because when you're maneuvering, for example, I mean, we're not flying straight ahead all day. They're making turns and I'm needing to be in sequence. So, I'm trying to figure out my distance from them. If I'm behind, I want to be cutting inside slightly. Okay. If he's slow, I may go outside a little bit to make a little longer path for myself to help the geometry. You're just thinking in very general terms where is that guy, where am I fitting in? He's, he's really going here. Let me cut in a little bit so that I pick up a little bit of distance in the turn, those kinds of things. When he's straight and level and I'm behind him, I'm right behind, you know, directly behind him.
Q. Okay. Now, I know you were closer to a half a mile behind or whatever. But I did hear on the recording, the Air Boss said once, maybe twice, I think it was bombers tighten it up.

A. That would have been me too far behind maybe. I don't know.

MR. LASCHE: He said give me a couple inches.

MR. BENZING: Yes.

BY MR. ETCHER:

Q. So, if you're told to tighten it up, are you going to, on the lead pilot turns, are you going to cut the corner? Forgive me for using --

A. Well, it's not really cutting the corner. It's using the geometry to shorten the distance.

Q. Okay.

A. Sure. Absolutely. Or I would use a higher power setting or both.

Q. Okay. So, you're not running at full power I assume doing an air show.

A. No.

Q. Because I think, correct me if I'm wrong, you said you're a little bit better performance than a 17.

A. If, if everything is equal, yes. But how hard is he pushing it, you know, versus, and what's his geometry? You know, when he makes the turn, I don't, I have to see the turn before I go okay. This is what I'm doing. Okay. And if the distance is too far, I've got to, I had Matt working the power, you know. Bring the power up, you know. Give me a couple inches here. So, you're, it's a dynamic thing within, you know, we're not flying tight formations so I don't have to be right on it. But I'm making the

judgement. Hey, we got kind of far back. Here, he's going pretty good.

Q. Okay.

A. And so, if he's starting to descend, he's picking up speed. Guess what? Until I start the descent, I'm not picking up speed. Okay. Now, I'm picking up speed. And so, all those things effect distance.

Q. Okay. No. I appreciate that and you just knocked off a few more questions off my list, off both screens.

A. Okay.

Q. So, I do appreciate that. When you guys are up flying, I know, correct me if I'm wrong. I shouldn't say I know. Correct me if I'm wrong. The lead pilot does the communication with the Air Boss.

A. Correct.

Q. You don't as number two. Do you guys have another discreet frequency you communicate on with each other?

A. No.

Q. Or you just --

A. No.

Q. -- listen on up?

A. No. We're just on Air Boss freq.

Q. Okay. And I believe just a little bit about you said you would have your copilot increase the power.

A. In this case, that worked best.

Q. Okay.
A. He was, you know, a new captain but he's a very sharp guy. And I thought hey, this works great because in a B-24, power is a little bit complicated. And so, why not offload that so I can go watching outside?
Q. Okay. Good use of CRM. Right.
A. Yes.
Q. It's just what you were taught back in the day.
A. Right.
Q. All right. Now, I know you have been to 15, 25, 30 airshows, whatever it's been. More than I've ever flown in. So, kind of think back to the day of the event, Wings Over Dallas. How was the congestion on the frequency? Was it normal? Was it not much congestion? Was it, and if you can't remember, I don't know works.
A. I would guess normal.
Q. Okay.
A. I mean, it's a busy frequency. But I don't remember, you know, as I'm sitting here today, I don’t remember it being different.
Q. Okay. All right. Did you, while you were doing your passes and then you go out and do the dog bone and come back in, did you know the fighters were going to come up alongside you guys on that last pass?
A. No. Not until, you know, the Air Boss said it, I didn't.

Q. But you could, you could clearly hear him say for them to do that. It wasn't --
A. I heard him say something about the fighters come in but I wasn't necessarily focused on that. But in general, yes.
Q. Okay. I know you were in trail. Could you see the fighters?
A. I saw them just before they went ahead of the 17. But I, but they, again, I was pretty far back and I don't know how many I saw. I think I saw two but I didn't really know how many there were. Okay. I wasn't really thinking there's three fighters, there's four fighters or whatever. He called fighters in. And yes. There they're going in ahead of him. Okay. And that's what I saw. I said okay. There they are. They're ahead of the 17. Okay. I didn't see the third one.
Q. Okay. Do you know typically how many fighters are up when you guys are up or do you just know that there's five us here in the bomber group? That's all I really know about.
A. Yes. I mean, let's say you may know. Hey, there's two Mustangs. There's a Corsair. There's a P-40, whatever. You may know that but it's not like you're necessarily keeping track of that. They're doing their thing. And if he calls them in to fly, you're not going I see the fourth guy unless, unless he says. Hey, there's four of them. Watch for number four or something.
Q. Okay.
A. I don’t think you would try to understand what all the dynamics of the airspace are. You're doing what you're told and

he's doing the choreography. And that's where the basic idea is that you are not trying to figure out that level of specificity.
Q. Just so I can try and see what you're seeing. You're more focused, can I use that phrase, on the 17 ahead of you.
A. Hundred percent.
Q. Okay.
A. If I'd been lead and he told me that, well, I'd be looking for the fighters. And if I didn't know how many or if I thought they were there, you know, there isn't anything I can really do about it. I mean, I'm just a stationary, almost a stationary thing and the fighters are swooping, you know. So --
Q. In your experience doing air shows and being a lead even in some, correct?
A. Mm-hm.
Q. Would you, is your expectation that the Air Boss is also keeping them separate from you guys or you just, do you expect you as pilots to see and avoid each other?
A. Well --
Q. Or both, or a combo?
A. There's different circumstances.
Q. Okay.
A. If they're calling in an act to fly something specific, that's the Air Boss directing. Okay. So, you bombers, you do this. Fighters, you do that. That's the Air Boss. If it is hey, follow the fighters, now I've got to follow the fighters. Okay.

Well, they're a lot faster but I see where they're going. And okay.

Q. Okay.

A. So --

Q. During air shows, do you guys usually have, I know you talked about having a floor of low altitude as your base. But are you guys usually assigned any altitudes during air shows or in the briefing? Like hey, during the air show, you guys, here's your window of altitude. Don't differ. You know, don't --

A. Yes. Basically. Again, it's, it depends on the circumstance. Okay. Where are you going after a pass? Well, the bomber is going to go to 1,000 feet, let's say. When the fighters are orbiting, what are they going to be at? Well, they're going to be at a different altitude that's assigned. Okay. So, there are different strata that's assigned. And then basically, within, within the flow of the show, bombers you do this. Fighters you do that. So, then the altitude separation is a different issue.

Q. Okay.

A. Okay.

Q. So, during, not on your orbits, but during your passes across the runway, are there altitudes assigned at all or is it just --

A. No. It's make a pass on the 1,000 foot line, you know, 200 feet or 500 foot pass.

Q. Okay.

A. Something like that.

Q. Okay. Perfect. What altitudes do you guys usually fly, you know, down the line?
A. If I'm in a big airplane, you know, I'm doing about 300 feet.
Q. Okay.
A. I want to have a little bit of buffer there. Those big things are not assutaneous (ph.). Okay.
Q. Takes them a little bit to move.
A. Yes.
Q. All right. I know we talked about the B-17 leading. And is that a normal sequence? Do you like having the B-17 lead more than the 24 or --
A. Well, I've done it with lots of different scenarios but that works well. If they are the, quote, slower airplane, I don't have to worry about leaving him in the dust. I can adjust. In fact, he was keeping really good time there. I was being a little slow. I was being maybe a little pessimistic about what he was going to do. But anyway, that works well.
Q. Okay.
A. Okay.
Q. Perfect. We noticed during the accident sequence that there was a Stearman that came in and landed. Very similar timing. Do you, as a participant in the air show, do you ever, are you ever aware of somebody coming in and landing? Is that even something you even, I don't want to say --
A. Generally, generally not.

Q. Okay.
A. We could be aware of it, you know. You know, you've got an airplane sitting on the taxiway. You might see that but you can't sit there and look at that.
Q. Right.
A. You know, these are all millisecond things. Right.
Q. Right.
A. I wasn't aware of the Stearman. And if I had been, it would be he's landing. I wasn't landing. So, it didn't matter. It wasn't really going to conflict.
Q. Okay. And that's what I was trying to get into. So, thank you for, you must be looking at my sheet here to know what my next questions are. So, I do appreciate that. To me, leading up to the accident, kind of sounded like radio congestion. It seemed like there might have been a little confusion on who needs to be where. Were you aware of any of that? Did that sound, any confusion to you by anybody?
A. No.
Q. Okay. It sounded, I'll go back to your normal term, normal.
A. It sounded normal. I mean, called us in to do a pass and we're following. He said something to the fighters about a pass. But as far as I know, there wasn't congestion but there could have been. It's been a while.
Q. Okay. No. And it's okay. I was just kind of --
A. Yes.

Q. I'm trying to pull your --
A. Yes.
Q. -- the knowledge you have to educate me.
A. Yes.
Q. So, thank you. So, you're in trail of the 17. You're watching the 17. You see the accident. What you can recall right before and kind of up to and through that, kind of walk me through that. Let me be those eyes if you can.
A. So, I'm focused on watching him and he's on the line. And I'm thinking, you know, we're a little far back but this is working. And something about the fighters coming in. And I'm kind of looking, you know, and then I, I saw two fighters come in. And I said okay. They're ahead of the 17. That's good. And then I saw this thing erupt, you know, just kind of disintegrate in front of me. And I mean, there's, a lot of different things go through your mind but the predominant thought was what, I mean, why? Because I did not see the other fighter come in and hit him. So, in that millisecond when everything just was coming apart, it was, the only thing I had seen is the fighters go ahead. And I thought he couldn't have hit him and he didn't hit the ground. Why is he disintegrating here in front of me?

And the tragedy of it and, you know, all those things are going. And well, we've got to get out of here, you know. And then Matt and I were both, hey, let's get the power up and break out. And the Air Boss was saying pull out. So, I didn't see the

fighter that came in and hit him. I was a bit back, far back and the lighting or whatever. I think it was a light colored aircraft. And so, it was a bit of confusion to me, among other things. But it's happening. So, we're just trying to get out of there without causing any more disruption. And I saw the fighters up above that pulled through and we were turning inside of them. We were told to go to the holding area which we did.

Q. Okay. So, where was your holding, I know you, forgive me. Let me back up one second. This was the first time you heard knock it off at an air show. Did I get that right earlier?

A. Yes, yes.

Q. So, where was your holding, where was your knock off?

A. It was a little bit behind us. It was over the red church to the south of the airport.

Q. So, you went to the red church.

A. Yes.

Q. And drew circles in the sky for a little bit I assume.

A. Yes.

Q. How long were you there before they said go to your alternate or whatever was said?

A. A couple of turns. And they were, he was, you know, being proactive and asking, you know, where do you want to divert to? And, you know, we had already talked about divert fields. But, you know, and I had said to Matt, I said, you know, let's think about going to Meacham over in Fort Worth because we had been

based there previously. There would be a little bit of support there and that was just what was kind of a forefront on my mind when we're going around. And then he was, then some of them were diverting to Lancaster which was very close by. And I have been there. I've been to Lancaster with that airplane. And then I went Lancaster would be fine. But Matt was working the radios and when he first asked, you know, where do you want to go, I think Matt was saying well, standby here. We're working on it or something.

You know, I said no. Tell him Lancaster is fine, you know. I don't want to, there's all the logistical things. There's a lot of things going on. And of course, you're still in the shock of this accident. But I said, you know, Lancaster is good. Knowing that I had been there before, I knew it would be fine, 5,000 foot runway and met our requirements. So, after another turn or so, I think the Air Boss said well, just turn there for a while. We're trying to keep the congestion away from the traffic pattern down there. Okay. Which was a good move. And so, a couple of minutes later, then we diverted.

Q. Was that the plan going in if the knock it off call was given? Was that your plan, was Lancaster or did you guys have a preselected --

A. There were, it wasn't like my god, where are we going to go? Because we operate out of that field. We know the area. You know, there were a number of options we had.

Q. Okay, okay. All right. When you safely got on the ground, engines shut down, airplane is secured, did you guys debrief at all?

A. You know, that's a great question. It was mostly Matt and I and Jim Gentry (ph.). And so, we just, you know, we were having a little bit of a conversation. But I don't know. Somewhat to my regret, I didn't just pull the entire crew. It's like we all kind of made our way to the hangar. We were shutting, we were talking about are we going back? Are we shutting down the airplane? We were talking in terms of that. Okay. And to me, if you're involved in an incident, it's pretty important to debrief if something went wrong in your crew. But that wasn't the mindset, you know. The mindset was we just witnessed a tragedy and we're all processing this.

And, you know, what are we doing, you know, now in the immediate? Are we shutting down this airplane? Are we making sure it's secure? Everybody is safe. Somebody is coming to get us and all that. Now, we did ride back together, you know, and so on. But I didn't really, as a PIC, I really should have said, okay, let's call this a debrief and let's kind of go through everything. It was more like I knew what I saw. He knows what he saw. Jim is sitting right there and Ron Walson (ph.), our scanner, he was in the back. He didn't see any of it, you know. So --

Q. Okay. All right. I have one last question for you and then

I'll flick it back to Sabrina to pass on. When you're doing your maneuvers kind of in this event, if you see an airplane getting a little too close to you for comfort, maybe not on a collision course but too close to you for comfort, what do you do? Is there anything you can do? I mean, I know you're following your guy or you're listening to the boss. But --

A. I don't know. It would depend on the circumstance. You could say hey, Air Boss, 24, what's this guy doing here? Something like that I guess.

Q. Okay.

A. You know, it's like anything else where you get a squeeze. At what point do you say knock it off? You know, if you think it's really critical, you would say that. Otherwise, you know, you're all on the same frequency and it would work best if you had the Air Boss direct him, you know, something like that.

Q. So, as a pilot, you can issue the knock it off command too?

A. Of course. Well, absolutely.

Q. Okay. That's the first time I've heard that. So, I just wanted to make sure. I hadn't heard that.

A. Absolutely. And, you know, that's made clear in the briefing, in the briefing. It's a knock it off. If you see something that is dangerous, call it.

MR. ETCHER: Okay. All right. I've got a lot to mull on here for a little bit. So, I'm going to pass it on but I do appreciate it.

MR. BENZING: Yes.

MR. ETCHER: Sabrina.

DR. WOODS: Bob, actually, you're up. Do you have any questions?

MR. HEATH: No. I don't have any questions. Thank you.

DR. WOODS: Okay. And are you still doing okay?

MR. BENZING: Yes, ma'am.

DR. WOODS: All right. I'm going to ask this question twice from two different points of view because you've flown both in the past.

BY DR. WOODS:

Q. So, starting at what you were. In this instance, you were in trail. You were not the lead. How would you describe the leadership between the Air Boss and you as a performer?

A. I don't know. Professional. He respects that I'm flying my airplane within its capabilities, you know. He doesn't, I would say he wouldn't have any concerns about my ability to do, to fly the show correctly and vice versa.

Q. And what are you getting out of the Air Boss?

A. Well, first of all, since it wasn't the first show with him, I, you know, didn't have any surprises or, you know, he was covering the things that I expected him to cover.

Q. I mean, generically, any Air Boss, by the way. As a performer, what are you getting, what are you relying on the Air Boss for during the show as a person in trail, not as lead?

A. Well, you're relying on him to run the show professionally. So, that, he's giving clear directives to the lead and I follow the lead. You know, if he's doing that, it's going to work fine.
Q. And now, I'm going to have you switch hats. Now, you're lead.
A. Yes.
Q. How does that relationship dynamic change between you and the Air Boss?
A. Well, I expect him to be clear about what he wants me to do and I'm not looking for any surprises. Okay. Something beyond what I could do with my aircraft or my flying of aircraft.
Q. What about the handling of other aircraft working and operating in the same spaces?
A. Well, the same space, that's the subjective part of it. Okay. If you're both making passes, you can't both be in the same space. So, it is how is he handling the directive for the fighters to go here, you to be there and so on? And you may, even as lead, not have the overall situational awareness of what that is. There's a guy coming in from behind you to your right or your left faster, whatever. That's for the Air Boss to sort out and you are assuming that he's going to do that.
Q. You actually picked up the word that I was looking for which is situation awareness. Whose responsibility is that?
A. We all, we all. Okay. Because if it's not going to work, if the Air Boss says do this and you're going, you know what, that's

not going to work, you're going to tell him. All right. If you know that that's the problem, that's the situation. You know, having your head on swivel, you know, being aware to the best of your ability of the overall dynamic is pretty helpful. But it doesn't mean that the guy sitting in the cockpit has the same picture that the Air Boss has.

Q. In your words, where would you say that trust come into that relationship?

A. Well, the beginning and the end. I mean, when you show up, when you're going to fly an air show, you wouldn't be there if you didn't have trust that the Air Boss was going to be handling this. Okay. And you wouldn't be flying in it if you didn't have that confidence.

Q. And did you have that confidence that day?

A. Sure. Of course.

Q. Just for clarity. I do think we've actually already asked this but the day is getting longer. Do you know what your line was for that last pass preceding, directly preceding the accident?

A. I believe it was the 1,000 foot line.

Q. And to confirm, you being in trail, were not necessarily cognizant of what the fighters were assigned and what they were doing.

A. No. Not really.

Q. Yes. Because at that time, your job is to follow your lead.

A. Right.

DR. WOODS: Okay, okay. Yes. I think that's all I have, except for my usual concluding questions. I reserve the right to alibi. I'm going to hand off to Shawn again.

MR. ETCHER: I just have just a couple.

MR. BENZING: Sure. So, and apologies. I should have asked this one on the first round.

BY MR. ETCHER:

Q. You've been here a while, fly lots of things. In your time here, how has the training been for you? Is it great? Has it improved vastly? Whatever terms you want to use, just kind of help me understand. Where would you put training today as when you first came on?

A. You talking about in general or air show training?

Q. I prefer both but tell me whichever --

A. Okay.

Q. -- you wish.

A. Well, in my role with the squadron, the B-29, B-24, that is really a large part of what I was involved in. So, it's always incremental but over the 11 years I was there, we ramped this up considerably, continuously. Okay. And I'm very proud of that. Writing manuals so that they are easy to understand, that there's clarity there, that there's accuracy there. They're still, quote, military quasi but they also have to be to the aircraft that we operate. We have the benefit of the CAF regulation, 60-1, which is very specific about some things on training. Like within the

last few years, we implemented things like the requirement for every check ride and every training to have a two hour cockpit preparation for each pilot every year. Well, that's a good old commonsense thing that now is there in the regulation and that's made a huge difference. Okay. So, okay. You don't, we can't do our check ride until we've had our two hour cockpit prep. And our annual ground schools are really quite the big event, you know. You're there all day going through PowerPoints on, not only systems but CRM, the SMS stuff and really having a great group of people that have focus on doing things the right way. And I'm very, very pleased and proud that that's advanced. We've got a really great training operation and it's not easy to do when you've got old airplanes and all volunteers and all that. So --

Q. Okay. How about with performers you see in air shows? I assume with CAF, you probably don't pair up with Joe Smith with his own personal B-17 or something.

A. Well, there are different groups. Like if you're at, I'm not saying Wings Over Dallas in particular. But if you go to Thunder Over Michigan or somewhere else, they'll have the Yankee Air Museum. They'll have this or that. So, there can be. So, you're careful about that, you know. Who do you want to fly with? And if it is that they may not be up to par, it's you don't know them the same way you know your people. Okay. So, that's kind of our thing, you know. We fly our two bombers because it's a known quantity. I think that's just, you can't know everybody. Right.

Q. Okay.
A. So --
Q. All right. Perfect. The last question I have. I think it was Sabrina maybe asked a question and you said something about you want your Air Boss to be professional. Your opinion on this one. Was the Air Boss on the day of the event what you would call professional?
A. I think so. I mean, he was running the show in the way that you expect, you know. So, yes.
MR. ETCHER: Okay. Perfect. Again, thank you so much. I can't thank you enough for letting me that fly on your shoulder and seeing how it's done. So, thank you.
MR. BENZING: Well, I hope it's helpful.
MR. ETCHER: It is.
DR. WOODS: Bob, do you have any questions?
MR. HEATH: No. I don't have any.
DR. WOODS: I do have one alibi question and that is feedback.
BY DR. WOODS:
Q. If you saw something out that you felt needed to be addressed, like a big CAF level, what processes are in place for you to be able to do that?
A. Well, first of all, within my squadron, I'd talk to the ops officer. Okay. Because he's, you know, the heart of a lot of stuff. And otherwise, I would give Bob a call or Jim Lasche or

something. I have a good working relationship with a lot of people here. So, there are avenues, you know. You can do it anonymously with the safety button and all that. But really, you've got a good working relationship with headquarters or I do and that's who I'd be talking with.

Q. And is that something that you've done before?

A. On some things. Somewhere along the way, I've said hey, what about this, what about that? But nothing in particular for the Wings Over Dallas.

Q. And it's something that, in general, you feel comfortable doing?

A. Of course.

Q. Okay. So, the last question that we always ask is that you had a little bit of time to know that we were coming and I know that you've been through this process before. But we're fairly new to the case. And so, again, we appreciate you having to do it again. I always ask was there anything that we did not ask that you totally thought we were going to ask?

A. I don't think so. You know, I thought you might ask about the training and stuff and you did. And you asked about the event. I expected that. So, no. Really, I think you covered it very thoroughly.

Q. Okay. And is there anybody else that you can think of that might have even better insight than you? We have a couple other people coming in for sure. But is there any name you can think of

that like, you know what, that person probably knows the most about all of this?

A. Well, I don't know who was on your list. I know you talked to my copilot earlier but, you know, we were both same place, same time. So --

Q. Okay.

A. But other than that, I don't know. Someone mentioned the B-17 people. They may something about the airplane but I don't know if that's really relevant. But anyway --

DR. WOODS: Okay. All right.

MR. BENZING: Yes.

DR. WOODS: Well, that, again, we appreciate your time. This has been, this has been a great education for both of us. So, we are off the record at 11:41 Central.

(Whereupon, at 11:41 a.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 12, 2022 Interview of Al Benzing
ACCIDENT NO.:	CEN23MA034
PLACE:	Dallas, Texas
DATE:	August 10, 2023

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.



Brenda Field
Transcriber

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
FATAL COLLISION AT WINGS OVER	*	
DALLAS AIRSHOW AT THE DALLAS	*	Accident No.: CEN23MA034
EXECUTIVE AIRPORT IN DALLAS, TEXAS	*	
ON NOVEMBER 12, 2022	*	
	*	

Interview of: GENA LINEBARGER, Airshow Chairman
Commemorative Air Force

Dallas, Texas

Tuesday,
August 8, 2023

APPEARANCES:

DR. SABRINA WOODS, Investigator
National Transportation Safety Board

SHAWN ETCHER, Investigator
National Transportation Safety Board

JIM LASCHE, Chief Aviation Officer
Representative

BOB HEATH, Director
Commemorative Air Force

I N D E X

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I N T E R V I E W

(11:51 a.m.)

MR. ETCHER: Well good morning. It's August 10th. It's 11:51, Central Time. May name is Shawn Etcher. I'm an operational factors investigator with the NTSB. All that means is I look at everything that happens forward of the cockpit door, if you will and how it interacts with the pilots. And you're here because although you may not have directly interacted with the pilots, you're going to help, I understand set this whole thing up. So I kind of want to learn --

MS. LINEBERGER: Yes.

MR. ETCHER: I want your brilliance to come through to me and help me understand all that goes on when it comes to an air show. So I do appreciate that. Of course I'm just one person. And I'm not that smart even, so I'm, I'm lucky enough to have some great colleagues to help and Sabrina is here as well.

I'll have her introduce herself but we also have a -- we're both still limited so that's why we have a party system. We have experts that come in and Bob is the expert for the CAF to kind of help us to make sure what we think is fact is real.

MR. HEATH: Is real, yeah.

MR. ETCHER: And so, you know, and it really helps us to make sure we don't do something incorrect, because that doesn't do anybody any good. But I will go around and let everybody introduce themselves to you.

MS. LINEBERGER: Okay.

MR. ETCHER: Ms. Sabrina.

DR. WOODS: Okay. So Dr. Sabrina Woods. I'm a human performance investigator with the NTSB. And so but my function kind of complements Shawn in that I look essentially everything that helps enable and detract from a person being able to do their job.

A lot of that is also understanding like the constructs in which that job is done, so like the procedures, the, you know, the training, how we get from point A to point B. And so that is why I'm very interested in what you have to say.

MS. LINEBERGER: Okay.

MR. ETCHER: Thank you. And Bob?

MR. HEATH: I'm Bob Heath, director of operations. I think you know me already.

MR. ETCHER: So that's the three of us who will be asking you questions.

MS. LINEBERGER: Okay.

MR. ETCHER: So we do appreciate it again. But you always have the right to tell that you don't want to talk to one of us. And is there anybody here that you don't want in the room with you?

MS. LINEBERGER: No. Everybody's just fine.

MR. ETCHER: All right. Perfect. As you can see we're going to use a digital recorder today. When we're all done with this

this evening, I'm going to send these recordings off to our transcriptionists. They're going to transcribe this, they're going to send it back to us. There's probably going to be some typos because they don't, they don't always speak aviation terms. So and that's understandable. APU kind of sounds like ABU sometimes.

MS. LINEBERGER: And they might not speak Texas slang, so.

MR. ETCHER: And that could add a whole new level for us. But as all we do is we go through the transcript and we make any of those typo corrections. And then we send it back, they recertify it.

We don't change what you say. But that recertified document will actually become part of the public docket later. But again as the audio will not. So are you okay with us using a digital recorder and having it transcribed?

MS. LINEBERGER: Yes, I am.

MR. ETCHER: All right. As part of our regulations you're entitled to have somebody here with you if you wish. You're not required. But would you like to have a representative here with you?

MS. LINEBERGER: Are you my representative?

MR. LASCHE: If you want me to be, yes.

MS. LINEBERGER: Okay. Thank you.

MR. ETCHER: All right. And Jim, would you say your name for the recording.

MR. LASCHE: Jim Lasche, CAF chief aviation officer.

MR. ETCHER: Perfect. I would like to set just a few ground rules before we start. Sometimes I think one thing in my brain but my brain doesn't always connect to my mouth. That doesn't come out quite the same or as brilliant as I thought it might have.

So if there is ever anything I ask or any of us asks that you don't understand, ask for clarification. It's a two-way street to me because if you give me an answer I don't understand, I'm going to ask for clarification just so I understand --

MS. LINEBERGER: Okay.

MR. ETCHER: -- what you're saying. If you need a break, if you need to confer with your representative, anything, just say so, we'll be happy to take a break. We'll even leave the room, even pause the recorder so don't hesitate. Just let us know. We're going to ask throughout if you need a break but sometimes I forget. Thankfully Sabrina's here to correct me and she always remembers. So --

MS. LINEBERGER: Okay.

MR. ETCHER: And I think I already said it but I did and it's okay, I'll resay it. If you don't know an answer, I don't know works perfect. So don't hesitate. This isn't, this isn't an interrogation. This is just you're educating me. All right?

MS. LINEBERGER: Okay.

MR. ETCHER: So with that do you have any questions before we

start?

MS. LINEBERGER: No. I'm good to go.

MR. ETCHER: All right.

INTERVIEW OF GENA LINEBARGER

BY MR. ETCHER:

Q. So I always start with the really tough questions first at least it is for me. Can you please state your full name and spell your last?

A. Full name is Regina Lee Linebarger, L-I-N-E-B-A-R-G-E-R.

Q. All right.

A. Look at me looking at the recorder.

Q. That's okay. Afterwhile you'll forget it's there. I always do. So since we're talking about Wings Over Dallas, the event that occurred last November, what was your role, job description, however you want to classify it for that?

A. For Wings Over Dallas I was the air show chairman. And I also was the responsible person for the waiver. I was a waiver holder so I signed the waiver. They got us the waivered air space to put on the air show.

I also, I helped with hiring acts both in the air and on the ground whether it be, you know, the aircraft coming in. We discussed all -- we discussed that. But I hired the sound system, the air boss, announcer and then any of the logistics for concessions, anything on the ground I handled that.

Q. So that doesn't sound like a super easy, light job. It

sounds like it's a hand full. Is that a good way of putting it?
A. It's a lot of moving pieces that have to come together as a plan.
Q. All right. Now you said you're the one that -- you're responsible person, you get the waiver holder and all that? The waiver with?
A. With the FAA.
Q. Okay.
A. Yeah. We submit an application of the waiver to FAA, which is the standard air show procedure when you're using waivered airspace to fly your air show.
Q. Okay. Perfect. So as part of your job is it -- are you, are you contracted with the airport, CAF? Are you an employee of either of those? How do you get to be --
A. I'm actually a member of the Commemorative Air Force, a life member as a matter of fact. But in this role I've put on a lot of air shows in Midland, Texas, my home town. And they asked me to come on board to help out and it is a compensated position.
Q. Okay. All right. Just give me a ballpark, how many air shows have you done all this work for in the past? Is this like your second, third one or have you done like 10, 15?
A. I've done four in, for the Wings Over Dallas.
Q. Okay.
A. And Midland Airshow, I have done -- as air show director in that capacity for Midland Airshow I've done at least 10 to 12.

But I've been working with air shows since 2000 was my first time to be on the air show committee in Midland. So that's where my experience comes from.

Then for the last two years I've been -- I've helped with the Rose City Air Fest of Tyler, Texas and the Cedar Creek Airshow in conjunction with each other. I've been their -- what's the word -- consultant, a paid consultant. So I helped them with all the logistics.

Q. Okay. So you've definitely done a few air shows in the past then. So --

A. And the other, the other side of the coin is as a CAF member I also do pyrotechnics, the ground explosions when the aircraft come over like they're dropping bombs so we do reenactments of World War II. So I do that. And I go to at least 10 to 12 air shows every year and I've done that for 25 years.

So I go to a lot of the briefings. If I run the field I am the shooter in charge. And I've been to many, many great things with lots of different air bosses. So I -- and then I listened on the radio when I'm on the pyro field so I've got, I've got a feel for what it's like in the air, on the ground and the rules that go along with all of it.

Q. Okay. So just for clarification for Wings Over Dallas last November were you in part of the pyrotechnics?

A. I was not.

Q. Okay.

A. When you're the air show chairman you do not have time to do anything other than that.
Q. I kind of assumed. But I just figured if I don't ask --
A. Yes.
Q. -- I won't know. So I appreciate that. So let's kind of talk specifically for a little bit, if you will, about Wings Over Dallas. How far in advance do you know that the air show's going to happen first?
A. We probably start -- well we start planning it right after the last air show.
Q. Okay.
A. I mean you've got to go ahead and set your dates, you submit things to the International Council of Air Shows of the date. Wings Over Dallas air show though is more contained with just our own CAF aircraft that the CAF owns because we have one of the largest World War II exhibits for flying aircraft.

So we don't hire a lot of outside non-CAF aircraft. There are a few that come in that are member-owned, members being members of the CAF. But we'll start with picking a date right after that.

I can tell you that 2024, a date will be November 11th, 12th, something like that, whatever falls in that time weekend. So you start, you start early. I mean at least no later than six months out you start getting hot and heavy into the seriousness of it and what -- what performers you have coming in and logistics there.

Q. Okay. Because this is -- and I want to use strictly CAF, but mostly CAF, maybe that's a better way of putting it. Does that make it easier or more complex from your view point to set up the show and get it all.

A. No, it's the same.

Q. Okay.

A. It's the same. It's all -- you're, you're still inviting or hiring those aircraft to come in. Not hiring. You're inviting the aircraft to come in and so you -- then you figure out the logistics of rooming, you know, lodging, rental cars, what type of fuel, oil, how many crew members, whether it's a CAF member or a CAF aircraft or if you're inviting another privately owned aircraft in. Makes no difference.

Q. Okay. All right. So excuse me --

A. And I talk with my hands so you'll see a lot of that.

Q. I do too. So forgive me in advance. I guess we'll be talking together. So you start a year in advance, and then you said six months it gets hot and heavy.

A. Mm-hmm.

Q. How many air shows do you coordinate, set up, do this job for at a time? Do you just do one at a time? Or have you got multiple future air shows you're juggling?

A. I just work on that year's air show. But for me I do Midland Airshow and the Wings Over Dallas. Midland being a September show, Wings Over Dallas now being a November show.

Q. Okay.
A. And then the consulting for the ones I do in Tyler and at the Lake. That's just all -- that's a lot of phone call. I don't do the leg work. I only help them solve their problems.
Q. Okay. All right. So since you said come about six months prior it gets hot and heavy, let me be a fly on your shoulder if you will. Walk me through that six months to the air show, kind of I'll say a day in the life, which it maybe a week in a life, whatever. But just kind of walk me through what it is for -- what it is you've got to do so that air show goes off on November X, on time?
A. Where do you start? The FAA waiver is the big thing. You've got to submit the waiver before you can even have an air show. So the paperwork goes in to the FAA. We have to wait for them to approve it but in the meantime while they're working on the paperwork, we let them know what pilots we have coming in, the ground plan that we have going, the schedule that we're going to keep for the performance of the air show.

We work with the fire department, police department, all of the emergency response people. We have a tabletop exercise, so you start getting all of that in line. You invite your aircraft in. You negotiate with hotels for rooming blocks and your rent cars, have those set up.

You look at what oil and fuel and oil the aircraft are going to need and so then you bring -- we have a group in the CAF that

we bring in that does fuel and oil for us. So you hire that. You need a sound system so you look at who are professional sound people. They can come in and with their speakers and do what we need.

Sound is important because you've got -- you're entertaining public. So they need to hear what's going on but also in the event of an emergency whether it could be weather. You need to be able for the public to hear what's going on and next course of action.

Do we all need move to the hangar. Do we have, do we have weather coming in? Is there hail? Do you want to go ahead and vacate or stop the show? So that's important for a good sound system. Then you have an air boss that comes in. The air boss is the one that actually -- he handles all the flying. He's the, he's the leader of the orchestra.

Your aircraft are the orchestra flying. He's the leader of it. So he says, you know, such and such aircraft, it's time, you know, taxi out, will take off from runway so and so. They'll do their performance. You'll need to land, dah, dah, dah, dah. So he will do that on stage, from the announcer stand. So that's where he'll be conducting the orchestra.

He will also -- his main goal is to have a safety brief before each day of flying. So that's a pilot briefing where he goes through all of the acts. When I say, acts, we're talking the performers that are flying. We'll have a schedule that says such

and such flies at 11:00, 11:15 and what aircraft are going to be flying.

So you can call them acts, you can call them a sequence. We follow the schedule and the timing will -- we have an estimated time that time will be whatever is safe to do. If an aircraft is running late, you know, starting up it'll put the timeframe. So we follow the sequence and not the time.

So the air boss is responsible for all that. He does his briefing telling them when they're going to fly, how they're going to fly. How they're going to fly is not -- I don't mean it like that. They have routines something like the Tora Tora Tora act has a practiced routine that they've been signed off by the FAA to perform so they know what they're doing.

But if you're going to have bombers, the big bomber aircraft flying. You can have the trainers flying. You can have the fighters. The air boss is going to coordinate with the different groups where they fly, what altitudes they fly and I know one of the biggest goals that is in the briefing is to brief on the ground, not in the air.

So he -- the air boss always asks that if you have -- do not leave this room with any questions. If you don't feel comfortable with something, come forward and talk about it. And so with all the different sequence or acts that are performed they'll do a sub-brief after the main brief to coordinate their timing, their altitudes.

If you've got several different trainers -- I know you don't know the aircraft but if you have, you know, the primary trainers, the basic trainers, the advanced trainers, they're all going to fly at a different altitude. And they're all going to get together and make sure they all know what altitude they're flying so they have a coordinate act.

But the air boss sits in on all of the briefings, the sub briefings as I call them. But his overall job is to the safety of the whole air show. Okay. Having said that. So we hire an air boss. I hire air bosses according to their performance and my knowledge of them.

Wings Over Dallas the air boss we had, Russell Royce, I've known him for a long time. He's probably, he probably air bossed at least ten shows from Midland prior to his Dallas shows. I approve of the way he acts, the way he handles things, his oversight.

So therefore we hired him for -- I hired him for Wings Over Dallas because I feel comfortable with his performance. I've also, you know, like I said, been on the field doing pyro listening to air boss and I've been at shows when Russell has air bossed those.

But so I know what his capabilities are and I know how he's, he's a perfectionist on what he does. But that's the air boss's role. I don't know where to go from there. You just keep -- you bring in the concessions, you bring in the porta potties, you

bring in the tents, tables and chairs, the dumpsters. So that's all the things you work on this whole time that you're developing a show.

Q. Okay. So let's go back just a little bit. I know you said you have to submit the application for waiver with the FAA. How far in advance do you do that?

A. They like it at least, at least 90 days advance.

Q. Okay. That's when they'd like it. When do you do it? And I'm sure it moves around a little bit but generally speaking?

A. We probably do 60.

Q. Oh okay.

A. I mean they'll accept it. We've done -- we have a -- I think our reputation proceeds us. We've done safe shows. They know our paperwork. They know our airspace. And so we're able to work with them. They come -- the FAA comes out to your air shows so they're on the stand, they're in the crowd, they've been here and know what we do.

We try to do it earlier but there's, there's just paperwork you have to put together. You have do an emergency plan of action, an incident, an incident plan. So you have to coordinate with all the different response teams. And sometimes that takes a little time to get all that.

We do a tabletop exercise with all of those to make sure everyone knows their job and their position if something were to happen.

Q. Okay. Have you ever experienced the FAA denying a waiver or not issuing a waiver maybe is a better way of saying it? Have you ever had that experience with any of your air shows you've --
A. Not in that aspect though they have asked for additional information and that's what we work to comply with. Sometimes the regulations change year to year and there's something added that didn't quite realize we needed something additional. But we add that in and we've always been approved.
Q. Okay.
A. All the air shows I've worked with have been approved.
Q. For Wings Over Dallas last November did you have to resubmit anything or provide more additional information for the waiver that you can recall?
A. I provided a second sheet of some additional information that just stated our safety, what we'd plan to let them know we had the tabletop exercise. And just clarified a few points. I can't remember exactly what all I clarified at that moment but they would -- we would it have it on the -- with our waiver packet. All the information that we submitted will be there.
Q. All right. So I love how you say the air boss is -- has an orchestra, you know. You said it so much better than I ever will so I'm not even going to try. But I know you also said you have tabletop exercises and emergency response plans, incident responses, all that. Is the air boss involved with that as well, or is he -- is the air boss not at those?

A. I was trying to think if -- a lot of times the air boss is there or you can do a zoom meeting or they can be on the phone listening in.
Q. And I know it's been a while.
A. I know.
Q. Do you remember for this one if Mr. Royce was on any of the calls, in person?
A. I know he was not in person. And I'm sorry, I don't recall if he was on the, on the phone or not.
Q. I don't know works perfect sometimes.
A. I don't know. Yeah. I just don't recall.
Q. And that's okay. Perfect. No problem. So we'll get into the air show side and air boss and all that in a little bit. Let's talk about emergency response plan for just a little bit. I know you guys had different -- I shouldn't say I know. I assume you guys had different scenarios for your incident response, tabletop exercises. Did any of those scenarios include aircraft accidents?
A. Yes.
Q. All right. What kind of an accident was those scenarios? Was it fatalities? Was it just off the end of the runway? Kind of help me out understand that.
A. No, it was -- we did three different scenarios. One, if an aircraft came into the field or crashed into the field and there were no injuries. We talked about one if there was a lot of fire

how to respond to that. But we also did one that was a fatality, multiple fatalities on the ground.

And so in those the CAF has their own response team or their package that we say designate who is going to go to the command post, who's going to talk to the different people, the media and who's going to handle the crowd lines. And then the bigger response team is all of your emergency responders. It really -- it comes out of our hands, it's in their hands.

We have firetrucks that are always staged throughout the grounds and that's briefed in the pilot briefing each morning. And we have the police officers that are, that are on the ground as well in case -- and it's -- when we went through the emergency response plan or the tabletop it was if this were to happen what roads do we shut off, who's going to respond to where.

And the fire department comes out is the first responders and they take care, take care of everything from that point. But the command post is here on location with multiple personnel and they're ready to do their job. But everyone was able to say, you know, what would you do?

What would you do? What is your response to this? So we would block off the roads. We would do this. It was what if we had to come in through the back? What gate are we going to use? What's the code going to be. Got that from the airport. The airport is there as well, airport operations, tower. Everyone's involved.

Q. So and I know everybody develops these plans. Knowing that they could happen but praying like crazy they never have to enact them. But looking back on it, because you did have an accident during an air show, how did your plans work, in your opinion even? You know, were they what you -- did everything go perfect as you had practiced?

Was there things you were like, we really didn't practice that. We should have thought about that. Kind of help me understand. I'm just trying to learn from you guys.

A. I felt -- I was very pleasantly pleased that things when off actually without a hitch. Everyone knew where they were supposed to be. I think you take that deep breath and then you just go into the mode where I have to separate myself from the incident and do what we planned to do.

Q. Okay.

A. Which is a very difficult thing to do. But I was very pleased with the CAF staff doing what they needed to do, control the crowds, you know, keep everybody calm. And then the fire department, they're there. They're -- they were, they're there. They did their job. I couldn't have asked for any better from the, from the department.

Q. Okay.

A. Yeah. Superb.

Q. Well and that's, that's great to hear because, you know, you don't like to see tragedies.

A. I don't know what their reaction time was but I'm telling you it was within the limits of a minute. And that's what we stress through the -- we're member of the International Council of Air Shows, which is the -- kind of like the ruling body of the air show industry.

They handled not only air shows and performers but anybody that has anything to do with an air show. And so we get together once a year. And so we try to set standards that are very high and the emergency response time to get to an accident, incident is one minute.

Q. Okay. Wow, that's, that's great to hear. I'm glad it worked as prescribed.

A. It did.

Q. There might be little things that may tweak later. I don't know but it sure sounds like it --

A. Well in the hot wash afterwards I believe that everyone felt like they did their job. And it showed on as they were in action.

Q. Okay.

A. But that's a time you -- even if you have a little tweak for yourself or for somebody else, that's the time you put it out there. It only -- if you can't learn from yourself, you don't need to be out there doing anything.

Q. Right. No. No, and that's great. So now let's start getting into the air show part. Let's talk about the air boss. I know you've said you've worked with Mr. Royce on several other

occasions. What if I came up to you and said hey, I'm an air boss. Can I do one of your air shows? What would -- how would you vet me, or would you? Would you be like, I don't know you from anybody. No. Kind of help me understand how that goes?
A. Probably just have to tell you I'll make a note of that but I don't know -- I've got to just look at who I'm hiring. Or if I already have one hired I've already hired someone. But to be honest with you if you just come up to me and said -- I've had that happen. I'd love to do your show. Well I appreciate that.

But if I were looking for another one I would take a look. I'd want to look at their history. I want to talk to other air shows that they've been through. I want to talk to pilot that have been flying during their shows. I want to know if they are a quick response, if they're organized, if they can make quick decisions.

I need to know the history. I just don't -- it's too big a deal. You have to trust the people you hire because of the responsibility they have at an air show.
Q. All right. So have you ever had another air boss besides Mr. Royce or has he always been the air boss that you typically or always use?
A. The other air boss that I had in Midland was actually Ralph Royce his father. So Russell grew up in the air show industry during the Midland air shows which have gone on for 30 -- this year will be 32 years of air shows.

When he was old enough, 18 or maybe younger, I'd invite him to come out with his dad because I knew he wanted to get into the business so he could learn firsthand so he's always grown up with that.

This year in Midland, I did hire a different air boss. It's usually been Russell but because of things, ongoing investigation, we just felt the need to remove him at this point in time until everything's resolved. And I think, you know, insurance-wise for us it was something that we kind of needed to do. But I did have to hire another boss.

So the one I hired I have been to shows that she's conducted as air boss. And I've been pyro field at several shows that she's done. So I've been to the briefings. I've listened to her. She's -- I've -- I looked into her history. She's a retired military, Air Force, air traffic controller. So I liked, I liked what I saw.

I like what I heard. And I liked the credentials behind it. Of course they have to have to have a letter of authorization to be able to air boss.

Q. Is that something you request when you're negotiating with them, talking with them, getting them to do an air show for you?

A. Yes.

Q. You request to see their letter of authorization?

A. Absolutely.

Q. Okay. And what if they say, oh I don't have it yet? Then

kind of walk me through it. What do you do, do you say then I can't --

A. If they don't have it I can't hire them.

Q. Okay. I just wanted to make sure I understood that clearly.

A. Yes.

Q. So okay. Perfect. And I know it didn't happen here. It doesn't sound like it. But what happens -- I know you've hired a new air show boss or air boss. But what happens if the air boss you hired the day of the event comes down with, you know, some nasty stomach bug or appendicitis or whatever and they can't do the air show. What do you do? I mean is there a contingency plan for that?

A. No, that's a scenario I haven't really thought of.

Q. Oh sorry. I don't mean to bring up stereo type -- you know -- scenarios.

A. No, no. That's fine. That's a good thing to think about. If it's the day of the show, yeah, I think you'd have to think about if you're going to cancel or not because that's a -- you can't just throw anybody into that situation.

Q. I wasn't sure if you had an air boss in reserve or --

A. Yeah. There are lot of times we do have two people that come out. You can have an air boss that's there and then you can have somebody that's up in training. I know we've done that quite a few times. Even at the Midland show and the Dallas show. The Dallas show, Russell's there but he had someone that was working

his way up to air bossing and he had to do so many shows before he'd get a letter of authorization.

In that case we would have used him for the backup. But day of the show, I would have to cancel the show. There might be another answer for that but if you're asking me right now I do not have that answer.

Q. And that's okay. I told you that was okay. You know, but I --

A. You can't have an air show without a qualified air boss, period.

Q. All right. No, that helps. I just -- I think of weird things so forgive me in advance.

A. It was a good question though.

Q. So the air boss -- does he set up the act? Right? Did I get that correct, the air show act itself? I'll call it an act, sequence.

A. Yeah. That's good. That's good. We make a list. We make a schedule of how -- of what we would like to see fly when. And he will tweak it as far as the timing on it whether is your act going to last six minutes, 11 minutes. We try to keep the action going and he'll write that sequence for the schedule.

And if he think -- if he'll say, well, I think maybe you have too many fighters up here. Maybe you need to throw in something slower, you know, to keep the action going for the crowds.

Q. Okay.

A. Because we're -- you're in the entertainment business when you're putting on an air show. It's for the, it's for the public.
Q. Okay. So you create the, we want to see these planes flying. Here's our -- do you say here's our wish list?
A. Here's our wish, here's our wish list. Yeah.
Q. Okay.
A. What do you think? And then he'll create the time hacks that need to go with them.
Q. Does he send that to you in advance of an air show, the time hacks?
A. Only the night before because you do have to wait and see who actually showed up. Aircraft are temperamental and they might not make the show. So then therefore that's going to cut out a whole sequence.

And then when you get to that briefing that morning we have a copy for everyone and it could change depending on -- it could change depending on the weather, how heavy the winds are going to be. You know, small aircraft can't fly in a lot of wind. So you -- the air boss looks at that as well.

You may have to either -- what we're going to call scrub that. They don't fly. Or something needs to fly earlier in the day when it's calmer. So we make those decisions on the fly that morning at the briefing and then brief the pilots as to what their performance will be and when, what time.
Q. So and I'll back up just a little bit. I know you said you

submit your wish list. You know, we'd like fighter to fly. We'd like bombers fly. And part of that wish list you'd say, okay, we'd like the fighters to fly but we'd like them to go by stage center or air show center five times or six times. Or we'd like them to do this or do that.

And the bombers, this is what we'd like to do. Do you do that or you just say, here's our airplanes, here's what we want, here's what we hope for the order?

A. Typically you're going to have aircraft go through three to four maybe five times depending on if you have a little extra time in your schedule you could say, could you make one more photo pass. Acts that have multiple aircraft in it, they brief that during pilot brief.

We're going to go up in this order. We're going to descend in this order. Now here's what we're going to fly. We're going to fly fighters here, we're going to fly bombers here. We're going to make silly passes. And then they'll, you know, we're doing a, we're doing a reenactment because we're going have explosions on the ground so we're reenacting World War II in that aspect.

And then they'll come through for photo passes for the crowd where they can bank. So that's, that's how that works but if, you know, if we needed a little more time he could ask them to come through one more time for a photo pass.

Q. Okay. So you guys don't say, we want them to go through --

A. No.
Q. -- the center so many times and then a photo pass? You guys -- you leave --
A. No, because --
Q. -- that to him?
A. Because an experienced air boss just knows how many times they should come through without boring the crowd.
Q. Okay.
A. You know, you only want so much and then we're -- but we're on a schedule, so you fly them and then you land them and the you go with the next one.
Q. Okay. Were you part of the pilot briefing the morning of the event?
A. I was there.
Q. Okay. Was there any concerns brought up that you recognize or remember, recall in that morning briefing by any pilots, by any, by anybody?
A. No.
Q. Okay.
A. And I looked. I will tell you to be honest, I was a little bit in and out of the briefing because I had so many other things on the ground to, you know, get a phone call and work with. But I was there for, you know, the majority of it.
But I do know that all the pilots were given a chance to speak up if they saw, if they had any concerns or didn't

understand what their briefing was. But then again there's always the sub-briefs afterwards for each of the sequences or the acts.

Q. Are you part of those sub-briefs at all?

A. No, I'm not.

Q. Okay

A. There's not a need for me to be there because I'm not in the airplanes flying.

Q. Okay. All right. You've done lots of air shows. So I'm asking for your experienced opinion. How did the mood, for lack of a better phrase, how did it feel in that briefing that morning? Did everybody feel yay, let's do this, or was there -- kind of help me understand. How did it feel? Did it feel any different than any other air shows?

A. No, it did not seem any different. Everybody was there to put on a show for the public, thrilled to be there. I mean you -- it's all -- it's good camaraderie and the mood is good. When the air boss is speaking everyone in the crowd, or all the pilots and any ground person that are there are attentive to what the air boss is saying.

Again he's conducting the orchestra and these are -- you're in the pits here with your instruments but your instruments are actually on the flightline. But you're paying strict attention to what he's saying so you can perform to the best of your ability. And saying that looking at all the pilots in the room and the ones that were flying our aircraft, they were all experienced air show

performers.

This was not a new experience for them. They were seasoned professionals in the industry.

Q. Okay. So the folks in the room you -- I don't want to say you knew them all, but I assume you knew --

A. I know a lot.

Q. Okay. No new faces?

A. There's, there's new. There's always new faces. But the majority of the aircraft pilots are recognizable to me because I've been around for a long time. Now if you asked me to sit here and name who all was there, nope, cannot do it.

Q. You can tell me names and I'd be like, okay, great. All right. And I know you said earlier that part of the air show -- air boss's duties during his briefing is ask if there are any questions. Do you recall if he did that?

A. No. I can't recall.

Q. Okay. And that's okay. I don't know. I can't recall.

A. And he does have a slide presentation going through the entire briefing and I know, I know for a fact that's always one of the slides, any questions.

Q. Okay.

A. But as far as me just, no, I can't.

Q. Okay. Nope. I know you were multitasking or probably multiple phones up to your head, maybe. I don't know. But I get that. Do you remember, is there an altitude limit for your air

shows? I mean I assume the FAA said they're not going to give you from sea level to 60,000 feet. I assume that's what they do?

A. Yeah. I was trying to think. Yeah, we have an altitude --

MR. LASCHE: To class probably.

MS. LINEBERGER: Class, yeah, class space because class -- you're right. Thank you for saying that. Because we're in the DFW area we can only go a certain altitude, period, because there's other airliners that fly. But we don't -- most of the aircraft we have do not even touch that max. They're all lower levels.

MR. ETCHER: Okay.

BY MR. ETCHER:

Q. Just out of curiosity do you remember what that altitude was?

A. For the air space?

Q. Yeah. Do you remember how high you guys could do a little cylinder went up? And if you don't --

A. No. I'd have to --

Q. I don't always --

A. -- look at the waiver.

Q. That's okay.

A. I just don't remember.

Q. I just wasn't sure. Since you'd done it a few times I thought maybe it's something just in your brain.

A. Yeah. It probably just -- yeah. It's, it's not there.

Q. Yeah. No, it's all good. So now let's kind of fast forward

a little bit to the air show time. Where are you during an air show. Are you up with the air boss? Are you running around doing 10,000 tasks.

A. Yes. All of the above.

Q. Okay.

A. I generally go up to the air boss station, stand several different times and just watch performances. But no, I'm, I'm everywhere. I don't, I don't have a single spot. I can't just sit and watch. There's, there's too many moving pieces.

Q. I imagine there are. Do you remember -- and if you don't, I don't know works -- where you were at the time of the accident?

A. Yes. I do. I was down towards the what we call the kid zone, the discovery zone where we had all the kids activities, kind of by where we keep our golf carts. So here's the show line and I'm back around the corner here.

Q. Okay. All right. So probably you didn't -- I'm assume you didn't see.

A. I did not see the actual collision.

Q. How were you notified of it?

A. I heard a noise.

Q. Okay. Okay.

A. I just heard something and it wasn't right.

Q. Okay.

A. I just got in my golf cart and went out there. And then I saw people looking and I said, something's happened. So then the

firetrucks are rolling and I went down to the end where the action was taking place.

Q. Okay. All right. Prior to the air show you worked with Mr. Russell several times, the air boss several times. Did -- in your opinion how did he seem compared to other air shows, normal?

A. He seemed quite normal to me.

Q. Okay. Nothing that peaked your interest I assume?

A. Nothing at all. He had all of his material there. His attitude, his demeanor, his body flow was just like it always has been.

Q. Okay. Now I understand he had an observer with him?

A. Yes.

Q. How was his observer? Have you ever met his observer?

A. Yes. Yes, I have.

Q. Okay. Has the observer ever done any of your air shows in the past? Or you just saw him --

A. No. He's been there. He's been to the Midland show probably three different times. And he was here this year at the Dallas show and I believe he was here last year as well. And having said that he now has his letter of authorization to be an air boss. And I have been to a show where he did air boss.

Q. Okay. Did they seem to be working well? I don't want to say working well because they're not really -- I guess they're working together but maybe they're not working together.

A. I feel like they have a very good relationship. Still,

Russell was still teaching Sam (ph.) not -- I mean he's teaching. That's what they're there for because Russell had far more experience and if he -- I didn't, I don't know that he said it during this time but know at the Midland show and I've been up there, this is why we do this, this, this as a teaching.

Q. Okay.

A. But the observer doesn't have a say so in what's going on. They're there to learn but they're not running the show.

Q. Okay. So where the air boss -- is it a platform? Is it a stand that he's on when he's, when he's --

A. We have a --

Q. -- conducting the orchestra?

A. We have an aircraft stand. Is that what it was?

MR. LASCHE: Air stairs.

MS. LINEBARGER: Air stairs. So it's a big, tall platform, something you'd get up to to work on aircraft. So it's a big -- it rises above so he's got a nice view of everything going around without any obstructions.

MR. ETCHER: Okay. That's what I would have --

MS. LINEBARGER: And it's show center.

MR. ETCHER: Okay. That's what I -- it was for no objection.

MS. LINEBARGER: Yeah.

MR. ETCHER: So I appreciate you -- you must be a mirror seeker with the items here (ph.). I know we've been talking for a good 45, 50 minutes. And you've got to be getting tired of

looking at me. So I'm going to pass it on to my colleague but before I do, do you guys need a break? Anybody need a break?

MS. LINEBARGER: I need to go to the bathroom.

MR. ETCHER: Absolutely. Let's take a break. It's 12:37 local and we're off the record.

(Off the record.)

(On the record.)

MR. ETCHER: And we're back on the record at 12:41. Thank you again for talking with me.

MS. LINEBARGER: You bet.

MR. ETCHER: I'm going to pass you on to Sabrina. She always asks the really smart questions.

MS. LINEBARGER: Okay.

DR. WOODS: I'm actually going to go rewind all the back and that's kind of what happens when you, when you come next is, you know, has he's talking, I have like, oh, that's a good question, that's a good question and just fill in some blanks.

BY DR. WOODS:

Q. Do you happen to maintain right now any FAA certificates or ratings of your own?

A. No, I do not. Not FAA.

Q. And then when you're not being a chair for an air show, do you have, do you do other things for Commemorative Air Force?

A. I belong to one of the units of the Commemorative Air Force. Under the Commemorative Air Force, CAF there's, there's wings and

squadrons and I belong to the one out in Midland, Texas, the High Sky Wing. So I do things for that. I've been the Wing leader for a lot of years. I'm not this year. But I am one of their fund raiser people for that.

Q. And is that a largely volunteer position or is that --

A. It's all volunteer.

Q. -- compensated role?

A. It's all volunteer. So I'm retired so I don't have a full-time job. I live and breathe CAF.

Q. That's fine. I just wanted to know if there other things since there does seem to be sort of an air show season and if you did other things outside of that season. When you are functioning in this capacity as a chair who would you consider -- who is your report to person? Who would you consider like your supervisor is in that instance?

A. We actually have a committee and as far as the Dallas air show, I would -- if I had a question on something I would go to the higher people of the CAF because it's basically their air show and say, what do you think about this? Do we, do we want to bring these aircraft in? Do we want to -- how do you want to conduct this business?

Q. So I'm going to go back to that because you use the term, we, a lot. You say like we build a plan for an air show.

A. Yes.

Q. Who is this, we? Who -- for the record who are we talking

about?
A. As well as the executive staff for the Commemorative Air Force and they designate an air show committee, which is generally the president, vice president. We have maintenance operations, directors.
Q. Okay. So going back to part of your job is to hand essentially the packet of waivers to the FAA, how would you describe your relationship with the FAA?
A. I think --
Q. How does that work?
A. We have a good relationship with the FAA. If you go online and look all of the rules and regulations that you need to fulfill and you've got your document that you print off from their website that that's what you fill out, the specifics?
And then as you submit them, and if they, if they have a question on something a little bit more detailed, they just give us a call and -- they'll give me a call and I'll say, okay. What are you looking for? we'll get that. And then we just submit the additional information as needed.
Q. What if you have a question, do you have a person there that you can contact?
A. Whoever is assigned to our area. It's not -- it doesn't have to be the same person but yes, we exchange phone numbers so we just pick up a phone and call them. That's, that's the best way to communicate.

Q. And --
A. And if we, if we can't get them on the phone, send them an email and if it's more than an email can handle, we do phone calls, phone conversations.
Q. And do you -- has that met, been met with success? Do you feel like they're receptive to those phone calls and emails?
A. Oh yes, I do. Yes.
Q. Okay. So kind -- similar questioning but with ICAS. Can you describe your relationship with ICAS?
A. I'm a member of ICAS through both the Commemorative Air Force, through the High Sky Wing air show in Midland. We have a membership there and then our pyro team, we have a membership with ICAS as well. So I go to the convention once a year. It's every December and I've been going to that since 2000.

So I mean we're -- I'm involved in it because they have lots of breakout sessions which are learning sessions. And that's, that's where you learn. You've got the people in the industry in those rooms and that's your one on one with each other.

If you have a question about something that's not going right for you, ask what they've done at their air shows. And it's, it's very -- it's a wealth of knowledge.
Q. So going back to the committee and you're preparing for Wings Over Dallas for instance, which is unique in the fact that it's, it's all Commemorative Air Force product. Correct?
A. Yes.

Q. For that particular air show. Is that the same for Midland's?

A. No.

Q. Okay. Well get to that distinction in a moment. But so you're preparing for Wings Over Dallas and now we're -- the Commemorative Air Force assets are being assigned. Is that your function, is that the committee's function, who actually picks what's going to be at the show?

A. We'll do that as a group. We'll look at that as a group. What theme do we want for the air show? If we're doing a Navy theme, then we want to look at a lot of the Navy aircraft to come in to fulfill that. And then what other planes do we need as fillers so to speak to keep a good flow going.

But for the most part CAF has such a wide variety of aircraft and remember these aircraft are assigned to wings and squadrons so you have to make -- you have to invite them in, see if they have a pilot available that weekend, if they have no other commitments to come through.

So once we do that we pick -- we decide who we're going to have come in. In the last couple of years we had designated one person that actually sent emails out and made the contact and then cc'd everything to me, or put me on, as a cc on it. So we know who was being invited.

And then that person handled the communication, told them, we're inviting them in. We've got X-number of rooms or rent car

or give you this many, this many gallons of fuel, can you come or not come?

Q. Is there any performer that you guys are like if at all possible this will always be there?

A. Yes. That's going to be some of our, I'm going to call them marque aircraft, which is going to be the B-29. There's like two of those flying in the world. And that happens to live right here in Dallas at this facility.

So that's one of those that's always going to be here because we can. It's the queen of the fleet. And you'll all be -- and you'll always have like P-51, Mustangs. Very recognizable to people. It's a crowd pleaser, so you're, you're going to have things like that.

And your bombers, your bigger aircraft. You just don't see a lot of those around and so we'll always have those.

Q. How does that differ for -- because you said -- you sound like you've been a chair or a director for Midland, that you actually started there, correct?

A. Yes.

Q. How does it differ for an air show such a Midland where you are inviting other outside of Commemorative Air Force assets in?

A. It's the same thing. You look at -- you have to have budget. You look at your budget. What can I, what can -- what have we designated we're going to spend on performer fees, fuel. But we invite those in with what are we, what are we trying to relay to

the community.

Are we -- we do a variety because we want to keep our -- the public entertained so we'll have World War II aircraft, we'll have civilian aircraft that are aerobatic, you know, the fast movers. We call them flipflop acts. But we -- you look at it the same way. What is your goal? What do, what do you want to bring to the public.

Q. In terms of from your point of view, from your job in terms of complexity executing, which one is more complex, a Midland show or a Wings Over Dallas show? Or am I totally apples and oranging you?

A. With the Dallas show you actually know most of the players, most of the pilots, most of the units, so you have a connection with them. When you're hiring a different civilian acts, you may have seen them perform, you know, their history, you invite them in.

But as far as complexity it's -- there's no difference. It's -- you put -- you do the same amount of work in either one. It's all the same playing pieces just different aircraft. I don't think I'm answer your question the way you want.

Q. No. You are perfectly but I'm going to expand on it.

A. Okay.

Q. So as the chair then because there maybe that lack of familiarity in a show such as the one at Midland, how do you insure like, yep, we want that performer. They're good people,

they're a good fit?
A. Well I have the experience of going to lots of air shows because of the pyrotechnics so I see how performers act. I only want to hire people that I know are going to perform well. And that have the good safety record that you know will take instructions from the air boss and what you'd asked of them. We hire them to come in. We pay them so we do have expectations.
Q. You've named a few of them. Can you expand on what those expectations are? For -- let me back that up actually. For all performers, what are the expectations?
A. I feel like pretty much what I just said. They need to be a good safety record, they need to be performers that are knowledgeable of their aircraft, knowledgeable of the airspace, knowledgeable of how they interact with other aircraft.

It's -- if I were to bring a newbie -- I'm going to call it a newbie performer in as an acro, I would have them only fly by themselves, not with a group. So you have to look at the qualifications. Also, you know, in fast moving airplanes, what altitude.

They have cards where they can fly high, medium, low. Everyone starts out a higher and as you progress you get a lower card to fly your aerobatics. And they're all, they're all ruled by that FAA as well.
Q. So in your experience because you are highly experienced if a performer is in a situation where they're flying with others who

is ultimately responsible for that dissimilar performing aircraft being in the same box at the same time? Who works out --

A. Well you have --

Q. -- what they're going to do?

A. You have a flight lead, whoever's going to lead. But you've already briefed on who's going to fly where. They all have, they have formation cards so they can fly together. That means they've practiced with other aircraft. You can't, you can't fly them together if they're not formation rated.

If you have several aircraft flying close together the you'll have some aircraft flying high. Those are not formation rated. Therefore they have to keep a distance. But only formation rated, that means they have practiced flying with others.

So you have your lead, then you have the wingman off of it. They're responsible for looking to see where other aircraft are, keeping their eyes peeled and their head on a swivel.

Q. I'm going to come back to that in just a moment, but go back -- going back to the brief where a lot of this is essentially coordinated, you've got -- you're there. You've got the pre-brief. Who's ultimately responsible for the execution of the pre-brief?

A. The air boss.

Q. Okay. And --

A. And he does that through what he says and slides, presentations that shows the airfield, the performer box, the

aerobatic, the box for the -- what they're going to fly.
Q. Okay. And in your experience, has that ever changed from what's briefed in that pre-brief to actual showtime? And if so under what circumstances might that change?
A. It would change if an aircraft couldn't start and wouldn't be part of the performance. Then he's going to tell them this air place not going to be there, we're going to go ahead and fly as we, as we talked about, as we briefed, fly as briefed.

And things -- that's a difficult question you're asking because you have to depend on the pilots that are flying as well to know where they, where they should be flying. That's their job.

I mean the air boss can give you a brief but when they get in the air, he can't control their flying. He's here on a platform to say, you know, if you're too -- if you're flying too close the crowd, you need to maintain your 500 foot line. He do things like that.

Or where you've got too big of a gap, he might say, you know, move it up a little bit because he can see what's happening. But it's the people flying the aircraft that have to look at who else is in the air with them. That's their responsibility.

And as I said, I believe everyone that was flying in our show at this point in time with the accident they'd all flown multiple, multiple air show performances.
Q. I'm going to step away from that just for a moment and go --

A. Okay.
Q. -- and back up a little bit more where we talked about -- Shawn talked about kind of the lead up and what you do. There's so much that you do leading up to the, you know, now it's air show time and what goes into that and some of the meetings that you have and the tabletop exercises that you have.

If the air boss isn't on the phone or isn't available to be that person, how does this information get to the air boss? Who is responsible for that?
A. The air boss knows exactly what their position is. They're not going to, they're not fighting fires. They're not doing anything like that. They will have the -- one of the fire department on the stand if there is an accident then the fire department's there and he'll look at him and say, Raul (ph.) -- and he usually doesn't have to say that. They've already commenced.

His job is to conduct the airspace. So if there's an incident, something happens and a plane's down, he immediately starts diverting all the aircraft to the safety zone, wherever they briefed that their safety zone would be diverting them to the different airports around because we don't want anybody landing back here if -- with an incident on the ground.

So he immediately goes into that mode. So he's doing what he's supposed to do. The ground is the fire departments, police departments, all the emergency personnel if there's an incident.

But the air boss doesn't act on that. He's got to get all the aircraft safely back on the ground wherever they may be.

So he's got to know in his head this aircraft is big enough. It has to land over here. This has to land here. And then he quickly -- he has knowledge. He worked on his knowledge prior to the show as to what all the diverts are, divert airports and he briefs that.

But then he tells them exactly where to go. So again he's saying, okay, you go here, you go here. You make a left turn, dah, dah, dah. Looking at what's out there where they are positioned in the sky, he gets them back on the ground safely.

So if he's not at the tabletop his job is not to be a rescuer. His job is to get them where they need to go. That's part, that's his exercise.

Q. And ultimately who would be responsible for training the air boss in that capacity? Is that something that CAF provides or that's provided elsewhere, from elsewhere?

A. When you ask me that I -- air bosses train air bosses. I mean they have to have certification. But we don't train them. I don't -- I'm trying to figure out how to answer that. So give me just a minute.

As far as ICAS, International Council of Air Shows, I don't know that they have specific rules written. I don't know that answer because I'm not an air boss so I've never delved into that. But we don't have any control over that. That's why you hire an

air boss that has a letter of authorization and you've got some history with him. So you know how they perform in a -- in any situation.

Q. And I recognize that ICAS sets forth the rules for the ABRP program.

A. What is that?

Q. I'm sorry, air boss recognition program.

A. Okay. Thank you.

Q. It's only been in place for a --

A. A few years.

Q. Three years.

A. Yeah, it's, it's --

Q. Yeah. And --

A. They just stepped in to help regulate it better. It's for everybody's good.

Q. Yep.

A. For the industry it's good.

Q. But as air show producers though how much to you rely on ICAS saying, yep, good to go. Here's your person. Here's a person. Versus what you want for yourselves. That's actually what I'm trying to get to and I'm doing a very poor job of it.

A. No. I have to hire somebody that I feel comfortable with, that I feel totally safe turning everybody over to -- because you recommend them and ICAS recommends them doesn't mean I'm going to use them. I will use a certified air boss but it's going to be

one that I feel comfortable turning everybody over to.
Q. So as the person who works this aspect of the air show what are your quality control metrics that are in place for after the fact to make sure that, yep, this is still a good performer to use, yes, this is still a good air boss to use?
A. I just evaluate their actions during the show, their performance, their abilities, their attitudes. Attitude is a lot of it too.
Q. But arguably and you said so yourself and we totally agree, you're running around doing a lot of things.
A. That's correct.
Q. You're taking into, you're taking into account a lot of things so --
A. All right. So you have to rely on other performers opinions as well because they're in closer proximity. If someone is out of line, out of action I'd like -- I need to be told that and I can't, I can't -- my saying is, I can't fix it if I don't know it's broke. And I feel the same way.
If we had a performer that is not getting along with anyone I need to know that because I don't want to have them back. I think that's a troubled situation. Therefore if someone sees something same thing, they need to report that. And we do. We do say that.
And we do have channels that can -- we can go through to communicate it. I don't have to know who said it, I just need to know what's happening because therefore I can make adjustments to

what I do next, even the next day.

Q. What are some of those channels that you have available to you?

A. I know people know that they can directly contact me. A lot of times if there's a performer problem they will go to the air boss if they feel like they didn't fly according to the mission, their briefing, they'll go to the air boss.

Usually if that's the case the air boss is going to come tell me because we hired those people. I know that CAF you can always call one of our directors officers staff up here and they're always open to -- I don't want to say complaints.

But, you know, if there's a problem we need to know. And then if it's some has people that were flying in a show that I'm producing, then I expect them to let me know.

Q. And this is tough, you actually hit it on the head when you said that you don't know what you don't know. Do you ever actively solicit and look for information given the chance that there are some people who might be reluctant to bring what they know to your attention?

A. I would only do that if I felt there was a problem. If I suspected there was a problem somewhere I would ask around. But if I didn't know -- and something you also have like at the Midland show, our airport operations people with Midland International, if they see something going on because they're observing too and I know that the airport observes here, they'll

let us know if they see something that's not.

But the FAA is also right there. If somebody's flying erratically or not in the proper interest of the show, they FAA is going to reach out. They're going to reach out directly to that person and then they're going to come to the waiver holder, which would be me, and say this is what we found.

Q. And this is speculative this question I'm about to ask but if the accident had not occurred would it have been a foregone conclusion that you would have used the same air boss for this coming Wings Over Dallas?

A. That is correct. I would have use that air boss for the Midland air show coming up in September as well.

Q. So there is no consideration to look left or right?

A. I've never had a reason to.

DR. WOODS: I'm going to mull over that just a little bit. Thank you so much, Shawn.

MR. ETCHER: Thank you. Everybody good? Need a break? Doing fine.

MS. LINEBERGER: I'm good.

MR. ETCHER: Okay. Great. You're good now but Bob's going to ask questions next.

MS. LINEBERGER: What?

MR. HEATH: No. I don't have any questions.

MR. ETCHER: You don't have any questions. All right.

MS. LINEBERGER: Let me, let me stare him down.

MR. ETCHER: Yeah. Well I'm sorry. You're stuck looking at me again so my apologies again.

MR. HEATH: I'm learning from Gena. She's done such a good job. I'm just soaking it up here.

MR. ETCHER: My brain is about to explode I think. So I'm wondering if we have less questions because there's only so much I can absorb. So I appreciate it and thankfully recording I can relive those transcripts many times.

MS. LINEBERGER: True.

MR. ETCHER: So it helps me sadly later on to go, I forgot about that. So thank you.

BY MR. ETCHER:

Q. I've got a few questions and I kind of want to dovetail just a little bit off of what Sabrina had there at the end. Have you ever had the FAA first of all come to you about a problem they've had in an air show? Bring anything to your attention?

A. Yes.

Q. How often has that happened to you? I mean I know you've been doing air shows for several years so --

A. I want to say probably a quarter of the time. It's always been things simple like they weren't flying their lines. But I haven't had anything that was out of the ordinary at all.

Q. Okay. Okay. So for the Wings Over Dallas air show the FAA had their inspector that was in charge out here. Have you ever worked with that individual before?

A. Last year.
Q. For that last -- for the accident day, Wings Over Dallas, have you ever worked with that FAA inspector before?
A. It was the same one we had the year before.
Q. Okay. So you've worked with him and --
A. Yeah.
Q. Okay.
A. I can't think of his name at the moment. But they always bring several people out. The one I worked with is the one that I do the paperwork with. That's the only one that I really feel like I have a connection with. But they bring multiple people out to look at different aspects of it, whether it's, you know, inspecting the aircraft, looking at the pilot's credentials, making sure everybody's up to speed on what they need to be.
Q. Have you ever had the FAA come to you and say, hey, looked over these pilot credentials and they don't have the SAC card or they don't have the right certificates or anything. Have you ever had that?
A. I've had it happen one time when they didn't have the credentials that they needed, a pilot, so we had to stand them down from flying until they could provide such. And if they provided it then the next day they flew the show.
Q. Okay.
A. They just didn't have everything they needed on the aircraft, you know, their paperwork. Somehow it must have flown out or

something.
Q. I'm sure that happens a lot. No problem. So I know Sabrina was talking about if you had a concern you saw whether it was a performer or an air boss what would you do, things like that. And just for my clarification in my brain, I think earlier on you said you were an ICAS member. Is that correct? The International Council of Air Shows, you're a member of that?
A. I'm a member through the organizations.
Q. Okay.
A. Personal member -- well am I -- yeah, I am because yeah, my name is listed as well that is I'm listed under the pyro team, the CAF and the Midland Air Show because we joined as well.
Q. Okay. Now I know you said that they kind of stepped into the role to kind of -- I going to say pull everything together, kind of help create safety, top whatever. Did they have means for you to register concerns, do you know? If you had a concern with an air show, an air boss. Let's just say an air boss.
A. Yes.
Q. Do they have a means for you to go to them even?
A. Yes. I mean you can go directly to the president and you can -- if you have a complaint or a concern, you're certainly -- he's always welcome to listen to that. He welcomes you to call him and he'll listen to your concerns and as far as action goes it depends on -- I have never had to do that.
Q. Okay.

A. But I know other people that have. Then they look at it, and you have subcommittees like the Council has a committee that does the, like the FAST cards. I don't know.

MS. LINEBERGER: I'm not using the right --

MR. HEATH: Is it the SAC cards?

MS. LINEBERGER: Yeah. Just the SAC cards. I know we have a committee that's the pyro committee that oversees that. You have somebody that oversees the kind of liaison for air boss. I don't know if air boss the pilots.

Because I know that they tried to get people that are involved in that aspect of the air show to be a representative. I think that is to get their knowledge and so again and their opinion.

Q. Now I know you've done -- been around air shows for a few, a few times. If you saw a safety concern and you're not the responsible person, but you saw a safety concern, is there a means through ICAS besides just pick up the phone and call the president? Is there an official means of you to air that concern, report that concern, do you know?

A. As far as a form you'd fill out or just -- I would --

Q. Some kind of process that's -- whether it's a form or -- I don't know. I mean people think outside the box all the time so there could be new ways that I don't know.

A. Is all I know that we would do is just contact them and let them know that we see a problem here. Could they look into it and

identify if it's just with this air show, other air shows.
Q. Okay. Okay. So and that only way you know is to pick up the phone and call?
A. I'd call or email.
Q. Okay.
A. Depends on how serious I felt it was.
Q. And that would -- the caller email would be to the president then? Is that --
A. That's who I would call.
Q. Okay. Just wanted to make sure.
A. Yeah. That's, that's who I'm calling.
Q. That's why I'm talking to you right now as you said. That's okay. Perfect. If -- you're responsible for this air show and if a pilot was doing something that you noticed, that you're like, and it's a CAF pilot, what is your -- I don't want to use the word obligation, but what do you feel like is your responsibility of how do you address that or can you?
A. Absolutely.
Q. How so?
A. If I think something's not right, I'm going to contact the appropriate CAF staff person. The paid staff because we regulate the CAF. They regulate the pilots. And these are CAF aircraft. The pilots are allowed to fly them. So these assets are valuable too as well as our members.
But I would go to, you know, probably Jim in his capacity and

say, I don't like this. Can you check into this and because we regulate ourselves as far as CAF. We want to keep sure -- we want to make sure that everything's maintained properly, and that our members are performing the way they should.

You know, if you have to realize you've got so many personalities. And typically pilots are A personalities. I'm sorry. They're strong personalities but that's what you have to have.

But I would go to the appropriate person, paid employee for the headquarters stuff to handle -- to resolve that. That would, that would be their duty.

Q. Okay. So I've got to ask a follow on question then. Then why would you go to a paid headquarters' staff? Did -- correct me if I'm wrong. CAF has wings, it's water and it's whatever?

A. For the Wings Over Dallas show?

Q. Yes.

A. Because this is headquarters to show. The show belongs to them. I just get the privilege the chairman but it is their air show.

Q. Okay. That make sense. How about Midland? If you saw a CAF pilot doing something that you were like, I don't know about that, would you still go to paid staff or would you go to -- what would you do?

A. If it's a CAF member, CAF aircraft, I'm going to do the same thing I would do in Dallas. If it's civilian, I'm going to go to

them myself or -- and report them to the FAA.
Q. Okay. All right. Perfect. In your capacity as the responsible person, have you ever had any complaints aired to you about a performer, an air boss, anything?
A. The only one would be a performer, which is something we handled right there on the spot.
Q. A complaint about a performer?
A. Mm-hmm.
Q. Okay. In broad terms what kind of complaint was it, if you can do broad terms. I just don't want to pinpoint someone specifically.
A. They were not playing well with others.
MR. ETCHER: Okay.
MR. HEATH: Was that one the marshal? The marshal threat?
MR. ETCHER: That says, that says it all right there. So okay. I can appreciate that.
BY MR. ETCHER:
Q. I know you've done pyro, a responsible person and you've done it all. I'm going to say you've done it all. You may not feel like that but in my little brain you've done it all. So you've seen lots of air shows.
Have you ever seen at an air show -- well first of all let me ask. Have you ever had the opportunity to actually watch an air show? Instead of running around doing everything have you ever had an opportunity to watch the air shows?

A. Yes.
Q. Have you ever seen an air show where fighters fly up alongside bombers and then I'm going to say accelerate around them. But go in front of them and then kind of go in front of them and then out? Have you ever seem maneuvers like that?
A. Yes, I have.
Q. When you have, does it look like they're -- from your perspective does it look like they're at the same altitude or are they -- or is one higher or lower than another? From your perspective. I know you're looking up from the ground, so --
A. No. They're, they're different altitudes.
Q. Okay.
A. But I will tell you sometimes from the crowd perspective side dimensions are hard to recognize so you have to be at a certain angle but knowing what I know and how things are briefed and just saying that I -- they're always at different altitudes.
Q. And as I said, from your perspective.
A. You know because if you don't maintain and that's the other side, they have to maintain. The pilots have to maintain what, their course as they were briefed.
Q. Okay. Do you get the -- when you're setting up -- yeah, we want, we want fighters, we want bombers in this orchestrated event do you get to say who flies those, in your capacity? If let's say --
A. Pilot-wise or --

Q. Yeah.
A. No.
Q. Okay.
A. It's got to be a pilot that is qualified to fly that aircraft.
Q. Okay. So I always like to use hypotheticals and I use me. So I'm a pilot, hypothetically for the CAF and I'm flying a P-51. Don't I wish.
A. Yeah, me too.
Q. Exactly. But, you know, you and I just don't get along. But you see you're doing an air show and I'm going to be your pilot. Can you scratch me? Can you say, no? I don't want you, Shawn. You're -- no. Can you do that? I get that all the time from Sabrina all the time but that's okay.
A. Because I don't like you is not a reason to scratch you. I mean if you're qualified in that aircraft, you're going to get in that and more or less strap the aircraft on and that's your life.
Q. Okay.
A. I mean I see pilots get up there and regardless of their personality on the ground, honestly when they get in there, they do their job. They are like machinery.
Q. Okay. All right. Now let's say it's a personality conflict, you may not -- I'll use the term like, but, you know, we may not see eye to eye on the ground. You see me in flight and you're like, he's always, you know, 30 seconds behind everybody else, you

know. He's just killing the airplane.

He's just going so slow. At the next air show can you say, no, he doesn't -- he's not safe. I don't want him? Can you, can you scratch me then?

A. Yes.

Q. Do you have the authority or do you have to go through a chain? Kind of help me understand, would you drop me --

A. Midland Air Show, I will make that call.

Q. Okay.

A. The Dallas Air Show I would voice my concern heavily to the upper management and say I -- and my recommendations is to not let him fly.

Q. Okay. Hopefully you don't have to do that --

A. It can't be -- I mean you have to have a strong personality too because you've got so many people there. You have to, you have to make quick decisions and the right decisions. It's not always easy. I mean some of the decisions are not easy to make.

Q. Right.

A. But if you don't then you're letting the show down. You're letting yourself down.

Q. And that's what --

A. You have to look past your -- well you have to look past yourself. You have to do what's best for the show and for the safety of the pilots in the air and on the ground.

Q. And that's what I was trying to get to was I know that some

of these decisions you guys have to make aren't easy. And, you know, you know everybody so it makes it even a little bit harder sometimes. I just want to make sure that you have that clear path to -- if you need to say, no, that was no. Okay. Hopefully you never have to scratch me from my job?

A. I'll try not to especially if you're in a P-51.

Q. Well I'm in a P-51. You've got to tell me about that. Kind of getting back just a little bit -- I'm almost done here and I'll pass it on to Sabrina. So you're almost done with me. Light's at the end of the tunnel for you. Being a responsible person by the FAA, does that require any training?

A. No, it does not. It's paperwork and that's why they come back to you if you don't have all the paperwork that you need. It makes them understand how your show is organized. They want to know your field layout as far as where you aerobatic boxes are, where they fly.

They're signing off on that knowing that you have your emergency response plan, your instant action plan. They want to know that you've gone through all the hoops before you -- when you submit it that if something happens you can -- you know what action to take.

Q. Okay. As a responsible person do you have to get all your performers SAC cards or anything like that? You would -- do you have to get all of that submitted to the FAA at all?

A. They're going to look at it. Nowadays they like you to have

all their credentials ahead of time to send to the FAA. It just makes their job a little bit easier when there's so many aircraft. And they could look at that and see if they have the right -- have all the proper credentials.

If not the day of the show, after the brief, they'll to the pilots and say, I need to see this, that and the other. So we just try to expedite it a little bit for them. Before it always onsite. You had to show your credentials onsite to them. But we've -- you know, they -- we've tried to streamline that a little bit.

Q. Okay. And do you have to look at the SAC cards as well or is that just totally FAA and --

A. I don't not. That's FAA. They're going to tell whether they're qualified to do that or not.

Q. Okay. I think the last question or last little series of questions I have for you. The briefing, the morning briefing, is everyone that's performing -- or let me rephrase that. Maybe you're not even performing. Is everyone required to attend that who's part of the air show?

A. No. Pilots are required. They must attend the brief because they are the pilot in command.

Q. Okay.

A. So they have to be there. All their crew is not, you know, just the main player in it. We do like the fire department to be there so they can hear what's going on, get a schedule, know when

the times of flying so they can have their firetrucks in the right positions or ambulances ready, suited up and ready to go. But no it's not. It's only a requirement for flying. If you don't attend the brief, you don't fly.

Q. Okay. And who scratches that, do you or does the air boss? If somebody doesn't attend the brief -- I'm flying, I'm flying that P-51 and I don't intend to brief. Do you scratch me? Do you say, nope, you're not flying. You didn't attend the brief.

A. I think it's a combination of both. It's -- you know it's a -- I think it's an unwritten rule. If you don't attend the brief and you don't fly. There have -- there are incidents where a plane was late getting in probably because of weather or something. And they will do a one on one brief with the air boss.

Q. Okay.

A. In the event of military aircraft that might going to fly over, they can't attend your brief but they will do a phone brief with an air boss. So if you fly in the show you are briefed by the air boss.

Q. Okay.

A. But if not, you know, you don't fly.

Q. So up on the bomber, multi-crew thing and I just want to make sure I have this right but you said the PIC has to attend or can they delegate that to --

A. They can delegate that to another, like to the copilot. Because -- well if it's multi seater, I mean multi-engine. But if

it's a single aircraft there's -- I can't think of hardly any -- there is no reason why the pilot, you know, one person aircraft the pilot has to be there unless they're briefed at a later time but it's still one on one with their boss.

MR. ETCHER: Okay. All right. Well I told you that was my last one. So I'll hold true this time but I may have one more later. So --

MS. LINEBERGER: Okay.

MR. ETCHER: But I appreciate it so far so thank you. You all good for a little bit?

MS. LINEBERGER: Mm-hmm.

DR. WOODS: Yeah. I only have a couple more questions.

BY DR. WOODS:

Q. I know that you said you have I think like three major conventions in where you are meeting up with other air show people. But is there anything that's in place for kind of establishing that crosstalk or chat outside of waiting until a December Las Vegas convention?

A. Oh yeah. I mean the air show community is a really tight community. We can pick up the phone at any point in time and call somebody. Is that what you're asking?

Q. It is.

A. Yeah. At any point in time, if I -- I mean if I had a question about somebody's performance, I could call another air show organizer and say, what do you think about that? But a lot

of times I would call the air boss, because the air boss is in direct connection with the communication and ask how do you feel about this? You use each other because you want safety to be the number on concern. And so we do look out for each other.

Q. In everything that you do are you also responsible for coordinating ride flights either for purchase or familiarization flights or things of that nature?

A. Each individual aircraft is responsible for their own ride flights. And CAF aircraft I can -- I speak of. And in CAF we have our own rule set for rides aircraft. And so as an air show coordinator I just know whether yes or no, they're going to be selling rides. But I don't get into the process of that with them. That's their own, their own thing to do.

Q. Are you made aware during the course of the air show if there will be rides on offer? Do they just give you a courtesy, oh hey, by the way, we're going to be doing rides?

A. Yes. I ask them. And they're going to do rides outside waivered air space.

Q. Are you ever familiar or have you ever encountered a moment where they have given rides during?

A. That has to be totally coordinated. I do -- I believe that prior to the last several years that was an ongoing thing. I don't quite know the rules on that. I do know here in Dallas airshow we had coordinated it and they did rides during the show. But that was, that was briefed as such. Midland air show I only

have rides before the waiver or after the waiver. I just keep it simple there. It's such a -- it's a big, big laid out airport. But here we have done it but it has been totally coordinated through the air boss. They're going to do ride so I have to be in the briefing too.

Q. And is that information contained in that package that goes to the FAA at all? Or is that any part of that?

A. No. No. No. The FAA is going to regulate that per aircraft, what type aircraft it is, the standard, experimental, whether they can do this or that.

Q. So just that pilot and the aircraft information would be included in the package?

A. Yes. And I'm not sure that I clearly answered that correct -- right, because I don't, I don't deal in that that much.

Q. Okay. That's --

A. So I don't know that I answered it all correctly. That's to my knowledge.

Q. No, that's perfect. That's a perfect answer. I wasn't sure -- like I said about something you specifically handle in addition to the thousand other things that you were handling, if that was something that you take care of or ensure it goes off without a hitch.

A. I may say it though it provides the aircraft. I mean if they were doing rides during the show they're going to fly out of the air space. They're not going to be in the box. We call it the

box. So they're not going to -- during the air show only essential crew on each aircraft.

Q. I recognize that Wings Over Dallas has been cancelled for this year, correct? It's more going to be about --

A. Yes, it's a --

Q. -- memorial event.

A. Yes, as an organized air show with waivered air space, that has been cancelled.

Q. But you do have a Midland's going. I'm going to stick to just Wings Over Dallas because that's specific to this case.

A. Correct.

Q. I'll say next year, 2024 you're getting ready and preparing again. What changes have happened since the accident that you now have to take into account and that you would have to take into account for a 2024 Wings Over Dallas event.

A. We would handle everything the same as we, as we did this last year. I mean we -- everything that we submit, everything that we do would be the same. The difference could be -- I don't know. What -- we have to make sure the city is going to allow us to do that again. But in our capacity we would still put on the same air show that we've put on. There's no reason to change that.

Q. It's a good segue into the next question is, in your opinion with your experience are there any changes that need to be made in how you do things?

A. No. I think we've -- I feel like we've perfected it to the extent. We still learn from everything we do. But no. I would do the same show help again.

DR. WOODS: Thank you very much. I appreciate your time.

MR. ETCHER: Bob?

MR. HEATH: No, I don't have anything. Thank you.

MR. ETCHER: Well I have one little, I'm going to call it an alibi question because she just brought it up.

MS. LINEBERGER: Okay.

MR. ETCHER: You said learn from every air show and perfect and all that. What did you learn from Wings Over Dallas last year?

A. I learned how quickly things can change in a blink of an eye regardless of how well you've planned it anything can happen. But you just have to move forward.

Q. Okay.

A. I mean it's just I don't, I don't know how to answer that.

Q. That was kind of a tough question.

A. It is a tough one.

Q. My apologies.

A. Oh no, that's okay. That's okay. Yep. You just learn how fast things happen.

MR. ETCHER: All right. Have anything else?

DR. WOODS: No, sir.

MR. ETCHER: All right. Well I would like to end on a good

note. So that wasn't a good question. So I leave on a good one.

MS. LINEBERGER: No, that's okay.

MR. ETCHER: You knew you were coming here to educate me and I appreciate that. But you probably were thinking, oh yeah, he's going to ask about this. And I asked, I asked questions but then Sabrina asked really smart questions. So we asked a lot of questions but I'm always afraid we'll miss one. That you're like, if they would just ask this or talk about this, it might help them. Is there anything you can think of that you thought we would ask that I failed to ask.

MS. LINEBERGER: I feel like you did ask it in a roundabout way is, you know, would you hired Russell Royce back again as an air boss? And yes, I would.

MR. ETCHER: Okay.

MS. LINEBERGER: I feel that confident in his performance and I will say that everyone is human. But I would hire him back. That's why I hired him in the first place.

MR. ETCHER: All right. Anything else.

MS. LINEBERGER: I feel like that's the question that nobody wants to really just flat out ask you.

MR. ETCHER: And we don't want to put you in a bad spot either so --

MS. LINEBERGER: That's okay. That's all right.

MR. ETCHER: Okay.

MS. LINEBERGER: Nope, I don't have any others.

MR. ETCHER: All right. Well if that's the case then we will call this interview ended at 1337.

(Whereupon, at 1:37 p.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 22, 2022 Interview of Gena Linebarger
ACCIDENT NO.:	CEN23MA034
PLACE:	Dallas, Texas
DATE:	August 10, 2023

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.



Romona Phillips
Transcriber

WRITTEN STATEMENT FROM ROBERT D. (BOB) HEATH

I am a Life Member of the Commemorative Air Force (CAF) and currently the Director of Operations for CAF Headquarters located at KRBD, Dallas, TX, which is a paid position. I generally work remotely from my home office at 220 Mallard Ln, Locust Grove, GA 30248, and travel as required to our 74+ operating locations as well as CAF HQ. My duties are defined in CAF Regulation 60-1 (attached). These duties are:

CAF Director of Operations and Maintenance (employee)
Qualifications:
- Must have extensive experience in Warbird Operations and Maintenance
- Must have extensive experience as a Warbird Pilot with at least a CFI, commercial certificate and class II medical
- Must be certificated AP preferably with IA
- Must have at least two years' experience in an organization with a SMS and performed related duties
- Must have SMS training either academically, or from an industry recognized professional
- Must have formal aircraft accident investigation training if the CHIEF AVIATION OFFICER does not

Responsibilities and Duties:
- *Serves as the CHIEF AVIATION OFFICER when he is out of pocket*
- *Collaborates on Department decisions and drafts policy in Operations, Maintenance and Safety*
- *Provides oversight of the 91.147 drug and alcohol program and authorizes participation of all Safety Sensitive personnel*
- *Manages the LHFE program, authorizes each pilot for participation per their ground and flight training anniversaries, maintains the FAA credentials, training records and internal documents*
- *Authorizes all pilot training, CAF pilot ratings and facilitates the Flight Safety and Stan Eval Committee's approval of Instructors/Check Pilots*

NOTE: The Flight Safety and Stan Eval Committee is also the HQ body to conduct pilot "fit to fly" evaluations after accidents, violations, or other issues where continued flight status decisions need to be made.
- *Participates as a pilot and aircraft mechanic*
- *Presenter, author and publisher of safety, operations and maintenance briefings, articles, and blogs*
- *Co-Chair of the Flight Safety and Stan Eval Committee*
- *Manages FAA Exemptions, waivers, LOAs and LODs*
- *Communicates with unit officers and members daily*

Note, many of the maintenance related duties above transferred to the newly created Director of Maintenance on 1 April 2022 and this change will be reflected in the 2023 change to CAFR 60-1.

I have a Multiengine Land ATP with commercial privileges in single engine land and sea with a Class 2 FAA Medical Certificate. I am qualified in CAF T-6, T-34, PT-19, and L-2 as well as my own L-19 and DA-40.

Since I work remotely, I do not have any Wings Over Dallas airshow related duties and I was not involved in any planning activities for the 2022 airshow. I arrived in Dallas on Tuesday, 8 Nov, and participated in setting up the airfield for the airshow. On the day of the mishap, I attended the pilot briefing at 0800. I flew as a scanner on the B-17 for the Tora show at 1130. I was planning to fly as a safety observer in the Trainer Parade on Sunday so I was on the north end of the airport working with that pilot when the accident occurred so I wasn't able to observe firsthand what happened. I returned to the Dallas Police Emergency Mobile Command Post where I assisted Jim Lasche for the initial portion of the emergency response. I reviewed the B-17 manifest and confirmed that the scratched-out name was a duplicate of Terry Barker.

All 3 pilots were CAF volunteer pilots that were trained in their respective aircraft by the CAF. I knew Craig Hutain from my time as Ops and Maintenance Office for CAF Airbase Georgia, as well as my duties as Director of Operations. I personally flew with Craig in a T-6 to qualify a new pilot in the Airbase George P-63. I observed his Aerobatic Competency Evaluation (ACE) in the P-51 and P-63. On the day of the mishap, I attended the Tora briefing at 1050 and observed Craig as he prepared for his role flying a T-6 in that performance. He was alert and sociable with no observable deviation from his normal personality. Craig was current and qualified in CAF T-6, P-51, P-39, and P-63. He was a CAF instructor and evaluator in the T-6, P-39, and P-63. In June 2022, I appointed him as a CAF Fighter Evaluator Pilot to do interview flights in the T-6 for prospective CAF fighter pilots. He also served as Operations Officer for the Tora Demonstration Team.

I knew Len Root from my work at CAF HQ as Manager of Operations and Maintenance, then Director of Operations. He was an active member of our Standardization and Safety Committee which is a select group of 10 senior CAF pilots that advise Jim Lasche and myself on matters of aircraft operation and pilot performance. I have never flown with him but worked with him regularly in the course of normal business. I saw him on the day of the briefing

and did not see anything unusual but didn’t have a chance to speak with him.

I only know Terry Barker through telephone conversation in his role as the Gulf Coast Unit Maintenance Office. I met him personally the day before the accident.

Bob Heath
Director of Operations, CAF

On-Scene Interview: Robert "Bob" Heath

Representative: None

Date/Time: November 15, 2022 / 0122L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Jim Lasche
Investigator: James VanDerKamp

During the interview Robert "Bob" Heath stated the following:

Bob Heath was the Director of Operations, Commemorative Air Force (CAF) for the last 2 years. He assisted the Chief Aviation Officer, collaborated on department decisions and policies and managed the Living History flight Experience program monitor ground and flight training to ensure it complies with exemption requirements and maintained the training program and training and qualification records for ____ volunteer pilots in 74 different units. Interfaced with Standardization and Safety Committee and advised the Chief Aviation Safety Officer. He was previously the director of both operations and maintenance. He was a POC with FAA on operational matters. He made periodic visits to the various units to advise. In addition, he also flew a T-6 and T-34

He was one of only a handful of paid staff employees and manages a library of manuals online, including but not limited to: GOM (60-1), Maintenance Manual (60-3), Drug and Alcohol Program Manual and SMS Manual. He reviewed the manuals annually and revised, if required. The structure of the organization and manuals is similar to the USAF.

The majority of the pilots were either current or retired airline pilots or current or retired military pilots and had a understanding of and respect for professional aviation training. Pilots must have a pilot's license with a minimum to fly for the CAF, most held a commercial pilot rating, if not an ATP. Additional experience requirements were set for different airplanes based upon the complexity, e.g., tailwheel, high performance, multi-engine, tail wheel as well as the type of airshow.

The manuals, regulations, policies and procedures were maintained online, and all pilots had access to them. Qualifications were tracked continuously online using a program called Rally Point which shows real-time information on flight times and all qualifications. Check rides were recorded on a Form 602 and entered into the database. It was a very comprehensive system which had been in place for 1.5 years. If a plane is flown, it is

entered in Rally Point and trips a flag if anything is missing. It is crosschecked with Flight Aware to ensure all flights are entered. They also kept upcoming items requiring attention on a white board to keep it visible.

He lived in Atlanta and came out to Dallas for the airshow. On the day of the accident, his duties were focused on preparation for an upcoming flight and was at the north end of the field and did not see to collision. He attended the main airshow briefing both days. He was not involved in any of the tabletop exercises due to his remote location.

Interview concluded at 1254L

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:	*	
	*	
FATAL COLLISION AT WINGS OVER	*	
DALLAS AIRSHOW AT THE DALLAS	*	Accident No.: CEN23MA034
EXECUTIVE AIRPORT IN DALLAS, TEXAS	*	
ON NOVEMBER 12, 2022	*	
	*	
* * * * * * * * * * * * * * * * * * *		

Interview of: BOB HEATH, Director of Operations
Commemorative Air Force

Dallas, Texas

Thursday,
August 10, 2023

APPEARANCES:

DR. SABRINA WOODS, Investigator
National Transportation Safety Board

SHAWN ETCHER, Investigator
National Transportation Safety Board

JIM LASCHE, Chief Aviation Officer
Representative

I N D E X

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I N T E R V I E W

(8:02 a.m.)

DR. WOODS: Okay. Good morning. It is August 10th, 2023. The time is 08:02 central. How are you doing? My name is Sabrina Woods. I am from the National Transportation Safety Board. I'm a human performance investigator investigating the November 12th, 2022 accident that took place out here at Dallas Executive between a B-17 and the P-63. The Board has been congressionally charged with determining probable causes in accidents in significance, in incidents such as this. And the reason you're here is because you have a wealth of information to help us kind of get closer to figuring out what happened. But we don't do that alone. With me is a couple of other people. Shawn, if you'd like to introduce yourself.

MR. ETCHER: Good morning. My name is Shawn Etcher. I'm the operational factors investigator with the NTSB. Thanks for being here.

DR. WOODS: And Bob, you're here. We're going to get into a little bit more about what you do and your title and things like that, of that nature. But as always, we always offer people to have one person with them to help represent them, support them, whatever, through this process. I see you have somebody here with you. I just want to make sure that that person is acknowledged as being your representative. And --

MR. HEATH: Yes. That's correct.

DR. WOODS: Okay. And representative, if you would please introduce yourself.

MR. LASCHE: Yes. Jim Lasche, CF chief aviation officer.

DR. WOODS: All right. Thank you for that. Again, Bob, all conversations like this are routine for Shawn and I. This is what we do for a living. We do recognize that it's not routine for you. So, we appreciate you letting us come in here and be on your land and ask you things that can help us along.

How this will go is we're going to do roughly two rounds of questions. The first round does tend to be a little bit longer than the second round. So, just kind of bear that in mind. However, if you need a break at any time, don't hesitate. Just say like hey, let's take a break. And we'll do that. We'll go off record and you can take that break. Just let us know. Take the time you need to answer questions. Recognize that I don't know is a perfectly acceptable answer. You do not have to come up with something on the fly. If you don't know, just say so. We'll move on. Ask if you don't understand the question. We're certainly going to do the same. If we don't understand your answer, we're going to ask you to clarify.

This interview is being recorded so that what you say is captured perfectly. It is the recording that will be sent to a professional transcriber. That transcription is what then goes further on to be a matter of public record, not the recording. Are there any questions about that?

MR. HEATH: No.

DR. WOODS: Okay.

INTERVIEW OF BOB HEATH

BY DR. WOODS:

Q. So, for the record then, if you would please state your full name, spelling your last.

A. My name, my full name is Robert Davis (ph.) Heath. My last name is spelled H-e-a-t-h. I go by Bob.

Q. Okay.

A. So, that's what most people call me.

Q. Okay. Thanks, Bob, for that. And so, if you could please, can you tell me what is your job title here at Commemorative Air Force? And just, I guess, give me a high level overview of what it is you do.

A. Okay. My title is director of operations for Commemorative Air Force and I assist the chief aviation officer whenever he's gone or take his place whenever he's gone. I collaborate on our operations department decisions and policies for maintenance and operations and safety. I help provide oversight of our, all of our flying operations, including our air tour operators which are governed under 91.147 FAR and a living history flight experience flights, as well as just the normal part 91 flying. I help manage what we call our standardization and safety committee which is a group of, varies a little bit between eight and ten of our pilots, senior pilot volunteers that help advise me and Jim on policy if

we have questions on things. I participate, I'm a pilot also with the Commemorative Air Force. Fly a T-6 and T-34. Although, I'm not current. I also fly some of the other airplanes, PT-19, L-2 and L-5 and some other airplanes like that.

And let's see. Basically, I'm kind of the point of contact for our operations manual which is Commemorative Air Force reg 60-1. And so, I consider myself the primary keeper of that document to make sure it's up to date and I coordinate any changes. I try to look for any operational factors that occur in the course of a year that require changes to it. If there's any part of it that needs to be waived for a certain item, I'll coordinate that with Jim. I usually talk with him about it. And something to keep in mind with this operational reg, it's a, it's a layer that's over this. And of course, the federal aviation regulations, CRFs, we don't, everything is done in coordination with the or in compliance with the FARs, federal aviation regulations. And it's, everything in 60-1 is in addition to what's normally required by the FAA.

Let's see if there's anything else. I do a lot of coordinating. I work with the whole Commemorative Air Force. So, Commemorative Air Force consists of, right now, we have 175 aircraft spread around 75 locations around the country, 71 units we have right now. And that changes as we add some or subtract some every once in a while. We track in our database, we track about 700. Right now, 703 pilots we have in there. Of those, 375

approximately are active today and current and at least one of our aircraft. And so, I, along with the other members of our operation staff, track that and I review check rides and am the approving authority for, it's been delegated from Jim. Jim is actually approving authority and he delegates that to me most of the time for new pilots and recurring check rides and instructor pilots. And that's pretty much it.

Q. That's a lot.

A. It keeps me busy.

Q. How long have you been with Commemorative Air Force?

A. Well, I originally joined in 1979 down in Harlingen. And then when I was on active duty in the Air Force and flying for the airlines, I was not active in the Commemorative Air Force. After I retired from airlines and I was an aeronautical engineer with Mercer Engineering Research Center, I rejoined the CAF in 2013 at Air Base Georgia where I joined just to work on the airplanes. But I ended up being the maintenance officer for three years and operations officer for a year. And then when I thought I was going to retire from doing that, Jim asked me to come work here at headquarters.

So, I've been doing headquarters work since July 2018 when I started. And I was, for about three and a half years, I was a contractor because I live in Georgia. I don't live right here in Dallas. It was easier to make me a contractor and have my office set up there at my home. And my title then was manager of

operations and maintenance because I have an airframe and powerplant license with inspection authorization. So, I can cover that part of it. And I handled just, help Jim with just about everything. And, but mostly, at that time, mostly maintenance items. Occasionally did some operation things and I was always there to consult on that.

And then in, let's see, January 2022, the incumbent director of operations retired, Buddy Cooksy (ph.) and I was appointed director of operations at that time. So, that was about a year and a half ago or really 11 months before the accident. And in, I was still a contractor. Then in April 2022, I was made a full time employee just to make sure that everybody outside the CAF knew I had full authority to operate in that position.

Q. So, in this current position, then who would your immediate supervisor be?

A. Jim Lasche.

Q. And you gave a little bit of an overview of some of the aircraft that you fly for Commemorative Air Force. But can you give me an overview of like, do you currently hold any other FAA certificates or ratings?

A. Well, yes. Air transport rating, multi engine with, let's see, type ratings in the 757, 767 and DC-9. And I have commercial privileges, single engine land and sea. I'm a certified flight instructor, airplane and instrument, single engine land. And in, so, I started my aviation career when I went to the Air Force

Academy in July 1971. Graduated from the Air Force Academy in '75 with a degree in aeronautical engineering. Went to pilot training at Laughlin in Del Rio. I've, I was on active duty for 14 years. I flew, was a copilot in the KC-135s for two years, a TC-37 pilot for about a year and a half. Then I went to Williams. I was a T-38 instructor pilot and flight examiner for three years. Then I went to Beale Air Force Base and RAF Alconbury where I, England, where I was a U-2 mission pilot, flight instructor and flight examiner. And then I left active duty in 1989 and went to work for Delta Airlines.

In Delta, I was a flight engineer on 727s, the L-10/11s, the first officer on 737s, 757s, 767s and a captain on MD-88. And I own, currently own three airplanes myself. I've owned, owned an aircraft ever since summer of 1977, I bought my first airplane. So, I've been an aircraft owner since then.

Q. And to confirm, you mentioned earlier that you do fly some of the aircraft that are in CAF inventory. Do you do that as a performer in air shows as well?

A. I don’t currently do that. I have done that. I wouldn't say I do a lot of it. I have to, I have to know the details of air shows because of my job. And in general, I don't work on any particular air shows. I just make sure our pilots meet our requirements for currency and that sort of thing and help them get ready to go fly air shows. Really, most of the flight operations or day to day operations are handled by the unit.

So, I mentioned the 71 units that operate our 175 aircraft. And so, it's the operations officers at those units that handle. So, for example, when I was operation officer at Air Base Georgia where we had seven airplanes, PT-19, T-34, T-6, SBD dive bomber, P-51 Mustang, Corsair and a P-63. So, in that position, I did supervise more day to day, guys getting ready to go to air shows because as the unit that operates the aircraft whenever we send, the unit sends an aircraft to an air show. They either get invited or some, they get an invitation to go to an air show.

There are requirements that have to be met. Credentials need to be presented to the air show. Operator and, I would do that as an operations officer there. So, for example, Craig Hutain, the accident pilot in this case who was flying the P-63, he, I'm very familiar with him. I've flown with him because he was a member of our organization. CAF pilots can be members of more than one unit. And so, for example, Craig operated the P-63 out of Conroe, Texas but he also flew our P-51 Mustang and our P-63 at Air Base Georgia. So, I knew him from that. I've flown with him in the T-6.

And I observed, for example, when he got his SAC card in P-63, that was over at Speedway Airport which has an air bedding box. And so, I, I wasn't directly, I'm not, in my position in CAF, I'm directly involved. That's something that's handled by ICAS and there are people that operate those kinds of certifications. But I did go along and I observed. So, I watched

the briefing, debriefing and I watched his flight. So, I was familiar with what the requirements were to get a SAC card.

And so, I watched him get his SAC card in the P-63. That was, I don't remember exactly when that was. It was five or six years ago. He, I think he already had a SAC card in probably T-6 and the P-51 at that time. So, it was not his first. It was endorsement to an existing SAC card as I recall. But he's, I'll just say he was a very competent pilot in all my observations of him. So, I've known him, I'd known him about six years I think.

Q. And do you happen to remember when was the last time you did perform as a pilot for an --

A. Yes. Well, yes.

Q. -- air show?

A. I don’t know exactly. It's probably been five years and it was at a small air show in Lexington, Kentucky. Took a T-6 up there. I just performed at the very basic level which basically meant, you know, I had a pilot's license. And for the CAF requirements, we require, prior to anybody operating an air show, they have to first observe an air show with another qualified pilot. That includes the briefing. And fly with it. And then he has to fly in an air show being observed by another pilot that's qualified. And as I say, I don't, I'm not a big air show guy. I don't, that's not, I like flying aerobatics and doing that sort of thing but air shows are not a big motivating thing for me, as far as going to do, performing.

So, I think that was probably, that was my, that was the last show probably that I flew. In the military, I flew a couple of air shows but that was a long time ago. It wasn't anything, you know, it was just flying around in circles.

Q. Are you an Air Boss yourself?

A. No.

Q. And for that last time that you were involved in any air show, was that Air Boss someone that you currently work with (indiscernible)?

A. No. I don't even remember who the Air Boss was. So, the two air shows that I flew in, I flew as an observer in the backseat of a T-6 with an air show at Air Base Georgia, at Peachtree City, Georgia. And that was probably eight or nine, eight years ago probably. And it was, I don't remember who the Air Boss was there. And then the show that I actually flew in, I flew the T-6 up and I basically listened to the briefing in the morning. I don't remember who it was.

And, you know, I had certain restrictions. At that time, I didn't really know where the, where the rules came from, you know. It was the bank angle restrictions, minimum altitude. They were briefed at the briefing. And so, that's what I did. Just flew the circles in front of the crowd and kept within those parameters and that's it. The last three years, four years, so, three air shows over the last four years here at Georgia since I started working for headquarters. Then I observed. I didn't fly. Well,

I think I did fly in the air show actually now that I think about it because I flew with somebody that needed to be observed in an air show. He was an experienced pilot but we didn't have him down as having a senior pilot rating.

So, I flew in the steering room (ph.) with him to get his senior pilot rating and that was three years ago. And but so, for three, the last three air shows here, I, he was here observing. I was not involved in the organization of the air show at all. That wasn't part of my responsibilities. I just came and helped out and I observed the flight, the briefings and general operations of the air show here on the ground. Did that answer your question?

Q. Thank you. You did mention earlier that you, part of your task is to help prepare performers for shows and you did mention things like credentialing. And then you just mentioned like serving in an observation role. So, tell me more about preparing performers for their shows.

A. Okay. I don't really prepare performers for shows. That again is, I make sure that they meet all the requirements for flying the aircraft, basic aircraft control. And we have certain levels of demonstrated proficiency in the command of Air Force. And so, senior pilot rating or excuse me. That's, aerobatic rating. So, pilots that are going to fly aerobatics in our aircraft have to demonstrate that on your annual check, right, that they can fly aerobatics to get the aerobatic rating. I mentioned the senior pilot rating already. That's again basically

to make sure that somebody has been exposed to an air show before they ever have to fly in one. Because you don't, there's no requirement for anybody to know anything about air shows. As long as they come to the briefing in the morning and get briefed by, by the Air Boss, for a basic level of flying in an air show, that's all they need to know. And it's pretty basic. But we have an additional layer internally about the senior pilot rating.

So, they have to attend with somebody and then they have to actually fly under the supervision of somebody else. So, that's the extent of preparing people for air shows. So, when I say getting somebody ready to go for an air show, that means preparing the package because air shows require a package of credentials to be sent in prior to air show.

Usually, it's 45 days prior. And that package generally consists of, it's a form that's in FAA order 8900 and that's usually sent up by the air show organizers to the performers to fill out. And it covers things both for the pilot and the aircraft. So, it'll cover whether or not they have, it'll cover the basic licenses and medicals. It will cover if they have any other credentials, a SAC card or something like that or if, if it's a case of an, what do we call it, approved maneuvers package. We only have one CAF group that has approved maneuvers package and that's Tora! Tora! Tora! But that is groups like Thunderbirds and Blue Angels and things like, and other groups like that that basically have a very coordinated package set up.

And so, when I say preparing somebody to go to an air show, that's what I'm talking about. Getting that package ready to go. So, that, we make sure the pilot is competent in the aircraft and meets all the regulations with the additional layer of the senior pilot rating just to basically perform in an air show. And we also keep track if a guy has, if a pilot has a SAC card, aerobatics card, we call that a command, we give them a command pilot rating and that's what that, and that's covered in CAF reg 60-1 that I mentioned earlier. And, but as far as, and also formation cards.

So, basically, four levels of air show performers, in my mind, you know. There's the basic level which is the guy shows up. He's been invited to an air show. He's going to go fly in front of a crowd. And the only thing you need for that's a pilot license and a medical and then attend the briefing ahead of time where the Air Boss should brief him on the parameters of what his parameters are for flying. The FAA will check the credentials also at the beginning of the day for all, all the performers. The next level would be a formation.

So, to fly formation in waivered air space, you have to have a card form a, it's called FAST, is an acronym for formation and safety team. There's about 15 signatories for that that provide formation training that not only are they competent in formation flying, and there's a formation training manual. If you want that, I can provide that for you. FAST also does provide an air

show basically handout.

And let's see. I can't remember what it was called. But you probably have seen that and I'll email that to you also. You may have seen it already. It's called air show operations and that's only, that's been out since 2017, the air show operations appendix that goes to the FAST training. So, FAST cards. And we, that's the only part that the CAF gets involved in certification because we are signatory to the FAST team through what we can TRARON. And we do occasionally certify pilots but most the time, our pilots are certified through additional ones, like the T-34 group. North American Trainers Association does a lot for T-6s, P-51s, even B-25s. So, I don't do certification. We have a CAF member that is our what we call TRARON lead.

So, TRARON is our FAST organization, our FAST signatory member. And we have a TRARON lead that does that. He is an examiner and he attends the FAST, it's an industry group that puts together the procedures and keeps them updated. And he participates in that. I do occasionally go in my position as director of operations. Even as the manager of operations and maintenance, I attended some of those annual meetings and that usually occurs at the ICAS in Las Vegas in December. So, I stayed in on those occasionally. Did I answer your question? Okay.

Q. Thank you. I'm going to leap ahead and normally I kind of go in a bit of a linear fashion. But there's something that you said that interested me. So, I'm going to flush that out a little bit

more. You talked about formation flying and then having the FAST card requirement for that. Can you give me a, like a quick description of what does formation flying mean?

A. Well, by, there's several definitions of formation flying and just I'll mention two. I do have a FAST card. So, I'm qualified as a lead, FAST lead. So, there's wingman is the basic level. Then there's lead and then there is evaluator just so you know. Formation by definition is aircraft that operate within 500 feet of each other in a coordinated fashion. And I can --

Q. I'm looking for your terms.

A. That's okay.

Q. That's fine.

A. Okay. That's good.

Q. So, would you consider dissimilar aircraft flying in an orchestrated pattern together a formation?

A. If they're not within 500 feet of each other, no. I wouldn't. It would be just like following. When, the ATC (ph.) lines, some, you know, ten airplanes up on final to come into land at Atlanta. Follow that guy in front of you. That's what, if they're not within 500 feet. So, that would be, for example, the bomber parades or the trainer (ph.) parades going in circles. I don't consider those to be a formation. That doesn't mean they don't have to be coordinated. They need to be coordinated to make sure everybody knows where not to go. But by definition, that's not a formation. In fact, according to FAA order 8900, aircraft

in formation are not allowed to separate in the display area and come together again.

So, by separation, I would consider that to be more than 500 feet apart. That would be separated. The only time they're allowed to do that is for pitch out for landing. I think there's one other exception, like departing the area. I can't remember what it is right now. So, the short answer to your question is no. I don’t consider that. If they're, they were closer than 500 feet, then either somebody made a mistake or they should have had, and they should have been in formation.

Q. All right. Thank you. Now, moving back into my typical line of questioning. Can you tell me how involved are you in your position in recurrent training?

A. Well, up until when we hired our director or training that basically, in coordination with Jim, we established the standards that are required for recurrent training. I don't conduct the training. The way we operate it here is we delegate that to the units to do that. So, when I go, and I try to, I do make periodic visits to units. And so, when I do visit a unit and sometimes even when I'm not visiting a unit, I'll ask them, hey, show me what your training program is. I discuss it often times with our unit operations officers. So, it's the unit operations officers that are responsible for actually creating the syllabus that are unique to their aircraft.

At headquarters, we operate so many different types of

aircraft. It's not really, one size doesn't fit all. And so, the units that operate the aircraft know better what's required for them. So, Jim has established that things that, you know, we talked about yesterday, as far as CRM, so, crew resource management and operational resource management requirements to discuss those things but they're very broad. We require systems training.

So, that requirement is in 60-1. And so, it's a general requirement. The units are required to organize that. So, I attend briefings various places for different airplanes. And if somebody calls me and says hey, I need help putting together a program, up until now, I've helped them do that.

Now, we've had a training officer for about a year now. And so, he, that's, we're trying to transition that over to him right now. So, then as far as recurrent training, that's ground training. When you have recurrent training, we require a check ride at least once a year for every CAF pilot. And we require that each aircraft that a CAF pilot flies, he has to have a check ride in that aircraft every, at least every two years.

So, if you fly one airplane, if somebody just flies a T-6, they have to have a check ride in the T-6 every year. So, if I fly T-6 and a T-34, I can alternate years. As long as I have a check ride every year in an airplane and in each aircraft I operate has to have at least every two years.

Now, we do have pilots that fly multiple, more than that,

five or six different types of aircraft. Okay. Well, they, they can fly one check ride in a given year but that means they have to have all their other check rides in the next year. So, they generally divide it up. But when they take a check ride with our check pilots or the instructors and check pilots, it's all the same role for us. Documented on CAF form 602, that's our check ride documentation. And that's where they document, they document their ground training and their medical and that sort of thing.

Flight review dates are put in there I think and then all the maneuvers that they fly and it's signed by the pilot that he is indeed accomplished all of these items. When they fill out a form 602, that comes to me. I review it and I will cross check it against our database to make sure that, yes, indeed, this guy was, should be taking this check ride because we require approval. We don't allow anybody to fly takeoff, landings in any of our aircraft unless they have what's called a transition letter. So, it's a long, involved process.

I know you talked, asked a little bit about that yesterday and we can talk about that more if you want. But it's, it's a pretty extensive process just to get to the point to take training. So, initial training, I review all initial training documents, recurrent training documents. And when I approve them, then it goes to our admin manager, Rita (ph.), who checks things like dues are paid. She'll make sure she has copies of current medical certificates and pilot licenses. And those kind of

administrative things is what she looks at. So, I end up, I review for the CAF all the checks rides that come through. So, that's, you know, that's quite a few. That's, I think this year it was 600 or 700 hundred we've already done.

Q. You've established what the requirements are for CAF for your pilots. What are some of the requirements that you have in place for the Air Bosses you contract?

A. We don't have any CAF, I don't have, in my operations, I don’t have any requirements for, that I handle for Air Boss requirements. That's, I look at, well, I make sure our pilots are qualified in general to go to any air show anywhere. So, I don't get involved in organizing any air shows or hiring any Air Bosses.

We do, let me just mention. We do have, so, we have multiple documents that cover our CAF operations in general, no just aircraft operations. So, there's the regulations. I mentioned a couple of them already. Well, I mentioned 60-1. My maintenance one was 66-1. But we also have what's called unit manuals. That covers other areas, like finance, and we do have a regulation that covers air shows. I don't know that, I don't remember if it has anything about Air Boss operations but we could look a little bit later. I'll send it to you and you can take a look at it. It's generally for the units that we're going to put on an air show, I guess. So, Jim knows more about that than I do. But I'll send that to you and you can, we can look at it later if you want.

Q. So, I recognize that your aircraft and your pilots go to

other air shows where they've been invited in and might perform there. But for Commemorative Air Force produced air shows, to what level do you get involved in the production of the air show?
A. I don't get involved at all.
Q. Okay.
A. Other than just, no. Not production. Just I come and observe and help Jim out during, for the air show that we have here. I don't go to, haven't been to any other air shows.
Q. Okay. You also talked quite a bit about the requirements that are set forth for each pilot, what they have to do, what you then look for once that information gets compiled to your level. What happens if you have a person who is not toeing the line, that's failing to meet performance standards? What happens next?
A. Well, I will, generally what we'll do is convene, send the information out to the safety and, standardization and standards committee and let them review any, the facts of the case. So, I can give you, for, well, if you'd like, so, we had a pilot that we'd been watching closely for a couple of years. He's an airline pilot but he's been a first officer on the B-24 and the Blue BT-13. But we had some reports of substandard performance.

And so, I gathered that information, put it together in an email and sent it to the stand (ph.) eval committee to review just to get, see how many of them were familiar with the situation, if they had any advice on it. Then I discussed it with Jim and ultimately what we did is we removed him from flying any of our

planes. Jim has that authority to do that. That was my recommendation too, was to remove him from flying. So, how would that come about? It could be reports from people that he flies with. It could be the FAA calls us about somebody. It could be a check ride that somebody flew and the check pilot says you're not ready to go. That's for somebody that's already flying with us. If it's somebody that's applying to fly, I'll review their history and look at their experience level. And all instructor pilots also have to be reviewed by anybody that's up for instructor pilots to be reviewed by that standardization and safety committee that I mentioned. So, that's how that's handled.

Q. So, is that the natural order of things? You go from the report to no longer being able to operate Commemorative Air Force aircraft. Are there any steps in between there?

A. Well, there's not necessarily steps in between. There could be corrective actions. There could be retraining. In fact, the incidents that I mentioned, I tried to shorten it up. Because we did, he did get some retraining in an aircraft. In fact, when this accident occurred, I was on the north end of the field because I was going to fly with this guy the next day in the BT-13 in the trainer parade to observe his performance there. So, that's where I was when the accident happened. I did not see the accident happen. I arrived two, three minutes afterwards. I heard about it. And I had my bicycle and rode down to here, where the accident happened.

So, we do have retraining and, you know, just the, there's a whole spectrum of things that can happen. If somebody is, if it's not necessarily a performance issue, like, you know, hand eye coordination flying issue, it's an attitude issue, that's actually a lot more serious. And these kinds of things, I always coordinate with Jim. Jim and I work pretty closely together on all of this stuff. But I'm probably the first one that would identify it.

The reports would come into me. And again, we would set up the committee meeting and we'd do it by phone usually. And we have a procedure that's in 60-1. It's called a flight evaluation board. The flight evaluation board has two functions. One is to approve, to approve pilots to fly. Another one is to evaluate substandard behaviors. So, if we look in 60-1, you'll see what the procedure is for that. And so --

MR. LASCHE: Can I, am I allowed to say anything?

MR. HEATH: You want to --

MR. LASCHE: I was just going to say the FEB (ph.) process that you were talking about, that can also happen at the unit level. Right. So, the unit, a unit can say hey, we got, we held an FEB board too before.

MR. HEATH Right.

MR. LASCHE: It comes to us when there's, when there's a conflict or there's an issue.

MR. HEATH: Yes. Right.

MR. LASCHE: Units have the authority to do that. So --

MR. HEATH: Generally, we like to keep all of that done at the unit level because naturally, it can be, they're the ones that know the pilot the best. And so, the process is defined in 60-1. It's, FEB is generally held at the unit level if they've identified a problem and they can remove somebody from flying the aircraft themselves. If they do that, they still have to send the report to us for review just to make sure that the proper things were handled. If it's an occasion where we find out about it and have to go down to the unit or it's, the unit can't handle it, then we can have an FEB at our level. But I don't generally convene the FEBs. You'd normally see an operations officer at the unit. That's who's responsible for it and that's defined in 60-1. Does that answer the question? Yes.

DR. WOODS: All right. Just one more question for this round for me and then I'm going to hand it off to Shawn.

BY DR. WOODS:

Q. And that is this accident that took place, were you familiar with the crew of the B-17 and the single pilot in the P-63?

A. Yes.

Q. Were those three individuals, in particular, had they met all the requirements --

A. Yes.

Q. -- prior to taking part in this air show?

A. Yes. And I will, go ahead.

Q. Please.

A. I was going to say I flew as an observer on that B-17 the sortie (ph.) before the crash when Tora (ph.) flew it because I had never flown with Tora and his director of operations. I felt I needed to know how they operated. So, I flew on it as an observer. And so, in Tora, Craig Hutain, fly the P-63, he was, he's the operations officer for the Tora group. And so, I was at the briefing.

They have a separate briefing after the main air show briefing. They have a separate briefing that's held down at the terminal. I was at that briefing. I observed him there and he was actively involved in it. He did not give the briefing. Tora lead gave the briefing but he was there and actively participating. I didn't see any issues with that. He was alert and active.

And this is, I'll just say, you know, Tora, it's one of these approved maneuvers packages. So, the way they deconflict is people have to be at particular positions at particular times. That's how they separate themselves. You have to be very disciplined to do that. It's very much different than, as I've learned since, what was happening out at the accident where it was very dynamically directed.

And Craig's a very experienced pilot. He does, he does solo acts too but very active with Tora. And I can just imagine him, he's told be at the 500 foot line now. That's where he's going to

go. It's not necessarily at the sacrificing looking around. But that's a very important thing to be where you're supposed to be when you're told to be there because that's how separation is maintained. Because a lot of times in these very active air show environments, you can't see the people behind you. There's people overtaking you or you're turning 180 degrees. And especially in some of these planes, like the P-63, the visibility is not that great out of it, you know. You already know about that.

So, I would think that transitioning from an approved maneuvers package where you have to be exactly where you're supposed to be to something less than that could be a factor and maybe why he didn't see the B-17. That's subjection, you know, conjecture, I know. I just wanted to mention that.

Q. Thank you for that and I know this is difficult. I know that you were all close and that you know these individuals and that it's a very small knit community. So, again, thank you.

A. And I did see, the B-17 pilot, I did see him that morning. I did not fly with him. I think he actually flew a ride before the Tora flight. And so, I saw him briefly. I was out there when he started and I was out there when he came back from that flight because I was waiting for the airplane to come back to get on it for the Tora flight. So, I saw him come back.

And again, I didn't see anything, you know. He was his normal, both, all three of those pilots are very sharp individuals in my estimation and I wouldn't hesitate to say if I didn't think

they weren't. But three of our best.
Q. So, have, the assumption then would be have any of those three ever met one of your FEB boards?
A. No. Well, other than just to get approved to fly an airplane.
Q. And --
A. In fact, in fact --
MR. LASCHE: Len.
MR. HEATH: Len was on, he's on the, he was on the standardization and safety committee. And so, he would be involved in reviewing the FEBs at the unit level or if we had an FEB at headquarters, he would be involved in that. And I'll say that Craig Hutain, I had just appointed him a few months before to be one of our fighter check pilots. Approve, all of our pilots that in the FAST fighters have to demonstrate proficiency from the backseat of a T-6 which is not easy to do because of limited visibility and that. Two flights in that. It includes aerobatics. And he was, I had just appointed him as one of our fighter check pilots for that.
Q. Approximately, how many people are on your standardization board?
A. I think we have eight right now.
Q. And where do all these individuals come from?
A. All around the country. They're CAF members. But we have people that live in Missouri, California, Utah, Texas.

MR. LASCHE: Georgia, Georgia.

MR. HEATH: Georgia. Yes. Georgia.

BY DR. WOODS:

Q. And how does one get to be appointed to this board?

A. Well, you invite them. The board was established before I came into this position but I did, I have appointed one person since I've been on it. And we rotate it periodically. They're selected by Jim basically with, in consultation with other people. Now, there is a chairman of that committee. I'm not the chairman of it. It kind of reports to me and Jim. It actually reports to Jim but I will conduct the meetings for it. We do have a chairman of that committee. He's an experienced air show pilot and Reno racer. That, I would consult and I did consult with him when I appointed somebody knew. So, it's sort of a consensual thing. We identify that we need somebody. We'll ask for recommendations from other members of our group and then we'll appoint somebody and coordinate it with the group that way.

Q. I guess what I'm looking for those is what are the attributes you are looking for in an individual to make them --

A. Okay.

Q. -- worthy of the position?

A. What I would be, okay. What I'm looking for in somebody --

Q. Yes.

A. -- in that?

Q. Yes.

A. Somebody that's experienced, that has a good reputation in the industry. He has to be qualified in our aircraft naturally but also has to have the additional qualifications of senior pilot. And if it's, if he's a pilot that flies aerobatic aircraft, he has to have an aerobatic rating. You know, it's a pretty, we have a lot of pilots. I don't know everybody. But you pick out any individual, somebody else knows him. And so, it's a pretty close organization and it's not hard to identify somebody that's not very highly qualified. And so, it's easy to identify somebody that is very highly qualified.

And generally, they're going to be people that participate in air shows and that sort of thing. Doesn't necessarily have to be. But we don't have a set, set of criteria because, as I say, we operate so many different types of aircraft in so many different environments. And air shows aren't the only thing we do. It's, it's a significant part of what we do but it's not even the majority of what we do, you know. We give air tour rides. We take airplanes for static displays. We just, sometimes at our small airports, just the fact that they're at the airport and they're seen flying around, that is sort of waving the flag and gets people in to hear our story.

Our mission is to educate and honor. And so, we do that in a lot of different ways besides air shows. So, some of our, I don't, can't think of anybody that doesn't fly in an air show right now but that wouldn't necessarily disqualify somebody from

being on that committee if they were a highly experienced pilot in other areas. Because we, I would look for diversity. People that don't just think in the same box, that come in and look at something new. And that's why we do cycle people through periodically just to get a new, fresh look at things. Did that answer your question or help answer it? We don't have, we don't have a written set of requirements.

Q. Do you look for other things, other than technical proficiencies?

A. Well, to me, in my mind, part of technical proficiency is the ability to get along with others and to be a good team player. I mean that to me is just as technical as being able to fly on air speed and altitude. So, yes. They have to be, you have to have the personality for it for sure.

Q. Yes.

A. You can't, you can't be the guy that sits in the corner and doesn't say anything to anybody. That's not going to work. And we, because you not only have to be good, you have to be able to convey that to others. I can't think of anybody that's, we may have one that's not an instructor. I don't, yes. TJ (ph.) is probably an instructor in something. We just appointed him. But mostly all of them are instructors. You know, we --

MR. LASCHE: TJ used to fly Air Force One --

MR. HEATH: Yes.

MR. LASCHE: -- as the ops officer.

MR. HEATH: Yes. So, we have a very, not just diverse but highly experienced in a lot of different areas group of pilots, as you can imagine. We do have a few that are, that are, we have a couple of private pilots but not very many. Couple. And they just fly some of the trainers. Did that answer?

DR. WOODS: Yes. No. And I sought clarification because I know some --

MR. HEATH: Yes.

DR. WOODS: -- highly skilled pilots are not very pleasant to be around.

MR. HEATH: Yes. That's --

DR. WOODS: So, I do make the distinction between technical proficiency and maybe interpersonal skills.

MR. HEATH: Yes, yes. There's, you're right and I see what you mean by that. The personality is extremely important. That doesn't mean, sometimes they have to be a hard ass, you know. Sometimes they've got to tell people things they don't want to hear. I have to do that all the time. I don't like it but I don't have any problem doing it. I've done it for 50 years. So, that's part of the deal.

DR. WOODS: And I know said this ten minutes ago but I swear, this is my last question. Again, it's just sparking off some of the things you said earlier.

BY DR. WOODS:

Q. For that Tora, Tora, Tora, that approved maneuvers package,

is that something that's still under the purview of the Air Boss at the time or are they completely separate?

A. They're completely separate. They, the Air Boss turns the air space over to them and he can go down and get a cup of coffee.

Q. Okay.

A. Basically. I mean, I don't think he does that. You kind of want somebody watching. The Air Boss is still responsible for all the operations but he's not going to be directing them. They do their own thing. And he tells them when they have the air space and they tell him when he's done, when they're done.

Q. All right. Thank you.

DR. WOODS: Now, I promise. That was the last question for this round.

MR. HEATH: That's fine. I'm here to answer questions.

DR. WOODS: How are you feeling? How are you ready for a break?

MR. HEATH: No. I'm fine. It's --

DR. WOODS: Okay.

MR. HEATH: Yes. It's --

DR. WOODS: Anybody else, break time?

MR. ETCHER: I'm good.

DR. WOODS: All right. Shawn, floor is yours.

MR. ETCHER: All right. Well, thank you so much. Sabrina always takes all the great questions and then I have all the really dumb questions to ask. But no. I appreciate you all

you've given us so far. It's kind of helped me. I didn't realize how many hats you have to wear in your current position. So, kind of sounds like you're kind of a busy guy.

MR. HEATH: I stay busy. He's even busier. So, that's why we've hired some additional help in the operations the last couple of years.

MR. ETCHER: Okay.

MR. HEATH: Because it is, it's, I'll tell you this. As I mentioned, I've been in the aviation business a long time and this is definitely the most complicated flying operation I've ever been involved with. And I, I was a flight examiner in the largest air training command wing in the country in the Air Force. And so, I've seen a lot of things and this is definitely the most complicated flying operation. And we try to treat it that way. We understand that it's complicated. And so, I feel like we make conservative judgements as we're making, we're trying to handle it.

MR. ETCHER: No. And I appreciate your, you're giving us all the information so far. I know Sabrina asked you about your certificates and your history and everything.

BY MR. ETCHER:

Q. But just out of curiosity, with all the experience you have, how many hours of flight time do you have?

A. I don’t keep track of it. I don't know, 15,000 or 16,000 probably.

Q. I was going to say you've got a lot of experience. So, I imagine you're up there a little bit in the hours.
A. Well, I fly virtually every day. I live in an airport. If I can fly, I fly. I don't drive past the mailbox if I don't have to. It's too dangerous to drive.
Q. Very true, very true. So, I guess, you still maintain a current medical then.
A. Yes. I have a class two medical right now. I hope to retire at the end of this year and I'll probably just get a basic med.
Q. Does the CAF require a specific medical rating certificate?
A. Not for our pilots in general. For me, our regulation requires I have a class two medical. Jim could waive that I suppose if he wanted to. If I decided, because I don't really use it right now. But we have a few pilots that fly on basic med but they can't, they don't give rides. They can't fly anything that involves flying for hire or anything like that.

So, it would be basically somebody that contributes to our mission in other ways through his flying activities, you know. Talking to school kids, giving tours, that sort of thing or maybe just building time so he can get his commercial license. Because we don't want to just have a bunch of old guys. We have a lot of old guys but we want, we want to pass this on. There's a lot of younger people that are out there that are motivated and we want to encourage them to be part of our group too and pass these skills on from generation to generation.

A lot of the skills that we have in these airplanes are unique to these kind of aircraft and it's important to preserve them. That's part of what we do.

Q. Now, I know you said your title here is director of operations.

A. Yes.

Q. And just for the record. Most people associate a director of operations with a 135, 121 as a, you know, kind of an airline type world. I just want to clarify. You guys are not. You're part 91 (ph.). Correct?

A. That's right. We do not have an operating certificate. We are part 91. All of our provisions are covered by part 91. We have another kind of layer, the air tour operator part which is covered by part 91, 147. So, that does add some additional layers. Mostly that requires the commercial pilots license. And then at that point, then a class two medical. It's more, and then the LHFE which is exemption 6802, that waives some of the requirements for limited and experimental aircraft to fly for hire, for rides for hire. That's what that does.

All the other FAR still apply but that waives that particular requirement or restriction for limited and experimental aircraft. And so, in that letter of exemption, we have requirements that we have to meet for that. So, that's a little more stringent than the air tour operators. But we keep our operation, our whole operation meets the LHFE requirement. So, we don't divide things

up. The only difference would be when we have a private pilot that flies some of our airplanes. That wouldn't meet the air tour operators or the LHFE requirements but everything else as far as their performance standards are the same.

Q. Now, I know a lot of operators that are 121 and 135, the director of ops is considered one of their 119s. Have you ever heard that phrase?

A. No.

Q. Do you guys use that around here?

A. The 119, no.

Q. Okay. So, you guys aren't designated nor appointed.

A. No, no. That's right. It's, our organization is basically more based on an Air Force model, you know. So, that's why it's a little bit of a hodgepodge of everything. But so, when we talk about units, you know, squadrons and wings and headquarters, you know, headquarters, we don't operate airplanes. Just like in the Air Force, headquarters doesn't operate airplanes either. They're all assigned to a unit.

Now, we may fly airplanes at a unit. The only time an airplane gets assigned to headquarters is when a unit gives it up or it's a new airplane and we've got it here. And it's waiting to be assigned to somebody else. We may keep it in flying status but we don't, we don't operate it for, at large or anything like that. So, if you kind of think of that model, the way the Air Force is organized, that's, that's kind of what we do.

Q. So, and it comes up to another question I have here down on my list. Headquarters doesn't have airplanes if you will. I'm paraphrasing what you said.

A. Right.

Q. Where were the accident airplanes based, the P-63 and the B-17?

A. Okay. P-63 was based in Conroe, Texas and Gulf Coast Wing is --

MR. LASCHE: Conroe.

MR. HEATH: -- Conroe also. But they're separate units. So, the P-63 was operated by what we call a sponsored group which is just one or two people operate that one airplane. And basically, Craig operated that on his own. I consider a sponsor group sort of legacy organization. We try to keep away from those now but the CAF has been around for a long time now. What, 60 years plus. And so, the way the CAF got started, you know, was a couple guys bought a P-51 and they started doing air shows. So, that's kind of a sponsored group, a couple people operating an airplane.

We try to, now that we've expanded our mission, it's not just some good old boys out flying air shows for fun. We have an education mission and an honor mission and we do a lot more things than fly airplanes right now. So, that requires a more diverse group of people. And so, when I talk about a unit, then I'm talking about a squadron or a wing or an air base. So, we've got basically three levels, a squadron, a wing and an air base. So,

we have the three air bases which are our larger units based on size and activity and most of the other ones are wings or squadrons. There's not that much difference between a squadron and a wing to be honest with you. It's just more what they want to call themselves I think.

MR. ETCHER: Okay. All right. I know with Sabrina you had said you've flown the P-51 and P-63 I think.

MR. HEATH: No. I haven't flown the P-63. I've only, I've flown a P-51 but in the backseat.

MR. ETCHER: Okay.

MR. HEATH: I fly T-6 and the T-34 is what I first piloted. But I've flown the P-51. I've flown in the B-24. I flew in the B-17 for the first time the sortie before the accident. And so, that was my first time in the B-17. And the SBD, I've flown. Again, I'm not checked out in the SBD but I've flown with another pilot in the SBD that's checked off which is our dive bomber at Air Base Georgia.

MR. ETCHER: Okay. And you may not know the answer and that's okay. I don't know works great

BY MR. ETCHER:

Q. Do you know if there's any performance difference power-wise between a 51 and a 63?

A. Well, they're very similar. So, I base this on not flying it but I'm an aeronautical engineer as I mentioned before. And I'm very keen on these airplanes. I was a maintenance officer at Air

Base Georgia where we operated, and an operations officer there, where we operated both the P-63 and a P-51 together and they're very compatible with each other in formation. At any given time, you know, they're just very closely matched.

In fact, technically, a P-63 at lower altitudes, at sea level or about where we are, is slightly faster than the P-51. It doesn't have as good a super charger system. So, at altitude, it's not as fast. They're very close in performance. I would not say that there's a significant difference performance-wise to an experienced pilot.

Q. Okay. And you mentioned just a little bit ago that you got to fly in the B-17 --

A. Yes.

Q. -- the sortie before. And that was your first time in it?

A. First time flying in it. I've been in it.

Q. Okay.

A. So, I've been to ground school for the B-17 over at Air Base Arizona where we practiced things like emergency egress and things like that. So, I was familiar with the ground aspects of flying with the B-17. I'd never flown along. And then the case I went along, not only to educate myself as director of operations, as to how Tora operates an air show environment but also I was an additional scanner looking for traffic in the aircraft.

Q. So, where were you located on that flight? Were up in the flight deck? Were you in the back?

A. I was in the nose.
Q. Okay. Your opinion, that's all, you know, you don't have to give me technical if you don't want. How was the visibility out of the 17 in flight? Was it easy to see? Were there limited areas? Just, and I know first time in it. I get it. But just what was your impression?
A. As a pilot, if you're just flying, it's like an airliner. Straight ahead and, you know, right directly to your altitude to the sides is pretty easy to see. There are some windows up at the top that you can look up but there are a lot of obstructions to view. And to see stuff, you can't see anybody behind you or up. And for even like at the exit (ph.), planes were coming out of the sun. If they had a clear window, I don't know if they could have seen them, you know. If you look where the sun was, those fighters were coming right out of the sun toward the bombers.

I don't think anybody probably, I think anyone would have a hard time seeing them in this particular case. But I would say it's, it's not as good as out of a P-51. I'll put it that way. Because the P-51 has a big bubble canopy. It's, it's I would say fair. So, if you're going to go, you know, poor, fair, good, excellent, I would call it between fair and good.
Q. Okay.
A. Kind of mediocre. It's not made to, it's made to fly in a straight line and --
Q. Okay.

A. -- not do a lot of maneuvering.
Q. Great. No. That helps. Because it was your first appearance in it and I've not been in one in flight. So, it kind of helps me kind of be that line of sight (ph.). So, I can kind of see what you're looking at. So, that helps. As director of operations, if a unit in, say, Missouri, because you brought that up a little while ago, wanted to go fly an air show in North Dakota, I'm just making up states here. Do you have to approve them going?
A. No.
Q. They just self-approve?
A. Right. What they'll do with us is they'll usually get a certificate of insurance to go to it. But no. We leave that to them. They'll document it when they're done but I don’t approve going to air shows --
Q. Okay.
A. -- generally speaking. Since the accident, I've asked people to let me know when they're going to an air show. And I make sure they're familiar with the new appendix that I put out to give them additional guidance on what they should expect in the air show and their responsibility to say no if something, if they're directed to do something that isn't within normal guidelines. So, I make sure that they're familiar with the new guidance. So, this is the first time I've really asked people to call me before they go to an air show.

Q. Your answer kind of leads into a question I had later on the list --
A. Okay.
Q. -- but I'm going to jump there for a minute.
A. All right.
Q. That appendix --
A. Right.
Q. Is that appendix E that you recently changed? Correct?
A. Yes, yes.
Q. So, you disseminated that out to all your units I assume.
A. Yes, yes.
Q. Please don't ever let me put words in your mouth. So, your units are aware of it.
A. Yes.
Q. Did they have to, how do you --
A. Well, that's --
Q. How do you know your units are aware of it?
A. I've talked to them.
Q. Okay.
A. I've called them all --
Q. Okay.
A. -- and talked to the operations officers. And again, the next layer is to have them call me before they go to an air show. And so, it will be integrated into our ground training for this next year. And so, there will be a test on air show operations

for anybody that's a senior pilot, will have to take a test --
Q. Okay.
A. -- that covers appendix E.
Q. So, that's great. You got it out to your units. That's awesome. Did you get it out to like air show world, Air Bosses? So, air shows that --
A. I sent it to ICAS. They have a safety, I can't remember his name. I met him when we were there.
MR. LASCHE: Dan Hollowell (ph.).
MR. HEATH: Yes. I sent it to him. I sent it to our FAA PMI and POI.
MR. LASCHE: Plus, our CEO sent it to John Cutty (ph.). He's the CEO of the case too (ph.).
MR. HEATH: Right. Yes. That's right. Yes.
MR. ETCHER: And forgive me. I don't mean to pause there for a moment. You just used a phrase, PMI and POI.
BY MR. ETCHER:
Q. Do you have both of those?
A. PMI is primary maintenance inspector and POI is primary operations inspector.
Q. And do you have both of those? Do you have a PMI and a POI?
A. You know, we do. As far as I know, we do. I don't ever, Steve (ph.). What's Steve's last name?
MR. LASCHE: Sheridan (ph.).
MR. HEATH: No. I'd have to look it up.

MR. LASCHE: We, we don't --

MR. HEATH: The POI, we don't really have much contact with him. I met him a couple years ago, you know. I don't know if I should, this is my opinion. Okay. And this gets, this looks at the big picture of things. There's a contest at the national level about who is going to pay for FAA and all, everything to do with aviation. And it's those that want user funds and those that don't. And as a result, the impasse, starves the FAA of funding. They don't have enough inspectors to do the job.

We are fairly low priority. I know how busy they are. So, we don't have a lot of contact with the PMI. We invite them. They're welcome to come out anytime. We encourage him to come out. We do meet with him at least once a year.

The POI, the last few times I handled putting aircraft on the air tour operators letter of authorization, it was Steve. My brain went blank. It was the POI that, that did it. Prior to that, it had always been the PMI that did it. So, I don't know who's doing it now. Because the, once we hired a director of maintenance in April last year, he was doing these letters. So, I didn't have, I wasn't sending them in anymore. I can tell you in just a minute.

Q. I was going to say if it's hard, don't worry about it. I can put that down as an IOU. How's that?

A. Yes. Okay.

Q. IOU to ask another --

A. We do have one. We did have one. If it's changed, I don't know that it's changed.
Q. Okay. No problem. Not a worry. We, we can definitely table that for, for another day. With Sabrina, you talked about your different levels of pilots. Switching gears just a little bit. So, my apologies. The three accident pilots, the two in the 17, the one in the 63, were they senior pilots? Were there, was there a mix of --
A. They were all senior pilots. Yes. Len was very experienced. He applied, as Jim mentioned yesterday, he, he was in contention for the job that I have right now when he retired from the airlines. He's been around a long time. They're all senior pilots. Yes.
Q. Okay. All right.
A. The only one I did not know well personally was the copilot on the B-17. I worked with him, emails and telephone because he was the director, he was maintenance officer for the B-17. And he did, he just revised the maintenance plan on the aircraft. So, I worked with him on that but I had never met him personally.
Q. Can you give me a ballpark number? I know I'm kind of jumping around here because --
A. That's all right.
Q. -- like I told you, Sabrina took all the, all of my --
A. That's all right.
Q. -- what I thought were great questions but she made them

better. Can you kind of give me a ballpark figure of what the average amount of flying a pilot here does for the CAF in a given year? I mean, I realize it probably varies. Depends on the platform they're on.

A. Well, yes. It would be kind of a wild guess. I would say depends a little bit on the airplane. The bomber guys might fly a little more because they're ferrying the airplane longer distances to get to different locations. I would say 30 or 40 hours probably.

Q. A year?

A. In our aircraft, you know. Yes. A year.

Q. Okay. Now, does that --

A. I can, I can look it up and give you a better number later on. And I'll do that and pass it on to you.

Q. Okay. That'd be great. Does that include their training, their time doing training?

A. Yes, yes.

Q. And of that ballpark number 30, 40 hours, whatever it is, how much of that is spent in training? You know, recurrent training, is it like five hours of going to burn holes in the sky and learning all this stuff? Is it an hour? Is it --

A. You know, it's going to depend a little bit on, again, on the different units and how they operate. I can tell you about (ph.) Air Base Georgia where I was operations officer. I would say three-quarters of it was training and they would be giving rides

or going to air shows. So, there's a fair amount of training that goes on.

Q. Okay.

A. We have requirements for currency and that sort of thing. Plus, I can't think of any of our pilots that don't fly something else, that don't fly outside of the CAF.

Q. Right.

A. They don't just fly exclusively for the CAF.

Q. Okay. So, during that training, I know you talked about, you know, a pilot has to do a check ride every year with a check pilot. How often, again ballpark is okay, does a pilot not have a satisfactory check ride? Does that happen often? Is it --

A. No. I think we would identify him long before that happened. I don't think he'd get to the check ride portion. Imagine your best friend driving your favorite car. Okay. If he's peeling out when he leaves your driveway, you're probably going to say something to him. That's kind of the way it is with us.

These airplanes are very priceless artifacts and we do our best to preserve them, you know. It's a balance between do we park them in the hangar or do we fly them to preserve them. They're living beings just about. They're much different when you see them in operation than sitting in the back of a hangar. And so, that's why we fly them, you know. It's very different when you see one of these airplanes come to life and it gets people's attention. It makes them realize that, where we've come from.

Q. I love your analogy of a friend peeling out in a car. So, that kind of made me smile. So, thank you for that. But in the same thought, how, how difficult would it be, and maybe it's your opinion, maybe you guys talked about this, how difficult would it be for a check airman to tell one of his, I assume one of his base buddies, I assume he's doing folks he knows, their check ride, say you're not up to performance? I can't pass you on this.

A. You know, everybody is different. But again, we all communicate very well. Jim mentioned that he gets phone calls every day. So, I fully expect, and I get phone calls every day too, even when I was the ops officer and I do now. I know a lot of people don't have any trouble at all telling that to somebody. There are people that maybe wouldn't. But they would call me or Jim and we'd hear about it that way.

Again, it's, if you were afraid to tell your best friend about peeling out, maybe you'd tell his wife, kind of a thing.

Q. Okay.

A. Again, we're a pretty close group. It's not like you walk in the door and you're anonymous when we sit you in one of our airplanes to go fly. We know you pretty well by then.

Q. Okay. Do you ever, in your duties, do you oversee check pilots or the training pilots or anything or is that somebody else?

A. Occasionally. Not very often. Only when, sometimes if we have a new aircraft type somewhere or an airplane has been

grounded. So, for example, Central California Valley Wing has an L-5 that they hadn't flown in, I don't know, four years maybe. Their pilots, didn't have any pilots on it then.

I went out there. I got some currency in the L-5 in Mississippi Wing and then I went out there and flew with the pilot that they had identified to fly their L-5 who happened to be one of my best friends that I've known for 45 years and lives in Sacramento. And he flew U-2s with me. We fly KC-135s together. And he's a very experienced pilot too. But I went out and I gave him a check ride. And I talked him through the CAF procedures and we talked about the idiosyncrasies of the L-5. And he flew a check ride for me. And now, he's flying, getting experience on that airplane. I expect to go out next month and fly with him again to qualify him to be an instructor. Then he can check out people over there.

So, that's when I would generally get involved with checking out somebody or flying with somebody. I do, I do occasionally go fly with other people. Let's see. I went down to Florida Wing and flew with the pilot down there in the N3M which is basically the Navy version of the PT-17. And I'm not qualified in the PT-17. As far as the FAA is concerned, I'm qualified because I'm a single engine instructor pilot. He was very experienced in it and he needed a check ride.

And by virtue of my position in the company, I'm authorized to sign him off on a check ride. And it takes about ten seconds

sitting in the airplane to figure out if somebody knows what they are doing or not really, when it comes down to it. And then I'll occasionally go fly with some, a group or somebody just to see what's, what's going on.

Q. All right. Do your check pilots, do they have to have a CFI or --

A. Yes.

Q. -- a double 'i', ABI (ph.)?

A. Yes. Up until about five years ago, we did assign, again, this is kind of before my time in the CAF, before my time really. So, it must have been, well anyway, seven or eight years ago, some time ago. They changed the rule that all of our instructors have to have CFIs. Of course, the reason for that is CFIs do receive training in how to put together lesson plans and syllabi and things like that which are important to organize your training. And so, we wanted to boost that up.

We did, there were some people grandfathered in that had been flying because these airplanes are unique. I know with Air Base Georgia, we had a pilot who was our T-34 instructor. Actually, he was a PT-19 instructor. He'd been flying the, you know, he was a very experienced pilot. A retired Delta guy that flew F-100s in the Guard. But he wasn't a CFI. But so, he had been grandfathered in. But as of this year or maybe middle of last year, before the accident, we mandated that as of the end of this year, all of our pilots have to be CFI.

So, a couple of them went out and got their CFIs and the rest of them have been around long enough, they're not really instructing anyway.

Q. Okay. All right. For recurrent training, is there any, do you guys have any direct input on you must do this, this and this during your recurrent training or is it kind of left up to each base, each instructor?

A. Well, we do, yes. We do specify this, this and this but the this, this and this is a fairly high level. So, it's basically so many hours of systems training, so many hours of CRM and then they tailor it to whatever they need to be. It's an area we're interested in improving. We're always looking to improve. And so, again, that's why we hired the, we're asking our pilots to put the $300 a year in to the fund that pays for our director of training. And he's going to be boosting that up.

Q. Okay.

A. Because one of the things that's happening, of course, now is that so many people have grown up flying tail wheeled airplanes and that sort of thing. And so, we need to be, we can't just assume that people are going to learn it as they're growing up. We need to make sure that they do know it when they come fly with us. And if they don't, we'll, I've identified it and they learn it now.

Q. I know --

A. Just for example, I don’t have, I don't have a tail wheel

endorsement because I've been flying tail wheeled airplanes for 50 years. So, but now, it's getting pretty rare. Just about everybody has a tail wheel endorsement now.

Q. Okay. I know Sabrina talked to you about how do you define the term formation flying and you gave if they're less than 500 feet of each other.

A. Right.

Q. The day of the event, on that pass, the fighters were going to pull up alongside the bombers. And then go over the top and burn out. Is that, in your opinion or maybe you've got a definition, would you call that formation flying?

A. It should be formation flying. And that's where it was a mistake because if they had not briefed that specifically and deconflict it, that's part of the formation briefing. So, I don't know that they had talked about that in particular. So, to answer your question, it meets the criteria for formation flying. It's not the right way to do it.

I don't think that the pilots considered, I don't think that the fighters considered they were in formation with the bombers, for example, or that the bomber considered that they were in formation with the fighters. I don't think, I don’t think in the pilot's mind that it was a formation. It was, they were operating in near space. So, it's like somebody being on downwind while you're on base leg (ph.) and that sort of thing. That you're maybe in close proximity to each other but not necessarily

formation. Formation, you know, implies some sort of coordinated maneuvering.

Q. Is it just them flying laterally beside them within 500 feet or would you consider, correct if I'm wrong, but I believe the fighters were going to pull up and right.

A. It sounded to me like they were directed to go in front of the bombers. So, I think the idea was probably, again, I've never seen this happen. I wouldn't, I was very surprised when I heard this is what happened. This is not something I would expect to happen. Okay.

I would have thought it would have been intuitively obvious to the most casual observer that you don't do that sort of thing but apparently it's not. But that's just me. My, my thought, listening to everything that, he wanted the fighters to go in front of the bombers. I don't think there was any consideration given though to the spacing and that's wrong.

So, I consider it a sphere. Take a 500 foot sphere around the airplanes, that's formation. Anything within that sphere is a near midair if it's not a formation.

Q. Okay. I appreciate you helping me kind of see what you see and I appreciate that. The last question I have and then I'll turn it back to Sabrina. In one of her questions, you had said that the P-63 pilot is, you know, if you tell him, you know, be here, he's going to be here at that time. Right. You know, he's very, I don’t want to use the term target fixated but he, task

oriented. He will get there.
A. I think that's a high priority for him. I don't know that it's exclusive. I think that again having just flown it the hour before in a maneuvers package that required that, that when he hears be here, do this now. And it wasn't just do this, go do this. It was do this, kind of ready, ready, now. Okay. No. Don't do it yet. Go, now, go. He would probably, my thought is he would consider it to be a high priority to be there as directed to avoid any conflict.
Q. Okay.
A. That's what I would, that what I would think.
Q. Okay. And I just wanted to make sure because I didn't have it clear in my head what you were --
A. Does that make sense?
Q. It does now. So, I just --
A. Okay.
Q. I needed that clarification.
A. I don't think it would be exclusive. Everybody, every pilot knows that you're not, you don't want to run into anything. So, if a controller runs you into a mountain, you still have a responsibility for not running into that mountain. Right. But we do depend on our approaches to be TERPS qualified. So, we depend on other things to help deconflict us with obstacles. That would include other airplanes. So, that's what a maneuvers package does, is it deconflicts and there are also some other techniques

that people who fly in these maneuver packages do to make sure that they are clear, you know.

If you're in a 180 degree turn, you might roll the wing up and look at something. And those are things you would practice when you're out maneuvering. And then you talk about them and you brief them and things like that and that's pretty detailed. I don't think that they probably talked about it in that kind of detail.

Q. So, I guess I kind of lied. You just brought up something in my head that gave me a question.

A. That's all right.

Q. So, if I don't ask it now, I'll totally forget. We're learning through this process that during the briefing, that's kind of when all the pilots kind of figure out the sequence, the, I don't want to call it the --

A. Choreography.

Q. It's easier for you to say it than me.

A. Yes.

Q. You know, but they just find out about that just hours before they fly.

A. Right.

Q. And it seems to be kind of the norm, for lack of a better phrase.

A. That's what it sounds like to me here. Again, this is kind of a unique air show in that it's all war birds basically. We

don't have, we have a few but not very many, maybe a pit (ph.) goes out and does something, but has in the past. I don't know that we did this time. But I, I heard the briefing and it, to me, was not, I would expect that the, for somebody walking in the door that wasn't intimately familiar with FAA order 8900, which you know how complicated that is, a new guy walking in the door listening to that briefing wouldn't, he would just follow the guy in front of him and hope nothing happened. And that to me is not right.

And that's when I, again, I haven't flown. It's a pretty dense environment out here with the planes following trail. And what I would expect is them to be stacked up. Maybe the bombers to fly 500 feet under the fighters. Go over, that would be fine. But the altitude separation would be definite. If you weren't going to have altitude separation, then you better have a pretty positive ground line that everybody understand exactly what ground line you're going to. And that's not something, in my mind, that needs to be pre-briefed.

You can't just, on the fly, do it because guys will, as you've seen and you'll hear this afternoon from the B-24 guys, they thought they were flying, they were following the B-17. So, that was their kind of, they were just in trail, like flying down final but following somebody. They weren't really following a ground track. They were following the guy in front of them. They thought they were at 500 feet because that's what they were

expecting. But they were, but these, what they were directed to do is not what I, I'm sure it's not what they were expecting to hear.

Because you'll see that the fighters, the two P-51s, did not go to the 500 foot line. They, they stayed outside 1,000 feet. Why? Because that's what they were expecting. They heard what they expected to hear. And that is, to me, one of the keys to this whole thing, is, you know, that's why we have defined maneuver packages for complex maneuvers. You have to in my mind. So, the instant I heard what the directions were, I was very surprised.

Q. Okay. I promised that was my last question for this round.

A. All right. Ask any questions you want.

Q. So, I appreciate, but before I flick it to Sabrina, does anybody need a break? You all doing well? Because we've going about an hour.

MR. HEATH: Do you want to take a break real quick?

MR. LASCHE: Yes. I thought we could.

MR. HEATH: Yes. It's been an hour and a half.

MR. LASCHE: I guess I'm the only one that drank a bottle of water. So --

MR. ETCHER: So, we can go on break at 09:32 local. And back on the record at 9:39.

DR. WOODS: Okay. Just a couple follow up questions, Bob. Like I said, the second round is typically much, much shorter. I

do have a couple though. I want to learn a little bit more about your 60-1.

BY DR. WOODS:

Q. Essentially, what is the purpose of that product and to what level are you involved in its production?

A. The purpose of it is to provide overall direction in the operation side for everybody in the CAF really. Basically, provides CAF rules for operating our aircraft. So, anything in addition to the FAR. So, we have a hierarchy in the beginning of it that says hey, these are the things that, the directives that you have to follow to fly our airplanes, you know.

SMS (ph.) is the first one. Then our organization regulation which is 21-2 (ph.), unit manual, 60-1, 66-1 (ph.) and the FARs. And so, it, it fills in the gaps in the FARs for our operation basically is what it does. So, we'll add some different restrictions. Like we have a minimum altitude. Nobody is supposed to fly lower than 1,000 feet anytime unless they're taking off or landing or in waivered air space, things like that which is, that's a little bit higher minimum than what the FAA implements. So, things like that.

And then it implements procedures for our ride programs which is the air tour operators rides and the LHFE rides. My position on that is I make recommendations. It's Jim's document. He's the chief aviation officer and it says in the document that he's the, he's the primary authority for it. But I have day to day

responsibility for making sure it's implemented properly. So, if people have questions on what it means, they ask me. If they have questions on or make suggestions, I'll take them and implement them. I'll update it every year. And we kind of roundtable. We go through proposed changes and we'll also coordinate that with the standardization and safety committee changes to 60-1. Does that answer your question?

Q. Yes. So, you just implemented a fairly recent change in the form of appendix echo.

A. E.

Q. Correct?

A. Yes.

Q. And so, I guess, walk me through that process. What brought about that change specifically?

A. Well, the, specifically, the accident. Made me realize, when I heard the directions that were given by the Air Boss and I thought that's not right and then I thought well, why isn't it right? And so, I researched in more detail.

Now, I'm pretty familiar with FAA order 8900 anyway for some other things. So, I reviewed any document I could find that might be pertinent to air show operations. And I took the things that I thought a pilot ought to know before he walks in the door that this is how air shows are expected to be operated. This is how you're supposed to, these are what you can expect to do and not do and I put those in appendix E. Because again, there's very little

guidance out there.

The FAA, you know, basically, in waivered air space, the FAA waives generally air speed restrictions and altitude restrictions. Those are the major things that are waived. And over the years, instants have happened, you know, in the late '80s, early '90s. That's when a lot of airplanes were coming over from the Eastern Bloc, jets and things like that. And so, we're getting into a lot of fast moving airplanes. You're getting more people flying formation. And so, that's when they established the formation and safety team program for its industry program.

Again, you know, the FAA has to walk a fine line between regulating and allowing the operators to regulate themselves. And, you know, we don't want, they have to encourage aviation and they have to regulate aviation. So, that's the kind of line they have to walk. So, there's not a lot of guidance in there. So, FAA 8900, as I mentioned yesterday, that's actually guidance for aviation safety inspectors. It's out there to read for us but it's not very easy to pick out the things that are important. So, that was the main thing that I picked out.

The formation and safety team also has some air show guidance and I used that. I tried to consolidate it in one document. And I basically told everybody, you know, the guidance is provided to help our pilots operate as safely as possible while providing, you know, flying displays for the public.

So, you know, I put definitions in there. So, what, and I

took the definitions, for the most part, where there was a source for the definition, I put what the source was in there so people know I wasn't just making it up. This is what I expect to be an industry standard. You know, like what is an Air Boss? I took that out of FAA order 8900. What is an air show? What is, and there's, there used to be an, what's it called, advisory circular. There used to be an advisory circular on air shows and aviation events and that got cancelled. It's still available. You can still read it but it's, it's cancelled. So, basically, that means they never update it. So, I did look at that a little bit and took out.

So, that's what appendix E was to do, was to provide information that pilots could make a judgement whether hopefully what they were being told was proper or not. And so, if they wanted to say no, they could say this is why I said no. That's what the whole purpose was.

Q. Earlier Shawn had asked who you coordinate it with and you said you had sent the information to ICAS. You had sent the information to the PMI. Did you --

A. Well --

Q. -- get responses on that?

A. No. I didn't really coordinate it with them. I gave it to them as advisory. We're going to do what, this is our document. I coordinated this with Jim and our standardization and safety committee.

Q. Okay.

A. That's who I coordinated it with and received inputs from, as well as our, you know, other, Bill (ph.), our director of training and our director of maintenance, Phil (ph.) at the time. So, that's who I coordinated with internally. This is our guidance and it's out there for anybody to look at, you know. We have it on our website which, the CAF's website, which is not password protected. Anybody can go in and see it. So, it's not, we're, this is something we want to get out to everybody as much as possible. But it's, I can't control what everybody else does. I have input into it.

You know, we are trying to implement an industry-wide operators group, in addition to ICAS, that's more, it covers a lot of things, individuals flying. Anybody that operates a war bird, if they're part of this group, they'll be able to, it's a place where they can come get information about it, kind of a common, common place. That's in its infancy right now. That was, that's been, what's the name of that group?

MR. LASCHE: Professional war bird operators.

MR. HEATH: Yes. Professional operator group, war bird operators association. It's been in the works for a couple of years now trying to get traction for that. And there's a lot of benefits for that, reduced insurance. And, you know, there's a lot of people out there now that have enough money to buy their own war bird and operate it.

And these are, these are dangerous machines if you don't operate them properly. These planes were all made in the early days of aviation and so some of them have idiosyncrasies that will kill you will pretty quick if you don't respect them. And anyway, that's, so, coordinate amongst ourselves. It's our standalone document but we want to share it with everybody. And if anybody sees something in there and says hey, you know, why don't you put this in? I'd be happy to listen to it.

Q. So, have you heard back then from either ICAS or your PMI?

A. No, no.

Q. Do you expect to?

A. No. You know, when do I expect to? I, I hope to. How's that? We, because we do meet at ICAS every year. So, I'm hoping that at some point we do have a meeting about this and that, so, I'm hopeful that this will precipitate some change in that direction. So, maybe that's the way to put it. I hope to.

Q. So, let's talk about that, like the war birds association and that, that like repository of information, for lack of a better word. How often do you all crosstalk, benchmark, discuss your issues, come together as a whole group? I know you're several different entities. But as a whole group and figure out what are the across the board issues within the community and work to solve them?

A. For sure, three times a year. ICAS which is International Council of Air Shows convention in Las Vegas. Then there's a war

birds operators conference which is usually in February. It's important that these two be in the winter time because that's everybody's down time. They're getting ready for the air show season. And then at AirVenture in Oshkosh we meet. And at all of these meetings too, there's not just industry representatives but there's government representatives there also.

So, we have people from the NTSB, FAA, Air Bosses. So, those are three definite times. Occasionally, there will be groups together at SUN 'n FUN in Lakeland in usually end of March, beginning of April. And there might be some other small groups and that's for sure. So, I don't know about the other, those are the three main ones that I attend, make sure that I go to.

Jim goes too and then we send our representatives too. So, let me just mention too, at these meetings, particularly at war birds operators conference, kind of the individual groups will get together. So, that's when the FAST signatories get together.

They'll have a meeting at 6:00 in the morning before the rest of the day events. It's just a common way to get everybody in the world together in one place. We have people from not just the United States there too. We have people from Canada and Europe and other places. Not very many but there are some that attend also. So, that's a time to do that.

Q. You talked earlier about your familiarity. Like this is like your neighbor, this is like your buddy going out and stepping to something that is precious to us all. You're familiar with these

pilots. Were you familiar with this Air Boss?
A. No. I met him briefly the day before, for the weather day that we had before this accident.
Q. Has this Air Boss worked a Wings Over Dallas air show before?
A. Yes. From what I've heard. I had not met him ever before. The Air Bosses themselves are not, that's not an area that I've ever been involved with. I am now but I haven't been before. It was, I think it's been the last few years really that it's been, those activities have been codified more. The only other Air Boss, you know, I've heard Air Bosses, you know, at Oshkosh and other air shows but I didn't really know who they were.

I do, I do know, I have a friend who is an air traffic controller at Atlanta approach control and he's working on being an Air Boss. So, I knew, just the last few years, he's been working on doing that. He's a member of the CAF and I've talked to him about what he's doing to get qualified. That really was the first time I had any really interaction with anybody in the Air Boss side of things.
Q. But I guess what I'm getting at is, let me back up. For the performers in this particular accident, the pilot for the P-63 and the crew for the B-17, had they flown those respective aircraft in Wings Over Dallas before?
A. They had flown those airplanes at Wings Over Dallas before. Yes.
Q. Yes. To your knowledge, have they flown those aircraft in

Wings Over Dallas with this Air Boss before?
A. To the best of my knowledge, yes. But I don't know that from firsthand experience. That's just what I've heard.
Q. Okay. So, I guess while you were unfamiliar with this Air Boss, is it safe to presume that these performers though had encountered and were more familiar with this Air Boss and that Air Boss style?
A. Yes. I would say so.
Q. Okay.
A. From, and again, that's based on what I've heard. But I've heard enough to, I think that's what I would say. Yes. I think that's a good statement.
Q. So, while it might have been a surprise to you how things were done, for the performers who were familiar with this particular Air Boss, it might not have been as much of a surprise.
A. Again, from my perspective, it sounds to me like it has somewhat shifted in the last year or two. And because of the surprise of what happened at Wings Over Houston, which this sounds to be like that hadn't been quite that degree before. That there were some things that were happening that maybe were new. That's just my impression.

Again, it's nothing firsthand that I, I don't have firsthand information from personal observation, just from listening to the description. It sounds to me like something has shifted in the last year or two. So, if you were to ask me, do you think

anything has changed? I'd say, yes. Something changed. I don't know what. Exactly how or how much, I don't know. I think it's always been a little bit of what we call a goat rope out there. But I think there's always been an attempt to make sure there is altitude separation, for example, or some pretty definite lateral separation between aircraft, particularly ones of dissimilar performance.

Q. In your opinion, are CAF pilots comfortable in voicing concerns and bringing their feedback to you?

A. I think so. I do get some feedback that I'm easy to talk to and people appreciate my help because whenever somebody calls me about something, and I emphasize to people, if you've made a mistake, let me know. And we're going to fix it. We're going to fix it and we're both going to learn how not to have that happen again. That's my attitude about things. And I get calls all the time about little stuff, stuff, you know, administrative stuff that isn't done right or I did this and I guess I shouldn't have. And I say, you know, you going to do it again? No. Okay.

Well, so, my impression, my thought is that I'm approachable and I think the same thing for Jim because that's why we get calls all the time. If somebody doesn't want to talk to me, they'll talk to Jim. You know, a lot of people, Jim has been doing this a long time. So, they're more familiar with him maybe. I've been doing it a while too. But there are people that don't know me that well and generally they'll call who they're comfortable with.

But, and I think both of us have a reputation for not getting too, we want things to go right. You know what? We're an all-volunteer group and I'll say this right now is that I am continually impressed about how much our volunteers and our pilots want to do what is right. And that's why they call me so much to ask me how do I do this, what do I want to do here? They want to do, it's very rare that we find somebody that's, they're the lone wolf out there. We had one a couple years ago and he's not flying with us anymore.

Q. Last, really the last question I think I have and that is, for this round and then we'll conclude after I hand it back off to Shawn. How do you go about your data collection then? Like for instance, in this new appendix to your 60-1, how do you know it has been implemented? How do you know it's working? How do you collect and then be able to decipher your data as to what's going on out there amongst all your units?

A. Right. So, it just got implemented. So, initially, I called the operator, the operations officers and talked with them personally and make sure they knew about it. Sent emails out to them, asked them to call me when they go to air shows which they have been doing. So, I've been monitoring who has been calling me and watching who is going to air shows.

Again, it's sort of a long term thing. So, what I, this is the plan. It takes a while to implement these things because, as you can imagine, there's not that many of us that have a lot to

do. And so, but part of annual training for senior pilots will be, I'll put together a test. It will be a multiple choice test initially that will pull things out of this appendix to drive them into it. So, I'll ask what's the definition of an Air Boss or something like that.

And they'll have, you know, unless they've memorized it, they'll go and look it up. Because, and they'll take that test. And we use, we have an automated system. The test is all electronic. They can do it on their computer at home because everybody is spread around. They'll take the test. And when they've corrected it to 100 percent, they'll get a certificate that says that they've done it. It goes into our database. I'll get an email that they've done it. And we're going to add a block in rally point for senior pilots that they, the date that they accomplished this.

So, that'll be the feedback that they've done it, looked in here. And then I'll gauge how much feedback I'm getting on how lousy the test was, for example, or that sort of thing. So, that's how I will collect the data and talking to people. Does that --

Q. That is a great way to be able to determine your pilots' exposure to the information. The changes that you have made are for a reason presumably. I'm going to assert that the --

A. Right.

Q. -- reason is to increase safety. How do you know, what is

your quality control metric? What are you expecting to see --
A. Well --
Q. -- that you have a safer operation?
A. No accidents. There's no other way really to do it that I can think of right now. But that's, I mean, it's a good question and that's something that we'll be evaluating. How else would you measure it? Because this is such a, it's a pretty rare occurrence what happened. It's a real one off. From what I can see was there was, again, as I mentioned just a little while ago, it seems to me there was a little bit of a change in behavior on the Air Boss side as far as, and I don't know, it sounds to me like it was a gradual drift toward doing some things that were a little bit different. So, a change in behavior. Because what I, basically what I've done now is given, hopefully given people enough information, consolidated, where it's easy to get to, that they know when to say no. Having to say no is a pretty rare occurrence.

It's like in the flying world. Saying no to a controller, I'm not going to do that. That doesn't happen very often. You're told your whole flying career that you can do that but it doesn't happen very often. And I don't know of a metric to tell other than emphasize it through webinars, you know. We've got other training aides, other ground training with our, that sort of thing. So, it's to be determined I guess is the way to put it. It's a good point and I don't have the answer to that. Maybe, and

if you've got somebody to do it, put it in your report because I want to hear it. Okay.

DR. WOODS: Thank you. Thank you, Bob. Shawn, you're up.

MR. ETCHER: I only have one set of questions. You've been a great help. So, thank you. Sorry we're running a little long here but I do appreciate everything.

BY MR. ETCHER:

Q. This new guidance you put out, appendix E --

A. Right.

Q. -- is in effect now or --

A. Yes.

Q. Okay. So, are there any prohibitions that were added to appendix E.

A. Yes, yes. There were. So, I summarized it in FAA guidance. Let's see. So, prohibitions. Some requirements in here. Pilots have to, if they're going to participate in formation activities with non-CAF pilots in waivered air space have to get approval from me or Jim. That's one of the requirements in there and I've had several calls on that already. Formations that include CAF aircraft are not authorized to perform formation separation, formation configuration position changes involving separation more than 500 feet, rejoins, crossing maneuvers and opposing maneuvers unless participating in an approved maneuvers package. So, that's a prohibition right there. So, that, so, that'll be on the test.

Anyway, so, if somebody is following the guidance that's out

right now and they're told to go down and cross in front of the bombers, they should know to say no. Okay. That's in here.
Q. So, before you continue on, on that little topic there, they should know to say no. But during an air show, that's going to be kind of hard.
A. Yes.
Q. So, and I know you've sent this to ICAS and others maybe expecting to hear something back, maybe not. It's still up in the air. But have you directed or empowered your units when they're going to these air shows to explain that to the Air Bosses, saying we cannot do that? Because correct me if I'm wrong, Air Bosses are the ones that kind of design the sequence. Right?
A. Not generally. I mean, design the sequence. See that's, they, well, again that's where I'm still learning about. I don't know all of what the Air Bosses are taught and how they're supposed to do things. I would have thought there'd be more direction than what I've heard so far on how to do it. I'm sure that's coming, you know. Most of our regulations are written in blood and unfortunately, that's just the way that it is.

What I have done in this direction, and I expect to modify this. Okay. This isn't one time, throw it out there. This is a living document and we'll modify it as things go on. I said pilots shall not, this is a direction. So, this is a directive. Pilots shall not accept Air Boss instructions that deviate from preplanned maneuvers and altitudes, except to coordinate recovery

from abnormal conditions.

So, that gives them hopefully the authority to do that, the knowledge to say no. I still think we're going to have a problem. It can be a problem based on understanding Air Boss instructions in the briefing. I think, I think that needs to be fixed and this is what we'll be continuing to talk about. I don't know how to fix that just yet because that's not in my, you know, area of responsibility directly.

I can basically not to go to air shows or they can go to air shows. I don't want to get in the business of having to know what each Air Boss' idiosyncrasy is and you can go fly under this one but not this one. That's, that's not workable. So, it's going to have to involve other, if we want to really change things, it has to involve everybody from the FAA to ICAS to FAST maneuvers to us.

I mean, ultimately, we're the ones that implement but there has to be an overall authority that says this is, this is what you will do. And ultimately, there has to be, you know, what do I want to say, ramifications if you don't, you know. There has to be consequences if you don't follow but that requires somebody to know what they're supposed to do to begin with. There has to be some sort of supervisory authority I guess.

You know, when you have complicated situations or safety sensitive environments, you can't leave it up to one level of safety. You have to have supervise, you have to have somebody, at least one level of supervision. And then you have to have

somebody that supervises a supervisor. So, there's three right there at least. And right now, there's not that. There's the beginnings of it, I think, with ICAS and that's why ICAS got started. But again, I don't think there are the resources at the national level ultimately. That's where it has to come from.

MR. ETCHER: And that helps me kind of understand a little better. So, I appreciate it. I know we went a little bit long but that's all I have. So, thank you so much for your help in educating me.

MR. HEATH: Okay.

DR. WOODS: All right. Well, typically, we end with kind of one wild card question which is you had a little time now to recognize that we were coming and that this has been going on for a while.

BY DR. WOODS:

Q. Is there anything that we didn't ask that you thought for sure they'll going to ask this? I better get ready.

A. Well, no. You guys have done a great job I think. You know, the only thing, my observation is both of those airplanes were where they were told to be when they were told to be there. And that's, that's the nut we need to crack.

So, we need to empower people to be able to recognize when they're not supposed to be somewhere and others to not put them in that position because we're not going to change the visibility out of these airplanes. You know, they are what they are. They're

historical artifacts and that's not going to change. So, we have to operate them and recognize those, recognize those limitations. So, that's the only thing I, that's the only thing I would want to say to you and I think we talked about that already.

I think you understand that's where I'm coming from. That's my position looking at it, is both those airplanes were where they were told to be, when they were told to be there. And that's the part that needs to get fixed.

DR. WOODS: Well, thank you very much for your information and your time. We have gone a little bit long but we appreciate everything that you've had to say in helping to educate us on your process and on essentially the interface between Commemorative Air Force and air shows. With that, we are concluding at 10:11.

(Whereupon, at 10:11 a.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 22, 2022 Interview of Bob Heath
ACCIDENT NO.:	CEN23MA034
PLACE:	Dallas, Texas
DATE:	August 10, 2023

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.



Brenda Field
Transcriber

On-Scene Interview: James "Jim" Lasche

Representative: None
Date/Time: November 17, 2022 / 1300L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview James "Jim" Lasche stated the following:

Jim Lasche was the Chief Aviation Officer, Commemorative Air Force (CAF) for the last 2 years after doing double duty as the VP of Safety/Operations and Maintenance for 5 years. His duties include managing the operations and maintenance of a fleet of vintage World War II airplanes dispersed around the country in 80 different units. On average,130 of the 180 aircraft are flyable. The airplanes were owned by the parent 501(c)3 nonprofit organization American Air Power Heritage Flying Museum and operated by volunteers of the CAF. Flights were conducted as day/VFR-only Title 14 Code of Federal Regulations (CFR) Part 91 operations.

He was one of only a handful of paid staff employees and manages a library of manuals online, including but not limited to: GOM (60-1), Maintenance Manual (60-3), Drug and Alcohol Program Manual and SMS Manual. The manuals are reviewed and revised annually, if required. The structure of the organization and manuals is similar to the USAF.

The majority of the pilots were either current or retired airline pilots or current or retired military pilots. Pilots must have a pilot's license as a minimum to fly for the CAF, most held a commercial pilot rating, if not an ATP. Additional experience requirements were set for different airplanes based upon the complexity, e.g., tailwheel, high performance, multi-engine, tail wheel as well as the type of airshow.

The accident pilots were all well-known, experienced pilots each with over 20,000 hours of flight time. The P-63 pilot had flown in over 100 airshows while the B-17 pilots had flown over 25 airshows each.

On the day of the accident, his duties were focused on Wings Over Dallas airshow preparation to include attending the briefing and interacting with city and airfield's emergency response personnel and ARFF. His duty station was in the command center trailer, and he was inside when the accident happened.

He had attended the briefing the day before, but the practice day had been canceled due to inclement weather.

The "Air Boss" addressed risk management through the collective pre-show brief that all pilots flying that day were required to attend. Following that, pilots flying specific types of aircraft briefed together for their events. He noted that, fighter and bomber pilots in the same event did not brief together but performed their own risk assessments.

They had done multiple tabletop exercises with all emergency response entities and first responders – every two weeks beginning in September. They immediately put that emergency response plan into action and ARFF was at the crash site within a minute and the fire was out within minutes.

When asked about possible recommendations for improvements, he responded better stopgaps for run-in lines and altitude separations. He acknowledged that "calling audibles is the nature of the beast", but rides should be limited to before and after acts.

He said that the P-63 pilot flew in the "TORA" act but in a different type of airplane (a T-6 modified to look like a Zero). The B-17 pilot flew prior to the accident flight as a pilot for passenger rides.

The B-17 copilot flew two passenger rides as pilot prior to the accident flight.

The B-17 flew in "TORA" act and 2 passenger rides prior to the accident.

It was the first flight of the day for the P-63.

Interview concluded at 1352L

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 12, 2022	*	Accident No.: CEN23MA034

Interview of: JIM LASCHE, Chief Aviation Officer
Commemorative Air Force

Dallas, Texas

Wednesday,
August 9, 2023

APPEARANCES:

DR. SABRINA WOODS, Investigator
National Transportation Safety Board

SHAWN ETCHER, Investigator
National Transportation Safety Board

BOB HEATH, Director of Operations
Commemorative Air Force

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I N T E R V I E W

(8:19 a.m.)

DR. WOODS: Good morning, gentlemen. It is August 9th, 2023. The time is 08:19 central. Thank you for taking time out to talk with us. I'm Dr. Sabrina Woods. I'm from the National Transportation Safety Board. I'm a Human Performance Investigator with the Board.

The Board has been congressionally charged with determining probable cause in aviation accidents and significant incidents. And so we are here investigating the November 12th, 2022, mid-air collision between a B-17 and P-63. With me is Shawn.

MR. ETCHER: Good morning. Shawn Etcher. I'm with the Operational Factors Group with the NTSB. Thank you again for coming in to educate me today. I do greatly appreciate it.

DR. WOODS: And serving as a member of the Ops Group is Bob. Will you introduce yourself, please?

MR. HEATH: My name is Bob Heath, and I am the Director of Operations for the Commemorative Air Force.

DR. WOODS: Thank you, again. So, Jim, again, you are in here because you have a wealth of information. Shawn and I are pretty new to this arena and so we are just trying to get our ducks in a row and figure out more about the Commemorative Air Force, figure out more about the air show community in that world, and the operation that you guys work in.

While conversations like this are routine for us, we do this

for a living, we recognize that it's not routine for you so please take the time you need to answer. Recognize that I don't know is a perfectly acceptable answer. If you don't know, don't feel like you have to make it up on the spot. We don't need that. Just let us know that you don't know, and we can move on.

If you don't understand the question, please ask for clarification. We will do likewise if we don't understand what you are trying to tell us. If you need a break at all at any time, please don't hesitate to just let us know and we'll do so. We'll, you know, turn off the recording and we can get that done. I'll also try to remember to check in with you on occasion and make sure you're still good to go and that you're doing okay.

This interview is being recorded. That is to ensure that what you have to say is documented perfectly and exactly. The recording will be sent to a professional transcriber. It's only the transcription that goes forward into the docket.

Do you understand or are there any questions about that?

MR. LASCHE: No.

DR. WOODS: Okay. Excellent. So, for the record, if you would please state your full name and spell your last.

MR. LASCHE: It's James R. Lasche. The last name is spelled L-A-S-C-H-E. I'm the Commemorative Air Force Chief Aviation Officer.

DR. WOODS: Okay. And typically we afford you -- you are allowed to have one person with you to support you through the

interview process. I see that you don't have anybody here, but just recognize that that is something that you can avail yourself of and if at any time in -- going forward if you feel you need to go get somebody just let us know and again we will pause, and we can make that happen.

MR. LASCHE: I understand.

INTERVIEW OF JIM LASCHE

BY DR. WOODS:

Q. Awesome. So, with all of that, the first thing is the easy questions to get out of the way is just to get a -- know a little bit more about you. Can you give me like a high-level overview of your work history all the way from, you know, essentially when you came into the world of aviation until now?

A. Sure. So, I went to ROTC for four years at West Virginia University and that's how I got my commission and went to pilot training right after that.

So, I was in the Air Force for 23 years -- I flew the whole time and then retired in 2008. Then I took up a role of -- I volunteered for some aviation organizations as a museum program director or stuff like that just to get experience in the warbird industry. And that -- I did that for a few years. My wife was gracious enough to say you look -- you worked 23 years in the Air Force I'm -- she was still working, and she said look take some time to do something you want to do. And this -- my love for aviation and World War II aviation was kind of important and I'm

-- I was happy that she allowed me the opportunity to do that.

Having the military retirement helps working for a non-profit organization. So, I came out with the CAF as the Director of Maintenance and then I worked that position for a year and then I was the Director of Operations, the job that Bob is in now for another year. And then the last six years I have been the Vice President of Safety Operations and Maintenance or aka Chief Aviation Officer.

Q. Okay. So, going back to, what did you fly in the Air Force?

A. I flew C-130s the whole time.

Q. And do you currently maintain any additional FAA certificates or ratings or anything like that?

A. So, I have an A&P license and I have a CFI that I keep current too and I got the CFI through military competency both single-engine and multi-engine.

Q. And I'm sorry, can you -- I know you transitioned into working for the Commemorative Air Force, but do you know about -- what year did you start working for them?

A. Oh, I know exactly what year. I started in October 2015.

Q. Okay. And who is your immediate supervisor?

A. David Oliver right now. He's the Chief Operating Officer and that changed within the last couple of years. He used to be the CEO but now it's the Chief Operating Officer. He is like the second in command of the company and he needed to -- they needed to put some people under him to supervise so I didn't, I mean, I

didn't mind but he's a good guy so.

Q. So, you've been doing this for a while, can you give me just a -- like a high-level account of day in and day out --

A. Sure.

Q. -- what are your duties? What do you do?

A. I'm happy to because I'm pretty proud of the work that we have been doing here. And I wanted to let you guys know that when I came on board like I said I wasn't in the current capacity -- the role I'm in now but two years later I was.

And when I was in charge -- of all of the maintenance and all of the operation for the CAF it's kind of daunting. We have 85 units out there, 175 airplanes and almost all of them are 80 years old being flown by 70-year-old people, like, joking.

So, I mean, I think the thing that's interesting about the CAF was I, like I told you, I wanted to get into -- some way into warbirds. And, you know, coming into the organization I thought how can I make this better, right, like everybody does when they start a new job?

And I'll have to tell you the first year we had a lot of accidents and incidents. That's how I got to meet all of the NTSB folks that I know to this day. Now, there were no fatalities but still some of them were, you know, it's got to be a serious enough accident to involve somebody from the NTSB. It's not just the FAA showing up or others. So, we had a lot of problems, and I took it upon myself and I -- and like I said with the help of Bob who has

been with me since the beginning even as a volunteer -- in that capacity to change things. Right? To make them better.

And your -- like you the Air Force background I've like -- it's always improving processes and making things better. So, I took every opportunity there was an accident or incident to put out a safety bulletin and say, look, my job is to get -- and my primary job is to get ahead of the next accident or incident.

I have to figure out what it is before it even happens, right? Then I've got to avoid it and do what I have to do. Sometimes in the CAF world that -- they look at me like I'm the FAA. When I show up at a unit, they're like oh boy headquarters is here. And some of them will say that I'm the guy taking the fun out of flying World War II airplanes and I'm -- that's not true but I'm trying to make it last for a long time.

So, we've basically -- every time we had something happen to us, we changed some programs. Maybe it was our regulations, our operating manual, our SMS program, whatever, we made the modifications to change it. In 2018 -- so it was 2016 we had a lot of accidents -- gear ups, you know. 2018 -- 2017 was a good year.

2018 was a year we had really one major accident and that's the Bluebonnet Belle, the C-47 that caught on fire down in Burnett, Texas, five years ago -- almost to the day. And the -- everybody got out and then the plane caught fire and burnt to the

ground. And it was like -- and I had just visited that unit the day prior to talk to them about landing an airplane gear-up -- a trainer with two instructor pilots -- typical, right?

And I was down there, and they were getting ready to take that plane up to Oshkosh, they were excited, you know. So, I was like, you know, they were planning on taking -- that was one of the C-47s we were taking to Normandy, France for the 75th anniversary. It was -- they were pretty excited to go and the next day I get the call -- I'm down there at 8:00 in the morning for the accident. That was Josh Cawthra who came on with -- that's how I met him through that one.

The -- so, what did I do after that, I was like, look we can't wait for the final report to come out, right? We have got to take action and see what did we do -- what could we do to avoid this happening in the future whether it's with qualifications, training, all of those kinds of things.

That's what I take on as a role -- as a task with the Commission. And we changed a lot of things. We had like and it came to CRM, you guys are familiar with Crew Resource Management. So, we changed a lot of that, and we made a mandate that all -- at annual ground training we would have six hours of CRM training in your airplane. And then everybody went nuts. They were like, you can't do that, you know.

And they are all volunteers, and they are all well intended but anything that involves change or a computer or new is going to

cause them to go up and locked, right? So, we changed that because I got a -- our insurance company came down and said look you're going to get a safety audit.

And the safety audit was a guy named Kirby Smith. He was a Chief Pilot for Cessna and knew nothing about World War II aviation or radial engines or anything. And he showed up and he was the nicest guy and he said, look I have been charged to do a safety -- an external safety audit and I welcomed that.

So I said sure, and I sent him out to three different very distinct units, large, small, medium size and he came -- he -- his questions were just -- would -- kind of blew me away because before I sent him out on the road he goes, well let me just get some notes. He's like a B-29, he goes what's the ground school for a B-29. And he goes isn't it like three months? And I go, no, it's a Saturday like everything else, right, because this is where the people come out and I'm making him take extra time to do CRM training on top of that and most of them are like, man, I'm an airline guy.

I do that for my day job already, but they didn't do it in this -- in these makes and models of airplanes. That was important to me. We changed that and I have to say our -- it helped. I would say we got a lot of -- we made them watch videos and discuss and at the unit level certain situations that related to their aircraft and the one they were operating which is all you need. That's another challenge I have.

It's not like a fleet of King Airs out there that we are managing. It's all different airplanes. Some crew served, some single pilot, two ride programs, you know. A drug and alcohol testing program, we have that too. That's all under me. And it was important for me to stay, look whether we have a problem or not I need to get ahead of the next one. Here is what we're going to do to fix it.

Now, I can't -- you know how it is, I can't verify that there was an impact, but I can just look at the -- our insurance didn't go up for years after that because we didn't have any more accidents or incidents.

Nine-O-Nine happened -- the B-17 up in Connecticut. You guys remember that. That was a big deal and everybody -- everybody in the CAF -- it's customary to go like oh, those guys they are the ones that did that. Or they weren't doing this, and they weren't doing that. And I'd look -- took a different look at it and I said, you know, there are some things that we need to improve based on that accident even though it's not ours it's the warbird industry.

We are all connected and we're the 800-pound gorilla in the room for sure. How about -- I looked into that -- I wasn't part of that investigating team. I offered my services only because they have me on file up there, but I knew that if there were some things on documentation of training for ancillary crew positions like safety observer, things that just was something people just

signed up and did and got training and then they went and flew. But we didn't document how they did that training. We didn't document how much training they did. The Collins Foundation didn't do that -- they did -- they had people that didn't even know what the SMS program was, you know?

So, that's when I said, look I've got to be careful because I'm dealing with, you know, volunteers out there at all of these different units and they could join next week and we have to make sure they get the proper training and instruction on what they need to know to be able to carry out the mission safely, right? That's the number one priority.

So, we have always done that at every step, and I have to say Wings -- though I -- not to -- hopefully, I'm not going too long, but the Wings Over Dallas accident was a real eye opener because the -- it wasn't directly related to, like, and I'll tell you that when Clint came down the maintenance on both of those airplanes was impeccable. He was like, man, you know, I -- and even Jim said I don't see 135 operations that had this level of detail with a Rally Point which I can show you later how we track training and how we track hours flown and maintenance. All of that stuff was something we changed in the last six years to be able to improve our processes.

The accident was kind of like, wow, here we have all of this footage, all of this video, overwhelming amount of information instead of just going out to a field and saying how do we work

this problem backward? But it was one of the things where I said what can we do differently to change this, right? Because I'm not going to wait a year and a half for a final report to come out.

So, and this is primarily Bob's handiwork. We got together and put out an airshow guide. This is a guide for pilots to fly in Warbird air shows. It's our -- it's attached to our internal general operating manual. It's an appendix and it gives them guidance of what they can and what they can't do. To ask the right questions. It was really a guide to empower them to speak up and say, I don't understand. I don't know what altitude you want me at. I don't know what run-in line you're at.

Instead of just going, well, I'm new to the warbird industry and I'm so excited to be flying an airplane in an airshow, I'll pick it up on the way out the door. You know, that's not the way it's supposed to be. And that was why it was important to say, look you got -- this is a guide to tell you how to fly in an airshow. Don't accept these kind of clearances if you think there is a conflict. If you have a question about what it is, answer it, knock it off, go to the holding pattern, you know, you can do all of those things, right?

That's something that I wanted to be -- we wanted to be clear and when we put this together and like I said Bob did a lot of the legwork on this thing. It was not well received, of course, because it's new, it's change, it's -- and when I -- and I'll be honest with you, everybody knows that we are both Air Force guys

but I'm not into over-regulation. I -- that's one thing I hated about the Air Force, right. So, I'm always -- but I'm the -- if there's a -- if you identify a problem then you need to take action and do something about it. And I tell that to my folks when I go out to visit these units in the field and I'm out there all of the time mixing it up with them because it's important.

So, I'm kind of the face of the CAF. A lot of people in this building don't even leave. And I walk out there, and I'll sit in front of 200 people or 20 depending on the size of the unit and I'll tell them, I'll say, just close your eyes for a minute, tell me where you think the next accident or incident is going to come from within the CAF. You don't have to say it out loud, but I want you to think about it. You know, and I say don't tell me but think about what it is.

And then I said, now, what's the next accident or incident going to come from out of your unit? And then they all open their eyes, it's kind of funny to watch them do it because they're like -- they're surprised that I'm going to ask them about that because they are always like oh yeah that unit over there, those guys, you know. They're not doing it right or whatever, but when it's about their unit and I told -- and I end the conversation this way. I say, look you have -- you don't have to come tell me about it.

I have an anonymous safety tip button which is a direct email to me if you don't feel comfortable, but you have to do one thing for me. You have to take some form of action. It could be

notifying that pilot you don't think is up -- his proficiency isn't up to speed. It could be talking about a mechanic that you think is, you know, getting too old to keep working on the airplanes or missing things. Or talk to their operations officer or the maintenance officer. But you have got to do something, not just to take the pressure off of you but to affect the change that needs to happen because it's so easy to identify the problems, right? But taking any action to make them -- to fix them, you know, that's a whole another game.

And we are dealing with a volunteer organization here which gives me extra challenges. Not like I was in the Air Force, you know, this is totally different, but I have to say it's still effective because we have a lot of regulations that -- for flying these airplanes, and then we put our restrictions on top of those regulations. Obviously, we can make them tighter, we can't back them off, so we do that, but we do it with the purpose when there is something that needs to change, not just for change's sake.

So, that's why like what we said -- over-regulation isn't always a good thing and it's -- in the Air Force it was over-regulation because I dealt with a lot of Navy folks too and they were always amazed at how our manuals are twice as thick. So, that's my -- that was the way I came up through the CAF and I still -- I am just that way. I mean it's -- I don't -- I'm not doing this job because I need the money or whatever, it's just I tell people I have the best job in the entire world.

Is it frustrating at times? Absolutely. I mean I deal with volunteers, that's like herding cats and they call me all hours of the night and up until I turn my phone off because some of them have insomnia. I turn it off at 9:00 and a lot of times it'll be -- they will call, and they will just want to vent about something or complain about something and then I always go, what do you want me to do? And they go, nothing and then I go, couldn't we have had this conversation at 8:00 the next morning and they go, yeah.

So, my -- even when I'm on vacation my wife will tell you we are driving in the car going somewhere, the phone will ring and she'll be like come on, you're on vacation, turn the damn phone off. And I said you know the problem with that is most of these people are taking vacation time to come out and fly the Air Force Mission, volunteering their time and taking vacation to do it, how can I not answer the phone and give them the -- whatever they need or give them guidance on what to do if something is wrong with the airplane or something is happening at the air show.

So, I'm kind of always on call. Bob is too. I always tell people in the CAF, everybody gets upset because the OPS team, all of my folks, their cell phone is paid for by the CAF and everybody gets mad about that. They are like, man, I have to pay for my own cell phone. I go, believe me, I would rather pay for my own cell phone too because then I would -- I wouldn’t have to answer it 24/7. So, long-winded answer to your question but hopefully I covered some ground.

Q. Yes, you did. Thank you. I do though have a question about -- you mentioned quite often it's a volunteer force.

A. Mm-hm.

Q. So, because of the inherent nature of that how do you -- what is your -- I guess, what is your process for ensuring that you are reaching everyone in your volunteer force with the same, consistent messaging?

A. That's a great question and what you're really talking about is compliance, right? Just because I put rules and regulations out to a volunteer force, what's to say they just decide not to read them, you know? Well, we have a process in place for that. They have to take an annual test. You ask anybody in the CAF, hey, do you guys have an SMS program? If they go, no, we don't. They have to take a test on that, and they have to take a test on the maintenance operations. They have to watch a video of me yakking for 20 minutes and all of our -- all of the people from my group talk about the SMS program safety and how it's important. Every year in January we put a new video out.

I call it our ground school kick-off video. So, we have to be able to -- I have to be able to reach everybody and I rely on the folks in the unit that are in the key positions -- the operations officer, the maintenance officer, and the unit leader to deliver that message.

Now, we also have a program and a Rally Point where if a pilot goes and flies and they're not all greened up, meaning they

have their medical, you know, check ride done, training done, CRM training done, all of that stuff if it's not completed they are red on one item or two they will go to fly an airplane and they'll check it and they'll be like, hey, I'm red they need to go in and fix it.

And then I put the pressure on the OPS officers every month. They have a compliance report saying, look this is -- this validates all of the things that are with our airplanes and our people. So, we don't -- you got to remember we're not -- I don't have a command in control operation center with a big board with the planes flying across it. They think I do and I'm okay with that.

I call it soft LoJack, right because if somebody does fly an airplane and they forgot to check Rally Point before that flight to find out if they were all greened up it will send me an email and my team. We get an -- and then we call them and we're like -- and they go oh man, I, you know, I made a mistake. So, we have been doing that for over -- that Rally Point has been in place for almost two years I think.

About a year we have really hammered home the compliance because there is another thing that I have to worry about and that's the insurance industry, right? I don't want to be pushed out of this game. I don't want the rates to get so high that at the end of the year when they do a risk-reward management, they go, eh I don't know about these warbirds. It's too risky, you

know.

So, by keeping the rates down and I was on a streak with -- until Wings Over Dallas because we were really doing really well. We had one P-51 that ground looped and that was it for like four years and we were getting -- our rates were going up zero. That's unheard of in the insurance industry. It's usually 5 to 8 percent. So, that was unfortunate that it happened. But then I have to say the airshow guide was something to avoid that happening again.

But we're just addressing that accident, right, that's what I do every time. I can always think about what there is out there that I am not paying attention to, and we have spent a lot of time thinking that through. Our team brainstorms this all the time. It's like, man, what's going on and when I have -- unfortunately when I visit the units I usually -- they are not just doing great and hitting on all cylinders.

Usually, there is a problem. Otherwise, I wouldn't go there. And there is a problem with somebody from the operation side or the maintenance side and we have to address those constantly. And that's why I have -- that's why we are on the road a lot. I'd -- I feel bad for some of the units that are doing great because I'd love to show up and hand them some of my challenge coins and all of this other stuff, but I spend more time visiting the problem units that have issues. And that's how we keep everything -- I tell every unit one thing.

If they are doing something that's -- if they're not in compliance even if it's an outfit with only 10 folks then you run the risk of ruining it for everybody else. All of the other units that are doing it right are going to pay the price whether it's insurance or, you know, the FAA stopping and saying, you know what, stop flying all of these dang airplanes it's ours to lose really. That's what I tell them.

Q. To confirm that -- what you said before it's Rally Point?

A. Rally Point, yes.

Q. Is that I'm assuming a computer software system?

A. It's cloud-based, yes.

Q. Okay.

A. It used to be -- we had something on a server, and it was -- the server-based program was always going down. This was from like years and years ago but because you have got a bunch -- you don't have a fleet of King Airs out there, there is all these different airplanes and all of these different people and all these different locations it was really hard to manage the maintenance and operations.

So, we developed Rally Point and actually to be full disclosure Bob is going to roll his eyes, but if you look at it when I -- I'll show it to you later. When you pull it up on the screen it has all of those -- the GIs getting off at Omaha Beach out of the LST, it was -- I oriGenally called it Overlord and that didn't go well with the general staff. They said that sounds too

heavy-handed and I go well to me it's all-encompassing, it's bold, it's new and it's here and we need it for compliance. And they made me change it and they said come up with an alternative name.

Rally Point was what I did, and I wasn't happy with that, but you know what sometimes you have got to, you know, give up a little bit. People still call me though every day because I still have the picture on the screen and they are like I don't understand, you know, new people come in and they go why is that on the cover of the website? But it is nice.

It's cloud-based and one last thing about Rally Point is we -- when we developed it, it's evolving, right? So, it's ours and we own it and the neat thing about it is and I do pay a company called V1 Labs. He is also a CAF member, but he helped develop the software to make it run which was an insurmountable challenge and we update it every -- all of the time.

We are constantly coming out with upgrades where people would be like, you know, it would be nice to know if there was a squawk on our maintenance for that airplane and then he will build it into the program and then we'll send out an email to everybody or do it with webinar saying hey, changes to Rally Point, it now does this.

You know, and it's -- we have a -- I have a new pilot fee that everybody has to pay every year. That’s another compliance thing so by doing this I know who is doing it right and who is not. Now, they can't go in and pencil-whip a lot of this stuff.

They can't just go I'm going to green myself up and then go fly today. It has to either come from one of us at the staff -- at the headquarters or the Operations Officer or the Maintenance Officer at the unit. So, they are empowered at different levels to be able to make some changes, not all, but we have the authority to do it all.

So, we will get calls a lot of time and, you know, and I'll be honest with you there was a time when people were like, look I didn't watch your webinar. I don't really know how to use this system. This was like a year or two ago. Can you just go ahead and change it -- me to green and get -- put this date in for my new medical or something like that.

And I used to do that initially because it was a learning curve and then after a while, I just go you need to watch the webinar. And they don't like that but I'm forcing them to watch that Rally Point webinar that we have out there that basically says, here is how to use this system.

So, with volunteers it's a challenge, right? Because you can't say -- the only thing -- the only carrot and stick we have is the airplanes, right. So, I can tell them they can't fly, and I have removed some people's flying privileges for not complying. You know, it's not fun but usually it's for doing something that against our regulations and we have a Stand of Eval Board -- a Standardization Evaluation Board that I'll chair when it comes to removing somebody's flying privileges.

So, it's not just Jim Lasche saying you're done, you're grounded. We have a Stand Eval meeting, and they might say, hey, let's take that person down for six months, a year, permanent, and then they vote on it. It's a staff of 11 people and I take their advice.

Now, I don't usually override them, but I may adjust the terms maybe instead of nine months, six months, or nine months -- I usually don't make it heavier than they do but that's a nice system of checks and balances, right? That's part of our whole safety program too because it's nice to have a committee.

It's not just one person in charge of everything and, you know, smacking their hand on the table. It's important to be able to bounce that stuff off of those folks. Bob interacts with them on another level -- the Director of Operations I should say for the recording. He works with them on almost a daily basis on approving instructor pilot new packages for instructors because really the instructor pilots out there flying are our last line of defense, right? We rely on them to do all of the training and that's how it's going to propagate through the units.

So, we have got to make sure that person is the right person to do that training even if they are only one in the unit. Bob will run -- will shop them around through the stand evals and say, hey, so and so wants to upgrade to be an instructor in this airplane and they chop on it. They are all experienced pilots in CAF, and we value their opinion. But they may say, I think he

needs more hours and this or, you know, they will make recommendations.

Bob will take it up for advisement and then he will either approve or deny it based on that. So, I only get -- I sit on the Board with him as -- and we don't vote, we are just advisors. So, when it comes to removing somebody's flying privileges that falls to me. If it comes to day-to-day stuff on conducting business for instructors and evaluators then it goes through Bob as the Director of Operations.

Q. So, you mentioned you do travel a bit to, you know, engage with the different units and sometimes deal with problems and you told us about this Stand Eval that is a tool. What other tools do you have to deal with either pilot problems or maintenance problems?

A. So, and they are always ongoing. There is always -- like I always say, there is always a problem out there somewhere, right? You know, and I'm not -- I don't want my folks to be, you know, just a hammer looking for the next nail. We get units -- we will see their -- whether they are performing or not based on the hours they fly, what they're doing, how many members they get they bring in. I mean, I go to some of these units and I'm like you haven't had a new member in 10 years and you're in a major population center. How is that possible? And it's mainly because they may not want anybody to come in.

So, we have to -- I work with membership and I liaison with

all of the organizations, finances, and other things, they could be doing everything right operationally but financially they are not, you know, so I -- going out to travel I do get to visit units.

Just recently when I saw you up at Oshkosh, I didn't just drive up to Oshkosh. I didn't fly into Oshkosh. I drove up and I stopped off and visited units on the way up and on the way back. And like I said that's the one time when I visit units because they are on the course up there and back that are not just having problems, which is nice. And it's always nice to show up and, you know, let them know what they're doing well. Tell them what we're working on, and they always say we have a problem with this.

Or you know what, we can't seem to be able to find an engine for this or somebody to overhaul that engine. We take those things for action too because it's -- from a maintenance perspective the folks that overhaul these radial engines in B-12s is getting smaller, and smaller and smaller. And you just can't go to your local shop and have it done. Now it's getting few and far between and it's up to us to find the best, you know, the best vendor for that with the best warranty and the best support.

So, a lot of times parts are becoming an issue now. We help them with that too. So, what -- I was going to mention one other thing that I should have mentioned earlier is besides Rally Point we have a CAF operations website. And I'll let you guys look at that on your own time. It's pretty big. You don't have to have a

login, you don't have to have a password. You don't have to be a CAF Colonel. You just open it up and it has all of our training, all of our regulations are on there.

It's CAFOperations.org. The first thing you are going to see is a video with a play button and there is me and my staff. And that was our kick-off video. And you know sometimes we have people that just join the CAF. They may have just joined in July. Well, they will call me, and they go, hey, I saw your video. I really liked it and initially, I'm like you just watched it, it came out in January. What are you thinking, you know? But it's because they just joined.

So, the video is appropriate for anybody coming on too. So, we also put out webinars from time to time and I have -- I just talked to my Director of Maintenance before you guys came in today. He is doing a webinar on maintenance for pilots and troubleshooting these -- the airplanes. Instead of just being the guy that shows up and flies it and hands it back broken. Help troubleshooting the airplanes when they are returned to service.

We do a lot of restoration work too. So, he said, can I put a webinar out that -- and I go absolutely, make it your quarterly webinar for maintenance. I've got a training guy -- the Director of Training. I had him put out another one and updating all the new Rally Point things that we're working on. And we're constantly, like I said, that's a process improvements. These are all -- this is a dynamic situation.

It's not just we're like, hey, here it is, we're done and we're out of here. We're constantly driven to improve our processes. And we are very careful too about not, you know, muscling in the rest of the warbird industry, you know. But I am cognizant of the fact that if an airplane crashes somewhere and lands in the ocean and it's a War World II airplane it's going to affect us in some way. So, I'll look at that and I'll say, what happened? What did that unit do and what can we do to mitigate that from happening to us? Oh, that would never happen to us.

It's like, well let's take a look at it from a different -- I like the NTSB lookers. I'm all about -- I'm not just about fault. I kinda have got to do both. I'm about cause, right? What caused it? And what can we do to avoid that happening in our organization? That's what drives us.

Q. That's actually a great segue into how involved are you with other warbird communities out there.

A. So, pretty -- as -- I'm probably involved a lot. I go to the National Warbird Operators Conference every year. I have done that for eight years. That's a -- kind of a touchstone to get together and talk about safety, you know, normalization to deviance, risk management. That rotates every year. I'm on the ANNUAC Board by the way too. So, we change to a different location. It's always in February.

We also -- I also attend the International Council of Airshows, ICAS, I think you guys already interviewed those guys.

ICAS is a big deal. It's in -- the convention is always in Las Vegas. It's always in the first week of December if you guys want to come out to it. It's pretty good.

Now, that's all of the air show performers, not just warbirds. It's flip-flop acts, the Thunderbirds, Blue Angels are there. It's a big get-together and it happens in December because the season is done. Pretty much on 1 November or so, we stop flying because of the weather and we start -- and we have to do winter maintenance on our aircrafts so that usually takes some volunteers, right, most of the winter to get everything ready for the next season. Plus they have to go through their new ground school. The new -- watch all of the stuff that we make them watch to start up the new year too.

But the exception because I know you are going to ask me this question is, why 12 November? What, you know, that was when the accident was, and the only reason I can tell you that I was always adamant about having something on Veteran's Day weekend. And because that's all we do is we celebrate Veterans and World War II Veterans are in the greatest generation. But every year we had our air show on the last weekend in October. And every year we were competing with football games in town, the state fair. We couldn't get cars, motel -- it was always a problem. And I said, can we do it in November? And everybody is like we can't do November because that's a big change, right? It worked out good.

We did have -- you do have weather at the end of November but

11 to 12, 13 November the weather can be just as bad as it can be the last week in October. So, we moved to that date, and I said, let's just own it. And that was our first year for doing it that late in the season. So, that was why a lot of units were like, wait a minute, 1 November. That's usually when the season stops. We extended it out 12 days just to accommodate the Wings Over Dallas airshow and it was -- the weather was spectacular. It was nice that Saturday. Friday we got rained out, but this year we're not going to do an airshow at that same weekend but now we do have -- we do it on Veteran's day weekend which is nice. And I know it doesn't always fall on a Saturday or Sunday. This time it falls on a Saturday.

We are going to do a ride event this year and kind of in honor of the folks that we lost we are not going to do an airshow. There is not going to be an Airboss, there is not going to be waivered airspace. We are just going to have folks come out from the public. We'll have food and everything for them out there. The education center which I will show you will be open for the kids. And they will be -- and people will be able to tour the airplanes and take rides if they want. That's what we are going to do for a three-day weekend in November of this year.

Q. On average for your season, what would you say would be the percentages for airshows versus more of like the rides and static displays?

A. That's a good question. I can tell you that I can look in

Rally Point and see how many hours we have flown already. We are at a record number of hours. As far as determining on how many of those hours are actually performing in a show versus positioning and de-positioning to and from the show, it would take a long time to kind of come up with that number.

But I would say, like I told you earlier about the big airplanes being on tour, some of them go on tour, a lot of them don't. So if you have a one unit with just a Stearman man, you may never go to an airshow. You may just fly at your local airport. That's the one end of the spectrum.

The other one is the B-29 and B-24 which are doing an air power history tour, which means they go to locations usually at the same time there is an airshow so they can have a large -- it's not like they just -- they do sometimes show up in barnstormer. They end up in a town that loves their airplane, and they will come out in droves just for that airplane but usually, it's associated with an event.

Not to mention military shows and other shows will offer up fuel because that's how they generate revenue is through the LHFE ride program. And any fuel that they get -- Air Force bases don't use AV gas, right, so they bring it in -- a lot of it, and then they would go get rid of it. Take all you can get. Well, some of those airplanes they take quite a bit of gas, and they are happy to leave the show.

And we do the same thing here so to segue in when we did

Wings Over Dallas and I -- this was my seventh -- that was my seventh Wings Over Dallas. If I have all of these airplanes out there whether they are in Georgetown or anywhere around the country and I want them to come out to the show, I can't just say, hey, this is Jim Lasche get your plane out here and be at our air show, we're the headquarters. They are going to be like, sorry, man, we're not doing it because it's too expensive.

So, what I'll do is we will pay for fuel for positioning and de-positioning for them to come out. So, we don't really make any money at the air show. We probably barely break even most of the time. But the planes come out, they get to be at the show, they get to do rides and make that revenue for themselves.

Well, they're doing rides, we don't pay for that fuel, but they get a -- they know coming out here, it's like, all right, I'll bring my airplane out there if I know I'm going to get this much in gas. And if I just left an Air Force base and I'm -- my takes are full I'm going to go ahead and pay them in the difference in fuel that they would have used based on the amount we figure out for the show. So, it's just to make it fair.

So, the units love the air show because it's a money maker for them. Headquarters, it's not a moneymaker but that's okay. That's not why we're here.

Q. Okay. I have I guess two more just clean-up questions before -- I've been going for about 45-ish minutes now and I'll hand it off to Shawn, but real quick questions. Are you an Air Boss,

yourself?
A. No.
Q. Okay. And do you hold a SAC card?
A. No.
DR. WOODS: Okay. That was easy. So, before I move into kind of more specifically about this particular airshow I'll hand it off to Shawn.
MR. ETCHER: All right. Do you need a break or anything?
MR. LASCHE: No.
MR. ETCHER: We've been going for about 45 minutes. Anybody need a break?
MR. LASCHE: I'm fine if you guys are.
MR. ETCHER: Sure.
MR. LASCHE: I know you're pressed for time.
MR. ETCHER: No, it -- hey, it's all good. We get --
MR. LASCHE: Then we're -- no, I'm good.
MR. ETCHER: The only time I'm pressed for is to -- making my flight Friday morning. So, you -- I could be here 24 hours if I had to, but I appreciate the time today. You have answered a lot of questions or at least filled in a lot of blank spaces I had with your answers so far. I have some follow-up questions --
MR. LASCHE: Sure.
MR. ETCHER: -- for that and some others as well.
BY MR. ETCHER:
Q. But tying into one of Sabrina's last questions and I know you

said airshows, CAF barely breaks even if even making money at all.
A. That's at the headquarters show.
Q. At the headquarters show.
A. Right, once a year.
Q. So, and I know I'm a pilot -- not of being (indiscernible) but how do you guys actually operate, stay in business? I mean, sadly money -- it takes money to make these things work.
A. That's a great question and I will tell you that the current -- people have to pay a -- they have to pay dues to the CAF headquarters to be able to be a part of this organization, right? They have to pay to be a member of their local unit and that may be like $50 a year. Ours is $225 to be a CAF Colonel and if you are going to fly these airplanes or be a part, an active part of the unit you have to be a CAF Colonel.

That's -- it's pretty expensive. I found over the years that the pilots probably weren't paying what they should be commensurate with everybody else. I mean, there were some folks that showed up at the unit and they just -- they made the donuts, they made coffee, they helped drive -- you know, they put on pancake breakfasts. They worked a lot. And then the pilots were getting for the same $225 we're getting to fly B-51 Mustangs and all of these other airplanes.

So, last year I levied a pilot fee of $300, like a fishing license for every pilot. I was already public enemy number 1 -- no, I'm just kidding. They -- it was well received because most

of the people were like, you know what, I get to fly these airplanes. I get to do so much for so little amount of money. $300 a year isn't that big of a deal, but the reason I did it was the $300 paid for the Director of Training. That's the new position that I added. I didn't have the funding for that and we're a non-profit organization so we're already, you know, I tell new hires when they come in, I go, first of all, the pay will absolutely astonish you. And they always go, really? And I go, think about it. It is what it is, you know. You're not doing it for the money.

But the $300 was well received. I've had -- I expected 300 pilots to pay that. I've had almost 375 and they're -- and I've only had a couple of people complain about everything but most of them are like, you know what, I get to do a lot. And those fees some of those the sponsorships on these airplanes is frozen in 1972 dollars. The amount you have to pay to fly a Stearman is the same as it was in 1972, $1,500, one-time, tax-deductible donation. That's it.

And we never really raised those rates. So, there's a lot of things we're behind on. And I'm like, look, if we're going to improve safety if we're going to improve training which to me training is -- it's about as important as you can get, right? Because without it you can talk a lot, you can send out videos and all of that, but until you really standardize and upgrade the way you train, that's why it was important to add that position. And

of course, the general staff had to vote on it. They voted on the $300 pilot fee. It wasn't Jim Lasche saying -- it was my idea and we even thought, we'll just make the units pay and all of the -- a lot of the pilots out there were like, yeah, just -- we have got five pilots, just make them pay $300 per -- they get to -- they've got the privilege of watching us fly these airplanes and you can see where I'm going with that. So, I said, no, no, no.

And most of them realized they were like, you know, a lot of them said something that was kind of funny. They go, I'm okay with it but I think a lot of people will be upset with it. And that was really funny because most everybody knew where the money was going and what it was for, right?

It's to keep these things flying.

I probably missed the second half of that question but --

Q. No, you actually encompassed it, so it's all good. I appreciate that. Because I was just asking how you guys make money and all of that.

A. Oh, I'm glad -- I -- that's what I -- I wanted to cover that one thing. We talked about ride programs briefly. So, we have the LHFE program, Living History Flight Experience, right? That's an FAA exemption that we are in the process of renewing right now. It's good for two years. That's how we are allowed to fly our limited and experimental category airplanes for rides, right?

The standard category aircraft are on our L0A -- 01147 LOA that's managed through the North Texas FSDO here. We have 88

airplanes on that right now. Those are your Stearmans, C-47s, T-6s. They do rides as well.

The one stipulation which is kind of confusing is the fact that if you are on that LOA if you work on those airplanes or fly them and do rides, you have to be on our drug and alcohol testing program. Challenging to manage for a volunteer organization but we do a good job. We get audited every year. And we've never had any issues with it, but it's an owner's program. Nobody calls me and says, man that program is awesome. We love your drug and alcohol testing. But I had to help develop it like six years ago and it was like chewing on aluminum foil.

The two ride programs generate revenue. So, units can elect to be a part of this or not. If they just want to say, you know, we don't want to do rides. We don't have the resources. We don't have the people. We don't have the pilots. They don't have to do it but it's a way to generate revenue which helps pay the bills. And they do have bills to pay to the headquarters as well. I mean, that pays for -- there is an ASAP program which basically they turn in 9 percent of all revenue generated.

So, it's like if your unit goes out there and makes, you know, $100,000 a year, $9,000 of it comes back to the headquarters. That's how we get -- that's how I get paid, Bob gets paid, you know what I mean. That pays for the organization -- the headquarters. It's called like a -- I'm not allowed to call it a tax, but -- so, don't write that down. It's not a -- it

is a tax and what used to be -- now the units that -- they don't do a lot, but we had units out there making money hand over fist going on tours and doing airshows and they didn't have to pay hardly anything to do it.

So, we leveled the playing field. Now it's the same for every unit. That was a little over a year ago we implemented this program and it's -- the units that have to -- that were getting -- that had like $500,000 to $600,000 in the bank are now like, man, this stinks. And I'm like, well that's how you got all of that money in the bank because you didn't pay your fair share for the last 10 years. Other units were like, thank God you finally fixed it because we were living, you know, hand to mouth the whole time. So, that's called the ASAP program. I can get into that more later on, but that's through our CFO. And he bills them quarterly for that.

We also have insurance bills to pay, right? So, I manage the insurance for the CAF as well. Our comprehensive policy, our liability policy. We have a bunch of them, and we have spent a lot of money with insurance every year. So, that's why I'm very in-tune with the cost and the rate increases that we have. I have to be. And I tell everybody out there, it's up to you. I mean, it's up to the units to earn it, right? I can put out guidance and regulations and videos, but at the end of the day, it's their safety track record that's going to keep the insurance rates down. So, it's on them and I make sure they know that.

Q. And just for clarification because ASAP means so many different things and in aviation ASAP means one thing. But what does your ASAP stand for?
A. So, what is the acronym for that thing? It's like -- it's a -- I would have to ask the CFO. It's his term and he uses it but it's -- it used to be called ANNUAC and there was a whole other acronym, but ASAP is like -- I won't even guess at it.
Q. Okay.
A. I can give it to you later. But that's how the units pay to be part of the organization.
Q. And just for the record, let me clarify just a little bit. ASAP for you guys is the not the same as ASAP at 121 agency.
A. Correct. Right, correct.
Q. Okay.
A. Absolutely.
Q. I just wanted to make sure.
A. No, no.
Q. It wasn’t that.
A. It's an acronym for like, you know, approved support payment program, whatever something like that so.
Q. I just wanted to make sure it wasn't -- we're not talking about the same ASAP. So, I just --
A. Yeah.
Q. I told you I'd ask questions if I didn't understand something so.

A. No, and I don't have all of the answers, but I'll get them for you.
Q. No, and I appreciate that. So, for just a moment, let's say you're dumb enough to let me walk through the door and say I want to be a pilot for you guys. And besides me paying the -- let me see $550 pilot fee, membership fee, and then correct me if I'm wrong, I have to pay something to fly specific airplanes -- a one-time donation, right?
A. Correct, it depends on the airplane.
Q. So, let's say I wanted to fly a Bomber. What is my steps after I paid whatever I have to pay and all of that for me to get from right here to sitting in the left or the right seat of that bomber, kind of walk me through.
A. Sure, so I got out of the Air Force, and I was kind of -- the reason why I do this job is because I couldn't get anybody to give me the time of day on how to fly World War II airplanes. I didn't grow up flying them. I didn't -- if it wasn't for Uncle Sam I would have never got near an airplane. I didn't know anybody that owned one. My dad didn't own an airplane. He was a police officer, you know, it's like -- I basically I had this burning desire, I don't know why, to get into the warbird industry after I retired from the Air Force.

And I found it hard to get a purchase anywhere. Every organization was kind of like, you know, do you have this, do you have that, no, and then they would just be like sorry. And I ran

into a couple of people that actually gave me a chance, right? And I'm surprised, I mean, I was a retired Air Force Colonel. I'm surprised they took the chance on me. But I couldn't get anybody to give me the time of day and it blew me away.

So, I thought, you know what, I'm never going to do that, and I didn't know I was going to be in this position now, but I treat every -- somebody calls me on the phone, and they want to fly a B-41 Mustang, right. I don't go, what are you crazy or do you have this, do you have that, if you don't know this, are you wealthy? I don't do that. I just -- I tell them -- I give them the path, which is what you are really asking me about, right? Everybody gets a path. If you don't have a pilot's license, right you don't have a path because you need to at least have that, and I'll get you into the program.

There is a -- we have a -- our 60-1, right, has a table that lists how many hours you have to have, how much dual instruction you have to have. If you want to fly a B-51 you have to have 100 hours in the T-6. Well, if you don't have 100 hours in a T-6 I'll tell you where you can go join a unit that has a T-6 so you can -- if you really, really want to do it, I'll give you the path. It may be long, and it may be hard but if you really, really want to achieve what you want, you'll do it.

One of the things that's important to note is, like you say you want to be a copilot in a bomber. The nice thing about copilots is they don't have to pay the -- that sponsorship fee.

That's pretty cool. Some of them require it, but most units don't. And you start off at an entry-level, right, and you have to meet the hour requirements or whatever to fly that airplane if it's a -- it depends if it's a big one or a small one. And basically, you start off, you have to join the unit, join the local unit, join the CAF, go to ground school, and attend the training and then you have to basically, you have to sit in the right seat for 25 hours even if you're -- got 20,000 hours in the 737 in, you still have to sit in the right seat as a copilot.

Even if you are type-rated in an airplane, like the C-47, you can't jump into that left seat in the CAF. You can for the FAA, but for us you have to have 25 hours to gain experience in operating that airplane from the right seat and most people they will always -- I'll get calls and they will say, hey, man I have got two hours, can I get a waiver for that and I'm like, no. You know, now if somebody has 23 hours and they are doing well, can I waive that? Yes, Bob and I can both waive the requirements.

But we have a -- in our operating manual it stipulates, and I send everybody to the operations website so it's 60-1, that's the Regulation if you want to take a look at it and we -- I'm not going to go through all of the tables, but I mean it basically tells you what you need to do to be a pilot in the CAF.

And I get calls all of the time and I'll spend an hour talking to somebody on the phone. Sometimes it's kind of funny when I find out that they are in a nursing home, and they are not

even supposed to be using the telephone after I spend like a half hour explaining to them what it's going to take to fly Corsair. I still -- I don't care. I don't know who is on the other end of the line. It could be somebody who is even a 15-year-old. It doesn't matter. I want to give everybody the opportunity to come in and fly these airplanes.

It's not easy. I mean you have to do it, but it's not as financially burdensome as you would think. That's what's amazing to me and I find some of these units have an air show every year and their money pays for their fuel and everything that they do in that unit for the whole year. And they fly for free, you know? That's pretty cool if that's what you want to do, you know.

But, to be productive you have got to have new people coming into the unit and you've got to provide them a path. That's the way I feel. I didn't get a path until I went through nine people and the people I got a path from I probably had to sell my soul to the devil to be able to get where I'm at right now which was unfortunate. It shouldn't have to be that way in my opinion.

So, I didn't grow up in the warbird industry. I didn't know anybody that owned a warbird, I just wanted to do it and just like all of these other people, if you had the drive and desire, you will do whatever it takes to get, you know. I bought a World War II airplane, and I shouldn't have bought it and I didn't know how to fix it so I had to work on getting my A&P license because you can't even pay people to work on these airplanes if they don't

know what they're -- you can't just hand it off to the local shop, you know?

So, it's like, is that a long path, you know? Everybody was like, what are you -- my friends are mostly, hey, what are you nuts? But after I got out of the Air Force I did get a 737 type rating the day that Southwest stopped interviewing their pilots for three years. So, I never really had a burning desire to go to the airlines, but I got it and then after three years I'm like, you know what, that's okay and now you don't even need a type rating to even apply for Southwest Airlines, you know? And I have a lot of buddies of mine that -- service buddies that fly for them.

Anyway, off -- I kind of segue off the topic, but the path is important I think. And once they get -- I expect other people in the units to provide the same kind of level of customer service. Sometimes I can't guarantee that's going to happen but I mean if somebody walks up to a unit and they are just -- they may be with their 16-year-old daughter and they may show up to a CAF function because they are having a meeting and if somebody treats them the wrong way or doesn't do something that welcomes them in, they are going to vote with their feet and they are not going to be like, I'm writing a letter to headquarters, I'm going to -- most of the time they will just say, hey this is fun. Thanks, I'll see you next week and then they walk out, and they go, all right, let's go to soccer camp. I don't want to do this because of the first

impression they get.

So, I tell -- I'm kind of -- this is more of a membership gig, but I kind of -- because the membership guy doesn't get out in front of these people. I let them know that it's how you treat these people that come in it's going to be whether or not they are going to join the unit and be an active participant. If you don't want them to be a participant, guess what, you can make that happen too. And that's something we have got to -- I'm cognizant of that because like I said I came from a place where I couldn't get anybody to give me the time of day warbirds. I thought that's wrong.

Q. Okay. I know you said just a minute ago that you guys can give -- you can give waivers if somebody has got a few --

A. For our regulations.

Q. For your regulations. How often do you guys have to do that?

A. I would say -- well, Bob has -- he gets calls too that I don't get. If I get a call for a waiver for saying, hey I'm overdue on my check ride by two months, can I get an extension? I will usually send them to Bob just to make sure because it's -- I don't want to override him. Because a lot of times when I call the CAF Shop Around is, you know, you have Sabrina call Bob and say, can I get -- can so and so get a waiver and Bob says no and then you call me and there is plausible deniability, right because you didn't get a no. You just found out, you know what I mean, so I don't let people do the shop around. And it happens all of the

time.

I had a request for a waiver to take off a B-17 with one engine inoperative. So, they lost an engine flying from Houston to Little Rock, and in Texarkana, they landed uneventfully in a Bluebird day, engine shut down, three engine airplane. And they know they've got to go back to Houston, get their spare engine and bring it back, install it. But it's easier to call me and say, hey, can we do a three-engine takeoff just so we can get back home? And these are people that fly 787s. I mean, these are professionals and I'm like -- I -- and I always tell them, I go, no, not going to happen. But I appreciate that they are leaning forward in the straps trying to get the mission done, right?

You -- it's important. You've got people counting on you to get somewhere. I know it's easier to change the engine at home where everything is at -- all of the tools, all of the people. But even if we were taking off to bomb Berlin today, I wouldn't waive a three-engine takeoff and that's how I talk to these guys.

A lot of times they are like, okay I kind of was thinking that way and I'm like, yeah, I know you were but if I had said, sure, do it, they probably would. So, no, we don't -- we -- the things we waive are more minor like I told you about hours. If somebody has 23 hours and they are waiting to get two more hours and they are ready to go. Is two hours going to make a difference? Sure, I'll be like that's no problem. And then I'll run it by Bob to make sure he is on board. He may go, no, I want

that guy to get his -- every bit of that 25 hours because I don't want to jump in front of Bob, and they will do that to me a lot. They will call and then I'll call did you talk to Bob Heath, and they'll go -- and I do the same thing for my Maintenance Director. Did you talk to Matt Jackson? And they go no, and I go, okay well give him a call or I'll -- you got the number.

Now, if they can't reach one of those guys they can always call me. I'm not going to put them on hold, you know what I mean. If they are not available for Bob is on vacation I don't expect him to take those calls. I'll do it and I'll send him an email or a text message saying hey by the way here is what I just approved.

Q. Okay. And I apologize this might be a tough question for you, but did any of the pilots on -- in the accident at CAF -- did any of them have any waivers that you guys know of --

A. No.

Q. -- you are aware of?

A. No, and I knew them quite well so I can tell you that Craig was a friend of mine. I was with him up at -- I was with him at Oshkosh last year. That was the guy in the P-63. The two pilots flying the B-17, Terry Barker and Len Root. Len Root was the PIC. He applied to do the Director of Operations job and he really wanted to do that. Now, both retired airline captains, those two guys. Terry was thinking about applying to be the Director of Maintenance here.

So, I knew these guys really well. I was impressed with how

much they did for the unit above and beyond, that's why I'm constantly trying to pull people into the headquarters. Not so that I can step out, but because you know I have got talented folks out there in the organization and I'm -- the experience, the depth of knowledge is all out there in the units. It's my job to bring it here and I'm selfishly trying -- if I bring somebody in that I think can support all of the units from this position, I'm going to try to do what I can to do it. So, I tried to get Terry. He was on the fence about coming out and he was restoring his own airplane.

But no, those guys did -- they were high time, high qualified, nobody got a waiver for anything for those in those airplanes.

Q. Okay. Now, let's -- as I said, you know, I come into you, and you give me a path forward on how to become a --

A. Sure.

Q. -- pilot here. And I have to have 25 hours in the airplane, correct?

A. In the right seat --

Q. In the left seat?

A. -- to upgrade to the left seat, yes.

Q. My apologies, in the right seat, yes. Out of that 25 hours is it just going out and burning holes in the skies, learning how to recover from stalls and approaches or is it airshows? What --

A. Good question.

Q. -- could that 25 be?

A. So, it can be a combination of anything, but we learned from the Bluebonnet Belle accident and the reason why I'm -- it's -- that's kind of a -- hits close to home that question. The -- and I hope you'll indulge me. The copilot that was flying that airplane that was doing the takeoff which caused it to go off the runway and crash and burn, had just gotten a type rating in the left seat from an independent contractor. He was qualified to fly that airplane from the left seat. He was already an FAA DPE, right? So, in a small -- in small tail draggers, didn't have a lot of large aircraft time.

So, what the unit did was they were like, oh my God, this guy is brand new, he just jumped ahead of the like in front of everybody else that was training to get ready for that position. And guess when I told you -- remember when I told you that I went there or the gear-up accident and then they were heading up to Oshkosh to promote the Normandy trip. Well, guess who was -- that's why that guy was in the right seat because Jim Lasche is making him get 25 hours. I can't let him fly in the left seat, which is where he did his training, right?

So, the guys in the right seat. He flew two rides in the right seat with the unit with an instructor and the first ride didn't go that well. Second ride was like, yeah, okay, you're doing better. But he is flying with a very high-time experienced PIC. This guy is a freight dog, has a million hours in the

airplane. Adamant about not being an instructor pilot. He doesn't want to instruct but he is more than capable to carry out this mission. And he lets the copilot do a heavy-weight takeoff in the right seat. And he said, are you comfortable doing that takeoff? And the copilot said, yeah. He's not going to say no. Right? And he does and he doesn't know what he is doing. He is not used to how the airplane is going to perform. The pilot let it go too far by the time he tried to correct it. The plane went off the runway.

So, the takeaway from that was and I went to everybody after, and then I said, let me tell you, I knew it was going to happen. This guy was going to sandbag the right seat all the way up to Oshkosh, maybe get a landing in at some fuel stop, right? And then he was going to fly all of the way back from Oshkosh and guess what? He is going to be danger close to getting his 25 just to fill the square.

So, we are cognizant of that and that's why I'm like, look, the 25 hours is -- we don't waive it very often but when we do somebody has to have the performance and they have to be -- an instructor pilot has to say, look, this guy -- another five like I said isn't going to help them. But in this case, that was something that I was -- I witnessed, and I thought, wait a minute, why is this guy even in the right seat. And then I realized, they wanted him to be the next evaluator, FAA evaluator for a type rating -- for folks to get type rating. That you know would have

been like a focal point for all of the other units to come to because of this guy.

They were thinking ahead. I get it, but the guy wasn't really ready for that kind of a challenge and in his mind he was like, man, you know, all of my time is in the left seat, but the time in the right seat it makes a big difference as you know switching from seat to seat. And the guy was uncomfortable. Somebody needs to recognize if somebody is not comfortable with doing something you need to step in or you need to say, hey, look we could always get money back, right? And I could say, look let me -- this is a heavyweight take off. Let me do a demonstration, see how it's going to be different. You haven't flown a heavy airplane. Watch what happens here and talk them through it. Do it yourself, you know, demo it -- something like that. That's what they take away from that.

So, we got a lot of -- this came out in the safety bulletin, and we just were like, hey, look, you know, we've got to improve some of these processes and even though I'm requiring 25 hours that the FAA doesn't require, this time it kind of worked against us, right? Because if you are just going to bore holes in the sky and get your 25 hours or you're going to get those -- some of those hours have got to be hard fought and in the pattern where you are really learning to fly the airplane.

And I don't mean to keep belaboring this, but we don't have simulators, we don't have part test trainers. In the military and

in the airline industry it's invaluable. We don't have that so every -- all of the training that's done is with engines running, you know, fuel into noise, stuff happening and then it's like -- and so these -- they are kind of always on a budget, you know, to keep these things flying and not just sit there and say, hey let's talk about it with the engines running for 30- minutes. You can't do it. I mean, you can, but it's -- it gets expensive, and the engines get hot, and you know.

So, it's important. The training they do to get ready to fly to me is more important. Bob and I are always adamant about pre-brief and most of all debrief, right? Because everybody does a good pre-brief mostly. Debrief consists of hey, that was fun, see you later, I'm heading out. And that's no good either. You know, that's where the real learning takes place.

Like the CRM training, I told you about -- the six hours I make them do, we made it -- we gave them four videos to watch and at the end of -- at least to the units and they had to watch them. And at the end of the unit they had to pause -- or the end of the video they had to pause, and it might be running out of fuel, the impossible turn, different scenarios for different airplanes that I -- that were real. And then they had to discuss --- 1.00 in their unit based on their planes based on that video.

And it was like, now I mean I had all kinds of people going I can't. I don't have the time for this, I'm, you know, whatever. They finally realized, I said you know what, it might be time to

join a motorcycle club, scrapbooking, that might be fun, you know, whatever. But if you can't do this, then you have got to do this to do the training to be able to fly these airplanes. The cost of poker is going up.

So, we kind of -- we always are constantly trying to do something like that to try and just, you know, keep everybody on track, but it's a challenge, you know.

Q. Okay.

A. But we work at it.

Q. Since you bring up the, you know, you might want to go join a motorcycle club or scrapbooking, that just made me snicker. I apologize.

A. I do that as an attention-getter because --

Q. It got mine so. But --

A. Sabrina's like -- you are big time into scrapbooking. No, just kidding.

Q. But a ballpark range, how often do you have to tell a pilot, you know, maybe you need to go seek fun elsewhere? Do you have to do that often?

A. I have and I'll tell you the one thing that I can't fix and is attitude. I'm -- I just -- I'll just come right out and tell you if somebody has the wrong attitude or they are dangerous and they are better than anybody else because they know how to fly the airplane better and they're not going -- they are going to do what they need to do, I don't have any patience for that. And that's

what I -- that's what it's taken. I've had people doing low passes when they knew they weren't supposed to, buzzing crowds, basically doing the wrong things with these airplanes and they don't own them.

I go, if you want to go buy your own P-51 Mustang and do whatever the hell you want with it, that's fine. But you're not going to do it with our airplanes. So, that's why it takes a lot. And I can tell you the people that I've -- I have grounded some people for six months to nine months, there is only two people in my six years of doing this that I have grounded permanently. I mean, they have to wait for me to get run over in Interstate 20. And they'll come back, and they will reattack but as long as I'm here I won't let them back in. And I get appeals all of the time too. I have changed, right? I'm not -- I don't have anger management issues any longer. I don't care. I don't have the patience for that.

So, people -- time heals all wounds, right? We have people in these units that act up and they do something crazy like show up and smoke marijuana and then they kick them out and then four years later they're like, hey, so and so wants to come back in, they're not smoking marijuana anymore. I'm like, really? You really need that person. And a lot of times it's because well, they are the only person that knew how to sweep the hangar and take -- clean the trash cans. Not a good answer, right?

Q. So and forgive me for asking. I just want to make sure. You

have only had to let somebody -- I'm going to say let somebody go even though it's hard to let a volunteer go twice or has it been more than that in your --

A. Twice. Now, let me clarify. I do not have the authorization to kick somebody out of the Commemorative Air Force. Only the CEO can do that.

Q. Okay.

A. Now, he can give me the opportunity to do it, and or he can -- which is really rare. He is going to be like if I go up there and hey, look, I've got a couple of bad actors here, you know. And that is usually when they start attacking him, you know. Because they will send him letters attacking me and then he will be like, now they are attacking me. And I'm like, your call. He had -- he has kicked people out. I don't have the authority to kick people out of the CAF, but I do have the authority to remove their flying privileges, that's it.

Q. Okay.

A. That's all. That's the limits of my --

Q. And you've only had to do that twice, correct?

A. Permanently.

Q. Yeah, don't let me put words in your mouth, please.

A. No, no, I've done it more than that, but permanently where their -- they can't -- it -- your -- so, flying privileges is how the letter I put in their pilot folder says has been suspended indefinitely, you know what I mean.

Q. So, on a given year, how often do you not indefinitely suspend somebody but suspend somebody? Just give me a ballpark.
A. I would say maybe one every two years.
Q. Okay.
A. And like I said, a lot of times what -- I will engage the Stan Eval Board, so it doesn't look like, you know, I'm -- because it -- like I found that a lot of the people that are really experienced in doing this stuff, I need them to set the example. So, if you're the best Beech-18 pilot in the whole CAF, you don't get the privilege of doing things that everybody else can't do because you are better than them. It doesn't work. And it sets a bad example, right?

So, I had a guy recently and I won't give you any names, but we put on an air show at Reno -- Reno Air Races and it was a World War II demonstration. We don't race at Reno in World War II airplanes anymore. But it was a choreographed air show demonstration. And the pilot that's a very experienced -- probably most of the experienced pilots we have, came out of the bottom of the loop. He did an aerobatic demo at the end, and he did the zoom climb in a Bearcat which looked -- he was hanging on the prop, and he is that good. And then he came out of the bottom of his last loop, and he went around the last pylon before he came back. And I was like -- because he wanted -- they all want to race at Reno, right?

And I was like -- and I gave him the what for -- I didn't

ground him, but I told him something that I thought was important. And I got -- I think I made a dent, right? Because you -- that's my real goal. I don't want to just take everybody's flying privileges away. But I said, you know, the problem is, is that I know you're capable. I even know the airplane is capable but it's not your airplane if something happens to that engine on that zoom climb you aren't going to recover in time to hit the ground. You won't have the altitude. Yeah, I know. I go, so don't do that ever again. Right? And he goes, are you removing my flying privileges? And Is aid, no, but I'm having a conversation with you that I want you to take to heart because it's not you that I'm worried about, it's the people that want to be like you that I'm worried about.

The people that, you know, look at you as the, you know, the -- what I become someday in that unit, right? They are the people that worry me the most because they could go out and do something like that and they might not survive it. And all of the best airshow pilots I know are all gone. We had them in the military.

We had people that were the best pilots to ever fly these airplanes and crashed and kill people like the B-52 up in Spokane. It was probably -- it was long before your time. But those are the things -- that's called the Road -- there is a book called The Road Pilot and these are the people that are out there flying that are actually -- they are so experienced and exceptionally qualified that they can, you know, they can do more and get away

with more. Is it physically possible? Yes, but is it the right example to set? No, and that's why I wanted to do it.

Q. And just for the record did either pilot on the bomber or the P -- oh, I keep saying P-64 -- P-63 --

A. Yeah.

Q. -- did either of them -- have they ever been removed?

A. No, no.

Q. Okay. I just wanted to make sure we have that for the record.

A. And I wanted to let you know about that last story because I would rather have a conversation with somebody that if I make a dent and I can feel like I can get through to them, then I'm not going to remove their flying privileges. But like I told you, if somebody has a bad attitude or does something or says something or puts something in writing and sends it over it's like, and then I call them and give them the chance to say, hey, what were you thinking when you wrote this nasty email? And then they don't recant or don't say well, I was drinking a bottle of Jim Beam and my dog accidentally jumped on my keyboard and hit the send button. Come up -- give me something to go on but what I realized is sometimes people with attitude problems their ego won't allow them to even muddle through or tell me what they think I want to hear. So, I'm not trying to be hard, but I have to be fair. I always -- I have to be two things in this job I always say, I've got to be fair, and I've got to be consistent. That's it.

Q. All right. I appreciate that. Now, getting back to me coming on board --

A. Sure.

Q. -- hypothetically, of course, because trust me your insurance would not want me on, but how often would I get -- I don't know what you guys call it but I'm going to call it airshow training. How often would -- do you train pilots to fly formation, to fly airshow fly-bys, all of that, how often does that -- how many hours does a pilot get of that training?

A. They get a check out in an air show with another pilot that's air show with another pilot that's air show qualified, excuse me, that's flown in an air show, right? So, and a lot of times the entry-level to this is not somebody with a SAC card going I'm doing aerobatics. It's somebody with an airplane that shows up and they do -- in the CAF you will hear a bomber parade or a training parade.

A lot of times what that is is dissimilar aircraft with all trainers will take off and they will fly, and they will go around so the crowd can see them in a big racetrack pattern. So, it's important that you realize that, you know, you are flying with other airplanes. You are not flying in formation, but you are flying behind another airplane. Sometimes it may be dissimilar in speed, a little faster or slower than yours. The Airboss has to control that, but it requires some -- it requires at least a checkout.

So, you can't just say hey, I'm going to go fly, do you mind if I fly today or whatever? It's like, no, you've got to be -- you've got to have a senior pilot endorsement to be able to fly in an airshow. But it really is a ride-along, you know, and an approval to be able to do that.

So, the other thing is if you are going to fly, and this is why we changed it and I would love you guys to go read the guide for airshow flying because it has a lot of the -- it covers a lot of that in there too. But it's like for the Bomber rowdy rounds and ever since I have been here the bomber thing has been kind of a chaotic collection of -- it's like somebody conducting an orchestra and writing the music at the same time.

It's like big dissimilar airplanes, they are all moving and going -- fighters are on the top, bombers are down, it's kind of chaotic, right? But it's always been done in this industry, and we found -- I say we, Bob and I, after the accident, we realized that you know what these guys are flying 1,000 feet behind each other if -- they are in a bomber and you're just like it's just following a B-17. You're going to follow the B-17. The plane behind you is going to fly -- he may get close and then have to back off a little bit, but you should kind of maintain your separation. But when you bring other airplanes coming in at different angles or at different altitudes and they fly at different airspeeds, it increases the dynamic factor of it, and it almost becomes semi-dynamic maneuvering if you will.

The -- and that was the case which I don't want to -- I don't know if you want me to get into some of the details, but I mean that was part of the problem with this.

Now, I will add one last thing to you guys because it's important and you may not have caught this on the tapes or not. But, I was adamant when you are doing an air show -- we used to do an airshow from like 9:00 in the morning until 4:00 in the afternoon and the paratroopers would drop out of the C-47s at the last thing because we had to wait for the pyro field to be cleaned.

We would -- I was adamant years ago that we had such a long open window for the show, you can't fill a show with that much stuff. So, we would let ride flights fly when acts weren't flying. So, you could take a B-17 -- a crowd doesn't know a B-17 is taking off and just going around and like comes back and it lands. So, we allowed ride flights to happen during the airshow. Well, once we condensed the airshow to the standard air show format which is like three hours where the Airboss has the airspace. It's waivered, it's controlled, the tower has a relinquished right. He is in charge of it.

I was always adamant no rides during -- no-ride flights during the waivered airspace. No -- and the FAA will confer that he heard that at the pilot briefing but that was because of me because I got a lot of pressure for that. Because the Airboss was like, I get rides out in between. I can do it simultaneously,

right? Well, two airplanes -- and I was hard over on that nobody was supposed to take off or land during an air show act.

And I got all kinds of pushback from people saying, no. Man, you know, if you can fit a ride in, you know, we ought to do it. And I said rides are before the airshow waiver or after the airshow waiver period. And I got calls -- I got pressure from a lot of high-up people that were like, hey, man, you are going to have to call seven people. They are all pissed off at you. And I said I don't care. I'll do it. And one of them was Russell. And I called Russell and I said, hey, I don't want any rides during the air show waiver period. Oh, man. And he told me, he goes, I'm pro-ride. I'm pro ride. I go look, I'm pro-ride. I'm with the CAF. I get it. But I don't want any ride flights to happen during that waiver.

So, he -- I got more calls. It was a whole Saturday I spent on the phone. And finally, I acquiesced, and I said, I will tell you what I will allow this year but I'm not happy about it. I will allow rides to take off as long as they take off and land when there is nobody -- another act is not flying. I mean, and you know the flip flop goes out there and flies around and then he lands, take a ride off, that's fine. I said, but the ride flight cannot take off while another act is participating, right? And if they have to sit there and burn gas for 30 minutes waiting for Tora Tora to finish their act, you're burning gas. Or if you're out there in the holding pattern giving somebody an hour ride when

they only wanted a 20-minute ride, I don't care. I won't let that happen.

And there were two airplanes that landed in the middle of that airshow and one of -- the last one was a Stearman, and you saw it touch down and right when the B-17 is hitting the ground, he was right in front of it. And I remember I will never forget when we were looking at the footage and Jim VanDerKamp said, what's that airplane doing there? And I said, you know, I did authorize a senior pilot ride, right, the day before that got rained out. That's another guy to fly in an air show with somebody else. There were two people in the airplane. I said, but they shouldn't be doing that senior pilot ride. They would have done that in the trainer parade early on in the day, not during the bomber gaggle, right?

And I looked into it, and I found out that it was a ride flight. You hear it on the audio when he tells the guy to get on the deck, put it on the numbers. So, this is Jim Lasche talking now, the problem with that is, is that you've got to manage all of these airplanes going in different directions, 90 left, right 270, dog bone patterns both ways, fighters on -- up here trying to join with 80 knots of overtake. All of that stuff is -- it's like a -- you've got to go into this Zen moment, you know. And I've seen Russell do this before. He's like -- and the problem is, is that there were two planes. That Stearman didn't cause the accident but guess what it's like somebody throwing another ball up in the

air when somebody is juggling 12 balls and I just throw a 13th ball up there. It's another thing to deal with. It's another airplane to take care of, to be the air traffic controller for. Does it take your mind off of the attention?

But I was hard over on that one and I want it on the record that I to this day did not authorize any -- there was a T-34 that landed earlier in that day, and you can hear it on the tapes. Two airplanes that are on the audio. Now, I -- you guys heard the audio, right? Sure. So, there were two ride flights that landed. That was not supposed to happen, and I was not happy about it, but I want it on the record that I wanted no ride flights during the entire waiver, but I did acquiesce and allow them as long as there was not another act flying. You could take off or you could land, but you couldn't land in the middle of an act.

Q. So, and forgive me if I ask a very plain question --

A. Sure.

Q. -- but it's -- I'm -- I just need a little clarification. I get you did not authorize those flights and everything.

A. Right.

Q. Are you the one that authorizes those flights or is -- are you one of many that can?

A. So, I don't authorize the ride flights as far as the unit. They book those through a ride -- so if some -- I don't know how -- if there are 10 people that are going to want to ride that day or five. All I dictate is when you can do the rides and when you

can't do the rides. You want to do the ride at night? Can't do it. We don't fly after dark. We don't fly in IMC.

So, there has to be a window, right? And of course, I'm like we are going to do rides from, you know, sunrise till 11:00 or till the airshow waiver starts to kick in or whatever, and then we're -- and then you can do them again in the afternoon. And I was like, there is no way you guys are booked up. We didn't -- they didn't have that many rides booked for the afternoon because guess what? When the airshow is done everybody wants to just finish up.

You know, I don't want to go out and do rides till the sun sets, you know. That's -- I'm paraphrasing that's probably not true. There were some units that they were rides. These guys would stay up there flying until the last person wanted a ride, just because it generates revenue. But, the program is not -- they don't call me up and say, hey, I'm going to do rides with the airplane tomorrow. Do I have permission to do that?

We do require them to call us on some things and that's a photo mission. That's -- that requires either Bob or I to authorize it. So, anytime somebody is going to get photographed by another airplane, they have to call us, and they have to get approval to do it. And you would think, well, that's not really a big deal but it kind of is because photographers love to put airplanes at odd angles to get the right shot with the clouds and the -- and a lot of times I have seen some of these pictures where

there is all of these pilots and they are looking at the photographer but they are not -- they are supposed to be in formation too, you know, but it's like they are probably -- that's a pretty dangerous thing so we have to -- we have -- we always do a stepping off brief saying who is doing the photo ship, who is qualified, who is not, who is flying the airplane.

Then that's what he and I do. Not both of us. It only requires one of us to waive it, but yeah, if I get a picture or if I see a photo of an airplane and I'm like when did this happen and I didn't authorize it, it's going to be a problem.

Q. So, let's go back to the airshow and the Stearman lands. If the event ever occurred as it did, what could you have done about it? Is there anything that you, the Commemorative Air Force, Chief Safety Officer, is there anything you could have done about that had the airshow went off without a hitch?

A. Sure. So, what I could do is I could -- or what I would do and what I will do if we have an airshow next year and I'm still in this job, I will say, no rides during the airspace waiver period. That's it. And if any unit decides they want to go out and do a ride, then they will do their last flight in that airplane -- in a CAF airplane once they land. That's how I can control it.

Q. Okay.

A. And that's why I -- like I said I set that parameter for this airshow, and I had to talk to 18 different people to say, hey,

man, you know this is what we do. And I'm like, and I agreed, I said yes we have done it in years past, but we didn't condense the show. There was many opportunities when there was nothing going on for somebody to take off and do a ride. But when you condense the show down to a real airshow it's really hard. And I got pushback on that, but I stood my ground on the rides -- no rides during any airshow acts.

Q. So, back to the Wings Over Dallas. The event if the airshow went off without a hitch -- everything, would you have -- hindsight being as it is, I know, but would you have suspended their rights to fly that Stearman ever again?

A. Yes.

Q. Did you?

A. No, I didn't because they got authorization from the Airboss to take off and land. You know what I mean, it was like he had to control the airspace. It would be like I can't tell the tower, hey tower, you can't let these guys take off and land. I was not happy about it, you know what I mean, but they were at the -- those pilots were at the pilot briefing and -- so, I didn't remove their flying privileges. But I was surprised when I saw it just as well.

And then I heard it on the tapes and that verified. I didn't know about the second airplane -- the T-34 until after I listened to the audio tapes. And I wrote the N numbers down. I'm like, what the hell was that guy doing up there? It doesn't make any

sense he's not part of the gaggle. You know what I mean? Which is like I said it's like a -- it's like conducting an orchestra and if you have a -- if you have a plan and you have -- everybody knows where they are supposed to be and you don't change it, you know what I mean? Then you are basically writing the music as you are waving the baton. You know what I mean? And it may sound like the best symphony you have ever heard but at the end of the day, you know, it doesn't matter. The crowd doesn't know. You know what I mean? And the other pilots don't care, you know.

So, it's kind of a -- but, no I didn't -- to answer your question which is what you are really driving at, did I remove the flying privileges from those other two pilots after I found out after the fact that they had flown when they got permission to take off and land, no I didn't.

Q. So, and I just -- I'm still I have got a pea-sized brain, so it takes a little while for the molecules to collide for me to understand.

A. I have an excellent memory, just a crummy recall I always say.

Q. There you go. I'll go with that. It sounds better than a pea-sized. The Airboss then -- I don't want to use bad words so forgive me if there is a better phrase -- can override what you say --

A. He's running the show. I'm not -- I was actually in the incident command trailer and it -- I looked at Jim's notes. I was

there with the airfield manager in the -- they have a command trailer. It's like a big, souped-up RV. I was not with the Airboss on the stand, but even had I been with him on the stand, he is on the radio. You couldn't say, no, don't let that plane -- I wouldn't have been able to -- and I've been up on the stand with him before in the past. That's why I can tell you that I know it's constantly like there is so much going on that you have to keep it all, you know, in focus. You can't -- and you gotta be good at what you do. There is no doubt about it, and you know I -- everybody was always impressed with how is able to juggle so many balls.

And I'm not saying, once again, I'm not saying at all that those two ride flights were causal to the accident but they -- I can't imagine how they helped because you had to talk to them on the radio. You had to interact with the pilots, tell them to -- tell them where to put it down and get it on the deck. All of that takes time and thought, you know. And if it all worked out just fine we would be sitting here and not even -- we wouldn't even know each other right now. But it didn't. So, the holes lined up, right? And that's what -- that's exactly what happened. But I'm not saying that those are the cause -- I just wanted that -- I wanted a point in fact that I didn’t authorize Ride Flight Storm to take off and landings during the waiver.

But you're right about the waiver. When I was in the command trailer, I was on the phone with somebody, and it was so -- it was

like right after lunch time, and they had lunches delivered. It was loud. So, I was -- I walked outside and I'm walking outside and I'm -- and that's when I saw the B-17 basically it came apart. Because I -- from where I was standing I was down here -- the command trailer is right out here. So, the Airboss is at show center, and I was talking on the phone and I -- just the B-17 just went whew and the tail just came off. I never saw the other airplane hit it.

But the plan was and we tabletop this all of the time. We do exercises for with the airfield manager, with the first responders. They come out three or four different times before the show and we do these mini-briefings where we go through. And then one of them we always do scenarios, right? Active shooter at the event, you know, somebody, you know, we have somebody go off the runway and they are on their -- the gear is up, and you know what do you do? How do you handle the crowd? How do you do all of this stuff?

So, we -- the worst case scenario, you know, was an airplane accident. It wasn't a midair, but it was an accident with a big airplane, like a B-17 and how do we handle the narrator? How does he handle it? Where does everybody go? And the plan worked. Everybody converged on my location at the command trailer, right? Like it was supposed to -- Russell came there. Everybody came -- the marketing director came there. I mean, we were able to set aside -- we had places for their crew members, for spouses to go

that were actually at the show. We had that setup. We had a place for the members of the unit that belonged to the B-17 because they were out there in their own tent in force. I mean, there was probably 40 of them there in support. You know, that was a different group we had to kind of shepherd to another location.

So, but I have to say the prior planning helps out. You know what I mean? And I -- and one of the things that I just did -- I got an email on was the photographer that was taking all of the pictures that day -- was talking that he had placed other photographers. That's how he got so many different angles and shots. And at the end of the day he came to me with everything and said here is all of the stuff. But we didn't -- I think in the future what I would do is I would coordinate for that. I just assumed that, you know, photographers don't have to hand over what they are taking. But if they are out there supporting the airshow they gotta hand over their footage because we were able to use that.

And that -- the lead photographer was like, hey, I'm going to make it a process improvement for the next tabletop exercise in the future. And it's a good one because I -- that's something that's new. We just assumed that everybody comes in with all of this information and I just take it. You know, but in reality, somebody could say I don't want to let you have this. That would be a detriment to the investigation for sure.

Q. Let me let that mull around in my pea-sized brain for a little bit. One last little group of questions I have and then I want to pass it back to Sabrina because I have been keeping you way too long and my apologies.

A. No, and I'm available Friday too. I know you are flying back Friday but if you need extra time --

Q. And we appreciate that.

A. -- I'm available.

Q. You did tabletop exercises for the airshow and all of that. When do the pilots get to practice what they are doing for the airshows, or do they practice or is it all tabletop?

A. That's -- there is no practice, but we call -- you will hear people talk about the first day of the weekend airshow is the practice day, but it's not a practice day. It's a real airshow day. It's the same as every other day. The choreograph schedule doesn't change. But the Airboss comes up with a schedule and he shows up in the morning of the first briefing and hands out the copies and everybody passes it out on what's going to happen that day.

What it is, it's called a run of show and the run of show basically says, we are going to do the trainers, you know, this is the airshow it starts at 11:00 and it goes till 1:00. We are going to do the trainers first. Trainers be ready to go and start engines, you know, 20 minutes early. He will -- you say the briefing. When he briefs it that way and then it ends up with,

and there is, of course, there is a pyro dynamic, right, if you have Tora Tora which we have every other year, that's a whole other show.

And I thought it was quite interesting how people or Jim VanDerKamp asked me, he goes, how the hell did Russell control all of those Japanese zeros --- going -- weaving in and out and bombs. How did he do it? And he goes and I said the same thing. I go, he was eating a corn dog probably. Because he doesn't do any of that. Because that's a dynamic maneuvering act that's already pre-choreographed. They practice it all of the time. Same thing with the Thunderbirds or the Blue Angels show up and the Airboss doesn't tell them to turn left, turn right, they just do their act.

So, it's actually -- he is not in charge of those things when they happen. Tora did fly that day. The thing that always culminates with is the very -- the Bomber round -- we call it the roundie round or whatever. It's a Bomber parade. So, you put everything up there and then the fighters fly top cover over the bombers, but the fact that you've read the transcripts and you've listened to the testimonies and heard the video. Where people were and where they thought they were supposed to be was not, you know, it wasn't that it wasn't briefed. It really wasn't -- it should have been brief clearer in the beginning, saying look you are flying a P-51 Mustang you are on the 1,000-foot line all day period. And that way even if you get your altitude wrong you've

got separation, right? Lateral separation. And if you're flying a bomber you are on the 500-foot line all day long or vice versa, whatever. That way if you make a mistake with your altitude you are at 500 when you should be at 1,000, it doesn't matter. You're still -- you know what I mean, the crowd is not going to notice any difference. You know?

So, it's -- those are the kind of things and that's what the guide that we put out pretty much says, know your line, know your altitude, and when Russell said, and in his interview he said I don't ever assign altitudes. Well, the problem with that is is he is -- his point being I don't want people looking inside the cockpit to see what altitude they are at when they are at 400 feet. I want them looking outside. I want them to look at the big picture. Well, listen to me, right, because I will tell you where to go.

There is a very telling moment that I want to bring up in the audio where the P-51 that's leading the three ship questions the -- he questions it because it didn't make any sense and he didn't understand. Well, he is cooking around there, you know, doing 250 knots, pulling two other airplanes behind him and he's having to think on the fly what do I want the Airboss -- what do they want me to do next? You know, what's he thinking? Maestro, guide me. You know, I'm putting in -- I'm adlibbing here.

But it's kind of -- it's if you're going to be, like I said if you're going to make it faster and funnier and better and

closer it's like you don't need to be. It doesn't need to be -- these airplanes are -- they are cool to watch, and everybody loves watching them fly anyway. You know, it's like you don't have to get close or have -- you will find when you -- if you talk to the people at the Houston Air Show that was Ralph, his father, doing it and that guy had airplanes going head to head and 100 feet underneath him at the runway and that's why these guys all got together and complained and that's why the guy -- Ed Vestly, I don't know if you talked to Ed yet or not. He is the guy that went to the Airboss, Ralph, not Russell, and said you're going to kill somebody if you do this again -- on the next day because he said I had a close call, and it was the following day he didn't have a problem in the Helldiver.

But three other CAF pilots did and all four of them got together and went out to dinner and just bitched and whined forever and didn't do anything about it. And that's the part that -- and that's why when I -- when Jim -- I said Jim this came to -- because everybody feels bad about the accident and they go man, I feel bad I didn't say anything. I didn’t speak up. I go, well guess what you get a chance to speak up now. And Jim could have said, I -- really interested in anything in Houston, that -- I don't get it, Jim.

Sorry, I see where you are going with this, but I don't really need to know any of that. He didn't. He embraced it and that's when the whole Houston thing took on a life of its own.

That's when we talked on the phone, and you were like I got accidents messed up with another airshow. That was the reason to set the stage for, you know that's why I said look from now on if you see something, say something and speak up and if you're afraid that's okay, tell me and I'll do it.

You know, and I remember when Russell was standing there on the -- I can see it like it was yesterday. The briefing was done, and he said, Jim, do you have anything to add? Right, he always does that. He goes to Gena Linebarger, she is the one that coordinates the airshow itself. She does his contract. She does all of the -- she does the whole thing, right, not just the air piece he just does everything. Gena, do you have anything to add? She goes, no. She goes, Jim do you have anything to add?

And that was my opportunity to say, I have got one thing to add. We had some close calls two weeks ago and I don't want to see that happening again. So, if you're not sure what your line is, make sure you get with your group because you are going to debrief in formations right after this meeting you are going to talk amongst yourselves. Make sure you know where you are supposed to be and what altitude you are supposed to be at. I would love to have had the opportunity to say that and, you know, I -- now, I wouldn't have stood up in front of the Airboss and said, and by the way this -- I will make it up as you go.

That's not going to -- I couldn't do that because he has been an Airboss for a long time. I think he was so good at what he did

that he got to be that pilot I told you about that could do it all. And the ride flight thing was one of those times when I thought that's a part I won't allow. And he might have, you know, had that P-63 been 10 knots faster, you know, and he was in position.

Everybody says he was spit out but by the time he got in there and Craig could attain -- that guy knew how to fly. He was a tour guy. He had -- he was a very accomplished airshow pilot. He was going to the line that, you know, now he wasn't in trail with his other fighters yet, but he was going to the line he was directed to go to. And the B-17 was on the 1,000-foot line. He was directed to go to the outside -- the wrong way if you listen to the tapes which put him on a crossing path not much separation. Never saw the airplane. It's unfortunate but.

Q. So, just for clarification for the recording, the 100-foot separation head-to-head event that took place at Wings Over Houston?

A. Correct.

Q. Correct. I just wanted to make sure there is no confusion.

A. and it's in your notes I think. I'm not sure -- it's in there.

Q. I just wanted to make sure it was on the recording then it was not the Wings Over Dallas.

A. Correct.

Q. So, I just wanted to make sure that we had that correct.

A. Right.

MR. ETCHER: I appreciate that. I know you are tired of talking to me and I have kept you way too long. I'm going to flick it back to Sabrina. But before I do, do you need the restroom? Do you need to take a break?

MR. LASCHE: No, let's finish it.

MR. ETCHER: I'll flick it back to you then.

DR. WOODS: Well actually Bob because you are serving as a group member, do you have any questions you need to ask?

MR. HEATH: Yeah, can I just ask -- yeah, just one clarification.

BY MR. HEATH:

Q. Who authorized or who you know authorizes or controls takeoff and landings while the waivered airspace is in effect?

A. The Airboss.

Q. So, do you ever actively control takeoffs and landings?

A. No. No, he owns the airspace just like I wouldn't jump into the tower and get on the tower frequency and tell people they can't take off and land. Same thing.

MR. HEATH: That's the only question I had.

MR. ETCHER: Oh, one just other -- I don't know if you want to do it now or at some other point but if you want to see Rally Point we can put it up on the screen. I mean, I think you can.

MR. LASCHE: Yeah,

DR. WOODS: Can you pull it up?

MR. LASCHE: It's pretty -- we are pretty proud of it.

DR. WOODS: Thank you. Nobody needing a break yet? I am going to move kind of now more firmly into how you conduct an airshow.

BY DR. WOODS:

Q. So, the first is and I recognize that this is not necessarily -- if you can give me a high-level overview of how do you go about picking and contracting an Airboss?

A. So, the Airboss applies for the airspace waiver, right? So, we have to identify them early and ICAS is one of those places -- that December conference -- Airbosses are all there and they are managed by ICAS as you already know. Because that's where everybody is setting their airshow schedules for the next year. So, you get to shop around and get an Airboss.

Now, I will tell you I don't have the number off the top of my head, but I think Russell has been our -- he has done the airshow many times before. I want to say maybe four or five. You'll have to ask him. I can't remember. But he has done the show, so it wasn't like, who are we going to get for an Airboss this year. And if he wasn't available, we would have gotten somebody else.

So, he was kind of -- it wasn't that it was -- he was guaranteed to do the Wings Over Dallas airshow but it's like -- it's kind of like when you go back every year to the same -- it's a known, right? We know him and we know the -- he knows the

airplanes -- the warbirds, right? There are some Airbosses like when Jim and I interviewed him and said we don't do warbirds, we just do flip-flop acts or fast movers. And that's probably easier because basically it's like the act takes off, does its thing, lands. Hey, crowd big round of applause. Next act takes off, that's a lot easier to manage probably.

I'm not speaking that I'm an expert as an Airboss. I'm just saying that that to me is why I think a lot of people said, I don't do warbirds because it's too, you know, too much to manage, you know.

When in reality if you had a B-24 take off and just go around the pattern for three times and land and then a B-17 take off and land, you could see where, you know, you would want to, you know, put -- make it more like a World War II airshow and that's what the whole intent was. Those bombers were flying, and the fighters were doing top cover and passing over the top of them. It's for the crowd.

Q. So, let's say in this instance Mr. Russell was familiar, you have been there before. But let's say if he was unavailable, what, I guess considerations or requirements do you have in place to pick the next person?

A. So, I would have gone to Gena because we contract her to do the show and she handles the bleachers, the toilets, I mean she does it all. She does the whole big picture thing and one -- and getting the Airboss is one of them. I would go to her and say,

who do you got in mind? She goes, well I might -- she has been doing airshows for a very long time. Super nice lady. So, we're all like oh my God, I hope she is going to be available because of she is not, then one of us has to do all of that work and we don't have the time because we still have a day job going. We will end up taking off a week before to help get everything set up. I'll, for instance, I engage the tug team. They'll come down -- they come down from Kansas City every year and they do all of the pullers, the marshallers all come out. That's a whole other CAF detachment that manages the airplanes in and out, parking. Security is another one that falls under me when I'm there.

So, I don't -- the airshow is kind of like it's set in motion. Once it's going, you know what I mean, there is rides in the morning -- airshow rides at night, that's it. It's not like I jump in, and I go, look, tomorrow I don't want to see that act or whatever. You know what I mean? It's pretty much the same thing for three days in a row.

Now, if there is a problem and something doesn't work out like hey, that B-29 had too much overtake over the B-24, tomorrow I want to put you in trail with the B-24 lead. That could happen but that would be the -- a change that the Airboss would make at the briefing, you know, if something didn't work out.

So, it's not that there isn't adjustments that are made, and I think the show on Saturday would have been the same thing on Friday would have been the same show, you know what I mean. It's

not like that they -- the weather day changed anything. If nothing else the weather day probably gave people extra time. Because we knew we weren't going to fly and everybody is kind of doing the mill around standing there waiting, you know. It's like that would have been more opportunity than just to attend the pilot briefing and go get into your airplane. If that makes sense. So, there was -- the -- everything was -- the briefing wasn't out of the ordinary but to answer your question, I would go to Gena, and I would say, Gena, you know, who do you got -- who do have on deck, or you know if Russell can't make it, who are we going to use?

(Pause.)

Q. So, going back to determining who is on deck, I guess actually both for the Airboss and for the performers. I recognize that Gena handles that, but dealing with what Commemorative Air Force wants in their performers and in their Airboss. How does that communication happen with Gena? How does Gena know what you want?

A. So, Gena doesn't contract the airplanes. We tell her what airplanes and of course it's a volunteer organization so I go, hey, you guys want to bring the B-17. Yes.

Q. Okay.

A. The B-24 and B-29 live here and we know they are going to want to do rides, right? I know the Devil Dog, the B-25 is going to want to come out. So, we have a cadre of people that come back

to the same show every year. But then once in a while we do something unusual like have all of the B-25s come from even California. That's because there was an anniversary for B-25s. We schedule that. We put the -- we say hey, who is going and who is not going. I'll go but you have to give me enough fuel to get there an back. Okay, great, you can do it.

Because sometimes we bring airplanes out here that can't give rides. They are just single-seat fighters and I have to pay for their gas to come here and back if I really want them at the show. Whether they are flying in the show or static. Static obviously is that's where they just show up and they are just like look, I'm going to park it. It's a neat airplane. I'll stand next to it and tell people all about it. That's an option too, but most of the people that come out to the show want to fly in the show if that makes sense. They get paid for airshow fuel, positioning, and de-positioning fuel. The only fuel we don't reimburse them for is ride fuel. If they are doing rides, but that's up to the OPS -- my department handles who is coming.

We send out invitations who wants to come, here is our theme. The marketing people pick the theme, right? It's going to be, you know, Japanese surrender or whatever it is, you know, or D-day. They will set -- they will pick the theme and then we'll match the airplanes to come out around that. But the same airplanes usually show up.

I got out of doing air drops. When we were planning for

Normandy and I -- as a C-130 guy I know the risks involved with Paratroopers and static line paratroopers especially. C-47s we would have them go off the runway and trail and drop paratroopers and that always made me nervous because it's like I know the risks. It's not just the airplanes, it's all of those people that land and they land in the trees, or they land on the -- they break a leg. So, I didn't like doing airdrop, but I knew it was important to get ready for the -- to promote the Normandy thing.

So, every year the Paratroopers or the reenactors call me, and they go, are we doing air drop this year? And I always go, no. Because I don't want to do it and the other thing is you have to wait for the pyro field to be blown up where all of the explosives are because that's the drop zone. So, that means that it's going to be the -- after the field is clear it is going to be 4:00 or 5:00 in the evening and people are already at their car by then. So, it was a risk that we didn't need to take.

Q. So, what I'm trying to drill down to though is everything is said and done after the airshow, what is your mechanism for recognizing that, yep, all of this went perfectly, all of this went well versus no, there were some problems here whether it's, you know, bad behaving pilots or it's bad behaving aircraft. How does that information get back to you? How do you absorb that information?

A. So, I get -- when I get the information out of course everybody has the facts after something happens, right? And like

I told you earlier if there is anything I can change. If there is anything I can change to avoid that from happening again, that's the action that I feel like I need to take. And when we sat down and talked about the airshow guide -- the guide that's at the end of 60-1 was the result of this accident.

Now, I know the final is not out yet, but I can't wait for -- if I know something needs to change even though it may not be well received and I may be erring on the side of caution, I can't not take that step, right?

So, that's -- so, how do I get that out there? So, we sent it out to the units saying, guess what, here is a guide for you on airshows. We did another thing that was proactive, and we said, I need to know who the Airboss is going to be at your show and I'm not trying to be heavy-handed, but people knew about the Houston show. They knew that that was getting crazy. They didn't want to fly under that Airboss, and I said you know what, I'll do one better. You're not going to fly under the Airboss even if he is there so if there is an airshow coming and I wasn't allowed to say this because I wanted to say, look, and I and Ralph is a legacy -- this is Russell's father. He is a legacy in the business, I get it. He has been around forever. But he was getting up there and he was making a lot of mistakes.

I can't tell people flying at that airshow they can't fly under him as an Airboss, but I can do that with the CAF airplanes and pilots. And if I know something and I don't take action it

now I'm just as guilty, right? Now, it's on me. So, we put a guidance out that they had to call before any CAF unit went to an airshow. They had to call us first -- Bob and I. We called it positive launch and it was just because I wanted to find out who the Airboss was going to be and the rumor was we had one in February, Russell was going to be the Airboss.

The unit is calling me going man, he is the Airboss. I go he doesn't have an LOA, but you know what they had it all the way up to the day before the show as being the Airboss and I just said I don't want -- you're not going. I can't have somebody go to a show with Russell as the Airboss when the investigation is ongoing. It just doesn't make any sense at all. It turns out he wasn't going to be the Airboss but he was there. You know what I mean?

So, that's why we did positive launch. We just said, look, I want to know who is going and we made some calls to find out who the Airboss was going to be because I didn't want to put my folks at unnecessary risk.

Q. You talk a lot about the guidance and the procedures post-accident which is great I did have a question for that later, but what were the guidance and checklist and SOPs whatever that were in place prior to November 12th of last year?

A. Sure, so that would be the currency and Rally Point information that lets you know you are qualified to even fly the airplane, right? Our general operating manual, 60-1 -- now it

didn't have the appendix for the airshow guide because that didn't happen yet. That's put out every year. That's the guidance on how to fly these airplanes and what's appropriate and what's not. And it tells you, you know, if you do a low pass you will lose your flying privileges. I mean, so they know -- the pilots know how to operate these airplanes and what's required of them.

It also lets us -- Rally Point lets us know when the last time they had a check ride when their last flight was, how their currency looks, all of that kind of stuff. So, before the fact, it's the same -- to answer your question, it's the same as flying every other day that we're flying. It's not -- there is not like hey guys, go into airshow training mode for two months to get ready for the -- because airshows are happening all of the time in the CAF. This is just our -- this happens to be the one we do -- we put on.

There are airshows happening at units all of the time that we are not even at, you know, simultaneously because there are so many things going on out there across the country. So, the guidance has to stand alone I guess is what I'm trying to say.

Q. And this guidance it's -- you have it --

A. It's 60-1.

Q. -- digital though.

A. Yes.

Q. Okay. Is it possible for us to get a copy?

A. Yes.

Q. Okay. I was just making sure.
A. And Jim he had a copy he gave it to you. But I can -- it hasn't changed. Well, I gave him a copy of the guide because I called him and I said, hey, we are putting this airshow guide out, would you like a copy?

Now, I've got to be careful because I didn't go to ICAS and say, by the way, this is the CAF's guide, and here is what we're doing. Because they would be like, hey man, you can do that for the organization. So, I was very careful not to overstep and say, you know, everybody in the world, this is our risk mitigation tools for the -- for airshows for now. And that's not appropriate. But I can do it for this organization for sure.
Q. And you mentioned in this 60-1, you mentioned the performers, the pilots themselves but is there any section there about how the Airboss should go about their duties?
A. No.
Q. Okay. So, who provides the guidance for that individual?
A. ICAS.
Q. Okay. Which --
A. That's where they do their training too and the FAA issues a -- I know you guys know this, but the FAA issues the LOA. That authorizes them to act in that capacity and they have to go through their training -- recurrent training every -- I think that they do it in December sometime. They have like a level one and a level two, but they are required to have an LOA to be able to

perform as an Airboss.

Q. I don't want to put words in your mouth, so you as the Commemorative Air Force you are accepting ICAS' standards for Airboss performance. Does that sound correct?

A. At the time, yes. Before the accident, yes. After that, no. So, that's why we put a guide out saying and I didn't go to ICAS and say I'm poking you in the eye because of what happened. We are changing our procedures because the Airboss could say, man, it's my airspace, I'm the guy you can't tell me what I can and can't do.

Well, all I can -- that's why I went back to the thing where I said well, all I can do is control who shows up at the airshow or not. And if I feel like somebody is going to be doing something that's not -- that's unsafe I'm not going to let my people or airplanes go to that show. And that's all I can control. I can't do it for the industry. I can just do it for the Commemorative Air Force, that's all.

And I'm passionate about that. But people can call me and say, hey man, we are another organization. Can we get a copy of that airshow guide? Happily share all of the stuff. It's not proprietary. ICAS can have a copy, but they probably won't like it but that's all right.

Q. Do you have a feedback system in place? I know you said after Wings Over Houston there were some --

A. Yes.

Q. -- during Wings Over Houston there were some issues that unfortunately did not come to light until after Wings Over Dallas.
A. Right, you got it.
Q. Is there a feedback process?
A. Yes.
Q. And can you explain it to me?
A. Sure. So it's part of our SMS program and if you go on -- when you go on the operations website that I told you about, the cafoperations.org, and you'll see us on the video. There is in bright yellow is a safety tip line. It's our hot button line just like the FAA has and if you see something or you want to report something and I get, I used to get some wacky inputs like, you know, something has nothing to do with flying, but it's like I basically -- it -- mainly it's only the pilots that look at this website. It allows you to anonymously report something that sends an e-mail directly to me, and I have to address it.

I had one where the pilot was somebody said this airplane is unsafe, it's going to crash, is going to kill people and I called the OPS officer, and they said that guy proposed to me yesterday and I said no -- it's a female. And she's like, that's why he's mad and that's why I did that. And I go, okay, I just -- I gotta follow up. I can't just assume this is a crank call. It can be from anybody, and if you leave -- you have to leave me the contact information to be able to get back with you.

But I have to take some kind of actions, just like I told you

before. Had those guys all said, hey man, this show is crazy and but the fact that one guy got up and said you're going to kill somebody to the Airboss in front of all the other pilots didn't even make a dent, you know. That part was disconcerting to me, right?

Then they all got together and complained later, and then they -- I didn't know about this until they called me when the investigation was going on because they're like, hey man, I have something that might help out. And that's why I went to Jim, and I said, man, are we -- is this even part, can we do this. And Jim said, oh, I want to hear it all and that's why he got involved, you know what I mean. I can see where you guys might say man, that's a whole other air show not part of this investigation. But it really plays into the human factors thing which is why I keep hammering it at home.

Q. So --

A. Do you want yes or no answers? Because I get that impression.

Q. No, I don't. No, in fact, I really don't care for yes or no because --

A. Well, I get the impression you are not getting the question --

Q. Nothing is ever quite that binary. My question is that given you have this length at the top of, you know, your website, however, there was consternation after Wings Over Houston, how do

you know your process is working? How do you know what's out there is coming to light?

A. So we make them watch the video that talks about that -- I even point to the little -- you know, it's on the screen. We talked about it in the video, and this was after the accident, right? We even did it before, though -- it was always up there we just highlighted it in yellow now. Same safety tip line. We have an SMS guide that's published. We have a training program that's put out every year as a PowerPoint presentation that they have to watch. They have to take a test, so you have to answer some questions on it.

So you have to -- you can't just say, oh, I don't really know anything about it, but it is -- because it -- and even the FAA defines it as -- an SMS program shouldn't be so onerous, it should be all-encompassing and room for flexibility. It shouldn't just be, you know, the bigger the package, the better it is. It's really about, like you said, closing the circle, right?

So, I was even concerned that I didn't get any tip lines and after the accident, I went in and sent one to myself from my wife's computer just to see if it -- and it worked. It sent me an email. I go, okay. Because could you imagine if I didn't beta-test this thing all the time? I'd be worried that man, that's why I'm not getting any tips because it's not working. That wouldn't happen because people would say, hey, you SOB, I sent you a tip line and you didn't get back with me. You know what I mean? So I

know it's -- I know the system is working and getting people to use it takes education, right? And I think this was a big step and the fact that these guys could have just all said, hey man, I knew that was going to happen and they could go out for beers that night and commiserated and not done a thing.

But they -- at least they reached out to me and that's the improvement that I feel like we're making because I can tell you five, six years ago, you know, I wouldn't get anybody to talk to me about any of this stuff. And I think they know, and they trust me. They know that I'm trying to do the right thing and although they are very concerned. They don't want to lose their privilege of being able to fly these cool airplanes in an airshow. They realize that safety transcends that right and this accident really brought it home for everybody because these were all exceptionally qualified folks. And it caught everybody flat-footed, including me. I mean, I've never lost anybody and under any command I've ever had, you know, I always used to be proud of that. I can't really say that now.

Q. Can you ballpark for me like within the last year or so -- well, let's go prior to the accident and within the last year, on how many reports do you get?

A. I haven't got -- I did not get any in the year prior -- zero -- but that -- but they all know about it. You know what I mean? It's like and I told -- I think there's some people that are afraid about anonymous like -- but in reality, if you send me an

anonymous safety tip, I'll follow up on it. But if you want feedback on what I did, you know -- it's -- I was trying to think of an example.

It's kind of like I follow up on it, even if it's something off the hook, like that lady that was getting the proposed to. And I followed it up and I called the guy. I mean, I was like -- I didn't just say, oh, great, I'll take your word for it. I had to verify too because you never know somebody might be putting a safety tip out there and they are like -- you know, I don't feel comfortable letting anybody know who it is, or I don't -- I'll have somebody else submit it. I even tell them that I said, have somebody else put the thing in there if you don't want to or call me.

My phone line -- everybody's got my number -- when I retire from this job, I'll have to get a new phone. I can't keep the same one.

So like anything else, to answer your question, it's putting the process out there and hammering it all the time and talking about it. And I have to say our SMS program wasn't as good as it was until after the 909 accident because there were people on that crew that didn't even know what it was. And they were like, I'm just a scanner, I'm just a loadmaster. I don't really know SMS, you know. We made flight engineers do CRM.

That was another new thing because our flight engineers were like, no, no, that's -- the pilots do that. No, you're right up

there in the cockpit with them. You're part of it too. Those are all things we did to kind of improve the process, but I can't -- other than talking about it, publishing it, referencing it and I mean and having the obscure website hot button there for everybody to see, I don't really know what else more I could do. You know, maybe offer $100 gift cards that people could use -- I don't know. I'm being facetious.

Q. You mentioned earlier that six years ago, it was not the case whereas you don't feel that people would have been as responsible or as comfortable even submitting concerns. Why do you think that is?

A. Because I can -- I'll give you an example. We had our Stand Eval meeting about five years ago and the same thing that I told you I tell units, that's how I add it to my bag of tricks. We were sitting around that meeting in December and it's just -- we had people flying in from out of town and we had a conversation and I said, man, where, where do you guys think the next accident or incident is going to come from? And everybody unanimously said Cowden Ward in his P-51. And we were like, oh, my God, you're right. That's better than the person I was thinking of you know what I mean?

And we had this long discussion and what do we do? We said, well, alright guys, have a nice Christmas, you know, we'll see you next year and we all left. About two weeks later that guy piled his airplane in with a World War II veteran in the back seat into

a parking lot -- under the parking lot he went. And we all were like, crap, we -- not that we knew it because we're not clairvoyant, but we thought that we mentioned that. And you know what we did? Absolutely nothing. Nobody called him, nobody called anybody he knows. You know what I mean? Not that it's our responsibility, but it's our duty to try to protect the industry and even though he wasn't a CAF member, he was a CAF member I shouldn't say that, but he wasn't flying a CAF airplane.

It's like that T-6 that went in up in Oshkosh, right? The person flying it was a CAF member. I was on my way up to Duluth, Minnesota to visit the unit up in Lake Superior. I would have to turn around and go back had that been our airplane, but it wasn't, you know. But it -- does it affect -- it was a CAF person flying it, right? It's a T-6, it's a World War II airplane. I need to learn from that too and get the word out to our guys about that. I'm not saying -- I won't be a person that says what I think it is. That's not my place. But that's the kind of information that we have to look at.

I have to look at everything when it happens out there and how -- what can I do to put out -- like I said, safety bulletins. I put those out saying hey, here's what happened. Sometimes it may even be just an airplane taxing into a truck on with, you know, on a ramp -- it's like they ding up the wing. It's like I had a bunch of folks taxing an airplane around a hanger, and there's -- it was as a T hangar, and the airplane was parked out

there. Some guy was working on his airplane, and they couldn't get out in their CAF PT-19. So, what did they do? They decided to taxi around the back of the hangar, which nobody ever does, right? It's -- there's people park cars there and the guy goes around the corner, and he has somebody get out because he's a good pilot and has somebody wing walk the corner of the hangar. And the guy standing there like this, and he went around, and the plane went and just popped up and landed on a chain link fence, poked a hole through the bottom of the wing. Now the guys and he has to call me and I'm like, what were you thinking? You know, we do that all the time.

But you know not all these guys are -- they're not all airline pilots with 10,000 hours. Some of them you know, and I want to -- I encourage younger people to come up and learn how to do this stuff too but.

So, I have to take that and I'll -- will I use it as an attention getter at our conference every year, because we do have a CAF conference where we talk about it -- we own the whole forum for operations for two days, Bob will a presentation, we'll do maintenance, we'll do training. I'll do safety. I'll do insurance. We cover this in front of all the unit leaders that have to come here to attend that conference. It's at the end of every February and March. I probably didn't mention that too, but that's our big there's no flying involved with that. It's just all that come out here -- now simultaneously, there's a financial

the CFO's doing financial presentations and the marketing persons doing marketing and the development persons doing development and education is doing their thing. I don't attend any other meetings because I'm totally jammed up in just all my stuff, and we usually have the hanger out back here to use it. And I'll probably have -- I'll have up to 150 people there at one time. And it's -- and we always open up for Q&A at the end too. It's not just me, you know talking.

Q. Getting back to Wings Over Dallas, about how far out do you start to prepare for an event like that?

A. So, usually it's the summer time we what we do is we have a meeting like it'll be June or July and we'll meet once. The first meeting is pretty much like, hey, get ready. I know it sounds like, you know, October and November is a long way off, it's not. But we'll have a meeting in like June and then we have a meeting every 30 days. So the next month we'll have another meeting and then as it gets closer we go to twice a month, weekly before that. Then we start to involve in -- I mean, I can't have first responders show up or EMS people come out seven times, but we'll bring them out like when it gets close to the end. That's when we do our table top exercises at the very end, right before the show. Usually one to two weeks prior.

And then we'll have another meeting again last minute stuff you know how many ARFF trucks we got, what's happened, and how many police officers are going to be here, that kind of thing. So

they're all -- it's -- as it gets closer, it kind of builds to a crescendo to get everybody together. But we start off where we may have a meeting in this room and it may be just ten of us the first month and we're like, what do you want to do? What's the theme going to be? Then they'll go and not that tells me what airplanes to get. So maybe at the next meeting, I'll say here's who is coming. Here is who is down for maintenance. Here's who's not coming. Blah, blah, blah.

Q. And for the tabletop -- right prior -- you said a week to two weeks out, is the Airboss part of that?

A. No.

Q. So, at what point does the Airboss get roped into? You know active shooter exercises, this is what happens if something goes wrong, all that?

A. He is not part of -- I guess he could -- I don't know if he is even invited and doesn't -- don't put those words in my mouth. I'm not sure but I know that Gena Linebarger is there and she's the one who hires him and talks to him. So yeah, I would ask her, I would say, hey, do you sit down and -- did you invite Russell to the tabletop, and he decided not to come. I don't know. I usually don't see the Airboss until the day of the first show every year. I've never seen him at a table top.

Q. Understand that like I said, I don't know what is perfectly acceptable if it's outside of your purview. Who would you say is ultimately responsible for the airshow process start to finish?

A. In this case, and he was in charge of the command trailer, it's the airfield manager who takes that over. He's the guy that basically is in the trailer with me. I'm the OPS guy or I'm the CAF guy. I'm the only CAF person in the trailer, but he's the official incident commander if you will. That's what you're really looking for is who's got that title?

Q. And who was that for this -- for Wings Over Dallas?

A. It's Raphael -- I think his last -- I'm trying to think what his last name is. He's relatively new, but I'll give it to you. And I don't, I don't think -- he didn't interview the last time either. Let me see if I can find out where he's at.

Q. And that's alright if we have to follow up later.

A. Well, I'm trying to think of his -- I think I know his last name, but I might not. I'll get it for you.

Q. No worries. And then so that's the airshow process. Now, the logistics, the actual choreography for lack of a better word of the airshow. Who is ultimately responsible for that component?

A. Coordinate -- when you say coordinate for the airshow itself -- the whole thing --

Q. Choreography.

A. Choreography for the run of show. The Airboss does that.

Q. Okay. And I think I know the answer to this, but the person who ultimately approves, yep, that's what we're going with, this is our line-up, this is our choreography, this is what we are going to do, who is the approval authority for that?

A. The approval authority to get the -- to bring the airplanes here is ours but I don't get it -- at the end of the pilot briefing -- that's where everything happens at the pilot briefing at most airshows. I don't go and so and so you have my approval to do the show, go forth. It doesn't -- there is no one person that blesses it.

The Airboss puts together the program and basically says, here is what we are going to do. That's why we decided to change it and say, you know what, we are going to put our own restrictions just like I do with our regulations on top of that so that an Airboss can't get up there and say, you know what, I'm going to just figure it out on the fly, go out there, start engines and meet me in the air.

That's, I'm being fictitious but it's like we don't -- there is no one person that says this airshow is blessed to proceed. There is a waiver that's applied for and the Airboss applies for that waiver for the airspace. Obviously has to get that and needs to know the times, but I don't see the run of show and what's going to fly but it hasn't changed in years. It's the same trainer parade, you know what I mean, I usually see that the morning of the setup. I don't say, hey, this year I want to -- you know we may make an input and say this year we got the T-28 Trojan Flyers.

That's where Gena will say, hey Russell, here is who we got coming, there may be other acts that show up and he has to know

how to fit them in the schedule. She'll get that -- he'll get that from her.

Because I don't contract outside CAF airplanes. I don't do that.

Q. Who do the performers then submit their SAC cards to?

A. They will submit that to the Airboss and the FAA -- they are at the table after the briefing.

Q. So, we talk a lot about this briefing. Can you give me a walk-through of what and again this is prior to Wings Over Dallas, I recognize there might have been some change on how you do things since then, but for that particular show, can you walk us through --

A. Sure.

Q. -- the requirements of the briefing, who is there, and what happens during that briefing?

A. So, I have a copy of the briefing. It's not mine. It's the Airboss' briefing. It's the one he uses I'm sure when he goes and does other airshows. It starts off with an introduction on who's going to be flying in the show, and there's a whole list of airplanes. You've seen the briefing, I think, haven't you? It lists all of the airplanes that are there, and they'll be like, hey, that didn't make it and he'll go, OK, so and so is not here -- that B-25 is not here. So he talks about who's going to be in the show, who's going to be static, who's doing rides, and then they'll say, you know, here's the time hack, here's the weather

today, here's what we're, you know, he briefs the, of course, he briefs the weather and then just talks about the lineup. Here's what we're going to do. I want, you know, the trainers to be ready to start engines at this time. And there's a time there's a timeline along the side of the left-hand side of the sheet, which pretty much just says here start engines at this time, taxi. I want the bombers to be ready to go -- Tora your act is from like 1:00 to 1:20 or whatever. It's blocked out, and of course, if there's something that changes if one of the airplanes is flying breaks or doesn't make it at the last minute, he has to modify that. I mean, those are the kind of audibles you'd expect an Airboss to do.

But the minute the waiver starts, he takes control of the airspace and it's his baby from there to the end. The briefing itself goes through to continue on it goes through -- he talks about where we're going to fly, what patterns we're going to be based on the winds, what runway are we using that kind of stuff. Orbit patterns for the different airplanes to go to for if there's a knock it off, he briefs that too. I mean, I'm not going to get in his presentation, but it's pretty canned. It's like you know, if they're -- if expect this or that, whatever. If we have a runway shift because the winds change and if it's not possible, he probably won't even brief it, but if it is, he'll say, hey, we're going to do this, we're going to do that. Everybody goes to the holding patterns, make sure they're at -- he did deconflict

altitudes with holding patterns like you're at 3000 or whatever and he lets people know.

Ride flights because he does control those was going out to where you're going to go, it's like you're going to go to the church and you're going over the crossroads and then you're going to come back in and that kind of thing. And he has it marked out on the map, you know, and the pilots are all in the -- they have to be in the briefing to attend or to fly in the show they got to be there. They can't just, you know, say, hey, what did so and so say at the briefing? So, he'll go over that. He does cover the knock-it-off call. And then at the end of it, I'm summarizing but it -- he'll talk -- it's a lot about -- somebody might say, hey, you know we need more time to -- it's cold out, we need more time to start, we can't start and taxi that soon because we need to warm the engines up a little longer. He'll be okay, you know, and he'll make modifications to that too. Just little stuff like that but at the end, he'll ask about the -- he -- when he asks for questions, he always says questions, but I rarely see anybody go, oh, I got one because and he's adamant about this, you can't really conduct a briefing in front of all of those people and say, and everybody raising their hand constantly throughout the thing, but at the end, he does offer it up to questions.

And then he asks Gena and myself if we have anything we want to add, that's he always does that, it seems to be the same in every show. We'll talk about fuel. How are we going to get fuel?

I mean, that's another thing that kind of I'm responsible for. You know, where the fuel trucks are going to come from? Where are they going to -- who's going to get -- need fuel, who's not going to need fuel, who's going to depart the pattern on the last day to go straight home, right. They don't need to come in and land just for fun. If they're really heading out, then they may just bug out of the pattern, and he'll coordinate that sort of stuff too, so he knows. I can't think of much else, I mean, it's --

DR. WOODS: How about we take a break?

MR. ETCHER: Time is 10:26 local.

(Off the record.)

(On the record.)

MR. ETCHER: Back on the record at 10:32.

DR. WOODS: I actually just have two more questions or so and then I'll pass it again back on to Shawn.

BY DR. WOODS:

Q. You mentioned during the meeting process that the performers have to be there, correct?

A. Yes.

Q. Is that a -- whose requirement is that?

A. That's ours.

Q. And this is prior to Wings Over Dallas or after?

A. Yes, yes.

Q. The reason I ask is --

A. Go ahead, Bob.

MR. HEATH: Well, I think he misunderstood the question, or I misunderstood the question.

MR. LASCHE: To perform in the show, you have to attend the pilot briefing.

MR. HEATH: That's it -- it's a requirement by the FAA and part of the conditions of the waiver.

DR. WOODS: Okay. Thank you for clarifying that.

BY DR. WOODS:

Q. And the reason I ask is because I believe prior to the Wings Over Dallas show there were some performers that were not in attendance at that pre-brief.

A. So, that can happen because remember how I told you how they're doing -- how there's rides that go on before the show? Sometimes if somebody is going to perform in the show, there's different acts that they're going to perform in. If they're actually -- some of the people don't have enough people to do rides and attend the show, so they'll have a representative brief the people afterward about what they saw.

So it's -- in the case of the B-17, they were doing rides -- remember I told you about, hey, we need more time because their engines are cold. If you're just starting your plane out and it's cold in the ramp, it'll take longer than if you're an airplane that was just landed after doing rides. So that's why somebody have a discrepancy but so the -- I guess I should clarify. A representative should be there. Now, if you're flying a single-

place airplane and you just can't say, hey, you know, I'll pass it on to so and so. It's -- everybody that flies in that should be at the show -- at the briefing.

Q. Typically, then, how far in advance prior to the briefing taking place is that known, and who approves that individual not being at the pre-brief?

A. That would be -- that would usually be they would notify either Gena, probably Gena because that's how I found out about it saying, hey, look, we got rides scheduled. We didn't have any rides scheduled. I was going to be at, but they all know when the pilot briefing is going to be -- that gets advertised. People aren't going to -- they all know when it's going to be -- usually 8:00 in the morning. They would notify her, hey, I've got to do a ride and it takes two pilots to do that. If it -- could be the copilot is not at the briefing, but the pilot is at the briefing. And you'll have to ask folks if you have anybody that interviewed the last time that wasn't at the briefing, I would -- I did not know that, but I wasn't in on the interview, so. Len Root was doing, I believe he might have been the only guy that was doing rides in the very morning. I'm not sure. It was either Len or Terry, one of those two guys was doing rides on the B-17. But Buddy Cook -- he ended up flying on the flight that you took the very first flight of the day, I think it was, wasn't it? So Buddy was flying that airplane. Buddy wasn't performing in the show, so I'm not sure which one it was, but it was possible?

Q. And then my last question for this round is that we talked a lot about, about how things were structured prior to this event. What changes have you made to the air show process since the event? I know that you've peppered in a few of them in our just conversations with each other, but can you give me a big overview of these are all of the changes we've made since then?

A. So that's the -- basically the supplement to 60-1 that I talked about that we just published, and I gave Jim a copy and I'll be happy to give you guys a copy of it in case it didn't come in. But it was basically the tool to empower the pilots to ask the right questions, know what altitudes they are supposed to be at, know that they have lateral and vertical separation during the show, where they're supposed to be, and also not to do any dog bone patterns. That's pretty much an airshow thing for bomber roundie rounds.

So, if you take an airplane and you're flying down the runway like in the direction they were going to the north, the Airboss could say and you hear this on the tapes a lot, 90 left right 270. What he's saying is that's left, and then a right, that's a dog bone. That's what it's called in the airshow business, right? So, dog bone left dog bone right, 90 left right 270. And you have big airplanes like B-17s and B-29s where if you are flying a P-51 Mustang and you get a bubble canopy and you're going left or right and looking around for people, you have a visibility that's greater than somebody who's in the plane turning left and right,

and now the other person can't see anything. They're on the other side of the cockpit. Maybe the person not flying -- it requires coordination -- it's too complex, right? And we decided to take the dog bone pattern. You know what I mean?

And now if you want to fly, you go around in a big circle just like the trainer parade. And does that eat up more time because the dog bone pattern will let you be in front of the crowd? Oh front of the crowd, oh, you know, back and forth, where the race track you're just going out and on the backside of that race track it's not as cool, you know what I mean?

So, people are like we've always done dog bone patterns and we are like, yeah, well, this time, and when it comes into the confusion on where are we supposed to be and whose dog boning left and whose dog boning right and whose got so and so in sight, it gets kind of -- it gets chaotic. And that's why we decided to take that out of the equation too.

I'm trying to think anything else about lateral, vertical separation, the dog bone patterns. Ask empowered the guys to ask questions and in breakouts the -- after they get done with the big briefing that Russell does. He'll go fighters you're over here and bombers you get over here and they'll have separate breakout sessions about what they're going to do specifically for their piece of the -- and if there's a question to go, hey, man, go back and talk to the fighters and say, you know what I mean. Go back and make sure that you guys are all if there's something that

changed in your little mini briefing, don't forget to go back and, you know, let everybody else know that's participating in that act that you decided to do something, you know. And they will engage the Airboss with that too.

Sometimes they'll call up and to answer your question, who's in the briefing? The Airboss will call off each airplane and then somebody goes here, here, you know, and you see, it isn't like he just goes I hope you guys are all here. He does a roll call, you know, and if somebody says here, they're here for that to represent that airplane. It may be the one of the two pilots if there's two.

DR. WOODS: All right. Shawn?

BY MR. ETCHER:

Q. Again, I thank you so much. You've given me a huge education so far. My brain is still trying to chew on all this. So, I appreciate that. I've got a few last questions. Second round is always a whole lot quicker with me, so I appreciate the time so far. So sorry, these questions might seem a little discombobulated, because they're just ones that pop into my head randomly. So, early on you were talking about your five accident incident education to all your units. Is that just CAF events?

A. Yes.

Q. No -- not other --

A. Correct.

Q. So, like when the Collins Foundation, for instance, had

theirs, you didn't give any kind of a briefing on that?
A. No, it's not my place and I think that you guys have the -- you guys, you know, are the probable cause authorities on that. So, when you come out with a final report, I don't ever get ahead of anything and saying, let me tell you what Jim Lasche from the CAF -- that would be a mistake. There are people out there that love to get on Facebook and social media and just pontificate. We all know that. I don't want to -- I never put into any of that stuff. And I even tell people and you'll notice if you watch the video that we just did in January, I didn't even mention the accident. I didn't mention it at all because I don't want to go down that road. That's not what the training is about. This training is ready to get everybody ready for this year that's going to fly.

We all knew what happened just two months prior -- less than two months prior. We got it, but I didn't talk about it because I don't want anybody else talking about it either. You can have your own ideas or, you know, pontificate all you want, but at the end of the day wait for the people to come up with the facts and determine what the cause was. That's the way it is, so I don't comment on other organizations, and they do comment on ours, you know what I mean, but that's fine, I don't engage.
Q. Okay, no. No worries. I know Sabrina had you talking about the e-mail, people can send in an e-mail for safety emails and things like that, and forgive me if you answered.

A. Well, it comes through Form Stack, I should clarify. It's on our website and it's a hot button link and it shoots it through Form Stack which sends it to me.
Q. Thank you for that clarification.
A. And they can put in all the details they want or not.
Q. Okay. So, and I think you said it, but I don't want to put words in your mouth. How many of those have you received in the last 12 months?
A. Zero in the last 12 months, probably 2 before that, and you know nothing that caused me to -- well, you're not going to see people put in things on that thing saying, hey, we should just give up flying airshows altogether, something like that, not in the CAF because it's an internal website but it is open to the public. I mean, you guys could go in it on your lunch break and put in a safety tip if you want. So it's open to anybody.
Q. I won't, don't worry.
A. No, that's okay. But it's mainly, it's an internal process for our program. Can somebody else go in? I think ICAS has a program called ICARUS which I found out about doing the interviews. ICRUS was their report system that they use, and it was funny that a lot of them were talking about they were like, yeah, I really -- I know we have it, but I'm not sure how, you know, that -- like you said, a good -- the best program that's not out there and understood is nice, but it's not effective. So we learn from that and believe me somebody shows up and joins this

unit now and then I run into him in December, and I go -- I don't walk up to him and say hi, Jim Lasche, what do you think of our SMS program? But I will say did you watch the video, you know. I mean that's -- and you have to give people time to join, you know, and you know, I don't want to send everybody at a scrapbooking school right off the bat. That was a joke.

Q. So with that, if somebody reports it, it can come to you anonymously. Is that correct?

A. Yes.

Q. But -- and it maybe I misheard so please, that's why I'm asking questions for clarification. It says -- I wrote down here that they have to put in their contact information so you can reach back to them.

A. Well, no. If I -- if they want to be contacted, I mean cause some people might -- if you put an anonymous safety tip that's not really anonymous if -- if I call you. But most people, if they really want to, they don't want to say something in front of their unit or anybody in the unit. They'll throw it to me and say, and hey, by the way, don't say you got this, whatever. But if I want to call back, I want to find out more about what's happening. And I want to basically dive into the problem and basically say what do we got here, and you know and if need be, they'll sometimes they'll just say like, you know, I need to know what you're going to do about this, you know, or something like that.

I had, I should say we had another instance. I was thinking

about something earlier. We did have an instance with somebody flying an airplane and it was a maintenance operation's food fight between two people in a unit and usually what happens is when two people don't agree, they weaponize the airplane, right and the airplane becomes the avatar for which they fight over.

I always say that I've never seen a group of more passionate volunteers than I have in the CAF and I -- and that tracer goes both ways right? Sometimes the passion works against him. But this unit had a fight going on and they were arguing, and they called me, and this wasn't -- they didn't hit the safety tip button. They just called me and said, hey, I want to come up and want to present a problem with some maintenance stuff. And I had the maintenance guy said I had a problem with the operation stuff, and I always tell the units the same thing. Bob is going to roll his eyes in about 5 seconds. And I go remember, a lot of these issues are unit issues, they are leadership issues. You -- can you fix this by yourself? If it's -- especially if it's two people fighting, maybe the prominent people, maybe they'll get half the organization to side with each of them and it turns into a full-on, you know, cage match.

I always say if you call me then you've invited -- if you invite me into your house I'm the vampire, right? You don't really want me in there, but if you really need me, I'll be there. But the garlic, the holy water, the mirrors, all those tricks don't work once I'm there.

So, if you bring me in -- and a lot of times one side will tell me something and then I'll go out to the unit, and this may be why I don't get a lot of hits on the safety tips. They'll call me and say we've got a problem, Houston, and then I go down there and the other side, it says, what are you doing here? Why is the headquarters even involved in this? And I go well, you guys called me in. I don't want to be involved in it, but once you make me involved in it, I will -- I can't go away right? Now I'm here and we're going to fix this problem. I call it the Texas two-step because a lot of times you go down there and you give them the what for and then you go, don't make me come back -- because you leave them the way they are and then you go, well, I hope I don't have to come back down here and turn this car around.

And then you come back home and then they either get it together and realize that somebody's going to get, you know, somebody's going to lose their position if it's an OPS officer or maintenance officer or their flying privileges or whatever. Or make it -- I may elevate it to kick somebody out of the CAF if need be. They get that message, but most of the time it ends up being a two-step and you end up going back.

But so -- just like the -- a classic example is the guys that called me after the air show at Wings Over Dallas called me about Houston. They -- these guys knew there was a safety tip, but they just called me and said, hey, I got -- I want to tell you something. So I didn't go back in and say, well, you need to go

ahead and officially hit the safety button and put it in -- you know, I didn't do that. I usually don't. So my -- I'm pretty approachable and people know that since I've been doing this for a while they're not afraid to call me and tell me if there's a problem. Sometimes they're afraid to take action. And I see it, they're close to the fight. They're in there and it maybe, you know, sometimes it's spouses and people, you know, it's kind of crazy. It's volunteers, you know.

Q. So, just a ballpark, I know you said a lot of people call you --

A. Yeah. How many calls?

Q. I know just a ballpark in a given period of time. And I just saw her scratch that off very enthusiastically. But how many calls do you get in a period of time, say 12 Months, say three months?

A. Oh, Lord.

Q. Whatever is easiest for you, say daily, I don't know.

A. It's hard to -- like I told you earlier when I said I get calls on vacation and when I'm at home. I have an hour and 15-minute commute here every day back and forth. It's hard to explain, but I go through Arlington, Grand Prairie and I do a lot of -- I take a lot of calls on the drive home and people will know they're like, hey, are you driving? And I'm like, yeah. And I'll talk to them then. So I get a lot of calls about whether we want to get this airplane. Like there is a jet they are looking --

that CAF is looking to buy. How do I manage the Board? It's not all complaint. These are not complaints all the time, but it's sometimes people call, and they'll just want to vent and whine, and I get paid to do that too. I'll listen and I always say at the end, what do you want me to do? What are you asking me to do? Why are you telling me this?

So, I could get a job as a marriage counselor after I leave here, I'm pretty sure but it's -- I get to deal with -- there's a lot of personality problems. I have to manage some high expectations, egotistical self-centered type people that -- and a lot of them, it's kind of funny because Bob and I -- there's only a couple of us are even ex-military.

And a lot of these people are flying these World War II and they talk about how they're fighter pilots and they're doing all this stuff and I'm like they were chiropractors and dentists and that's how they made all their money to be able to do what they're doing now. But they're living this dream when I'm like, you know, it's kind of funny to watch because some of them are like, you would know because you didn't fly in World War II. And I'm like, you don't even know, you know, it's crazy.

But they have in their mind that they -- I have to fulfill their dream that not only are they flying World War II airplanes, but they're flying them in World War II, right? It's impossible. That's a joke, but I tell people that all the time. You get -- it's a privilege to be able to fly these airplanes, and I think

sometimes people lose the sight of that. But like I said, managing some giant expectations I have no problem with that, and people know that I -- I'll do something even if it's wrong I'll take action and I don't just go, you know, let's let this smolder and see what happens a month from now. I'm not that person. Sometimes it gets me in trouble, right? Because I -- I'm like I said, you invite the vampire into your house, he's here to say

Q. So, again, back to question just real quick. Can you give me a ballpark on safety calls, safety complaints, concerns, whatever? I know it sounds like you're a Jack of all trades, but just --

A. So, I got a call last night.

Q. Okay.

A. I mean this happens. I get these all day long and like I said -- this I got a call from a pilot that was test-flying an airplane that hadn't flown in two years and he didn't have a high confidence factor that the guys doing the maintenance on the airplane and installing the engines because some of the guys had a big fight in that unit and some of them left. They quit and that left these guys with the brand new engine to hang on a TBM Avenger which is a pretty complex airplane. And these guys are all 75 or older. The lead mechanic is 84. And they're working on putting this -- they've been working since February to get this airplane on.

Bob and I and Matt Jackson went out there because the pilots were like, man, we're not really confident in the quality of what

they're doing, you know. They're doing -- they're good people and they're awesome volunteers and, you know, they're -- so we went out there. And the reason why I got the call last night was we went out there and said -- and Matt test ran the airplane, checked their installation because I have the pilots -- if the pilots aren't -- don't have confidence, then they're not -- they're going to have an airplane that's ready to fly nobody to fly it, right. And these -- this is a unit in Colorado in Grand Junction.

So the pilots that are flying it are all like I don't know, we don't have any confidence in the people working on the airplane. Well, that's a valid concern. He went down and flew the airplane after we went and looked at it -- we all went and looked at it, talked to the unit, you know. I talked to them about their survivability, if you will, how they're going to, what's their business plan, how are they going to, you know, keep this unit going because a lot of times it's getting dark and then somebody's going to turn the lights off and there is only a couple of people left standing. The pilot that went and flew it came back and they found they made a mistake. He took the plane up in the air for 15 minutes and the oil temperature was high -- higher than it's supposed to be. So he said, you know what, I just came back -- and he landed.

It turns out they had the sensor hooked to the wrong side. It was whether the oil is going in or coming out, you know what I mean when it's coming out, it's the coolest out of the cooler, but

going in it's the hottest. They had it rigged backward. And Matt, I'm on the phone with him last night too, and he was the one that figured it out. And he said, man, you guys got the gauge line hooked up incorrectly -- change it. That would explain why your oil pressure stayed high. It didn't drop. So, the temperature was not the right reading. It was not where it was supposed to be read from the engine.

So the pilot called me back, right? This is -- now we're at like 9:00 last night. And he goes, well, the fact that they hooked the line-up wrong doesn't give me high confidence. You know what I mean? And I'm not going to say, well, Barry -- I shouldn't use his name probably, you know what -- he was doing me a favor by going out there and test-flying the airplane and I knew that he was one of their lead pilots in that unit and if he was on board with it and saw that the quality of work that was done was appropriate, he would test fly the airplane that would bring everybody else back in.

This isn't -- this is kind of not part of my -- it's part of my job in the fact that I want these units to survive, but I'm trying to facilitate. That's probably the best thing that I can say. I'm trying to make things happen and with volunteers it is challenging. Last night he sent me a text. He goes, the fact that -- he was not happy after that flight and I think he had already resolved himself saying, you know, I don't want to fly that airplane anymore. So he said, I don't have a high confidence

factor in those guys, and I said, well, I'm going to put my maintenance director on it, he's going to call them in the morning. And I said don't fly the airplane anymore period. It's like if you don't feel comfortable, I don't feel comfortable, you know. And then he was like, well, I'm not saying I won't ever fly any -- I go, no. I go, I will always err to the conservative side.

On the lines of facilitator too, I should bring this up is that one of the things we've done in the last six years Bob's been instrumental in this too, is we put together, like I told you, the wealth and experience is out there in the CAF and all of these units. It's, but it's not -- it's not brought to one location. So, how do you do that?

So, we have -- if we do have a thing like with the our B-25s -- we have six of them. We brought the B-25 maintainers together six years ago when we did it again last year to where one person is doing their annual inspection and all the other people from all the other B-25s and have always poked fun at everybody else's B-25 gets to all come to one location.

The first year I did it was, I thought this is going to fail because these are the mechanics. They don't fly to airshows or run into their pilot buddies that are flying with another unit occasionally. These guys don't get off property mostly, you know, they just stay and work on the airplanes. When I brought them all together there were things they found out about their own airplane

because one airplane gets to host it, right? That's the one that's out and open for inspection and everybody gets to climb all over it and point out all of the things they are doing wrong.

But they all walked away and said, man, there's things we're doing wrong back at our place. That to me was a -- kind of a watershed moment to kind of say, look, you guys need to work together. These aren't little islands out there -- these units -- we need to kind of pull resources. Because chances are somebody has that spare tire or that spare part you're looking for, but if you're not talking to them you need to be able to reach out. Now they do it on their own without going through me, which is kind of cool because that's what I wanted. I don't need to be the consummate facilitator for everything. But if there's something that I can bring together on this, I will and that's -- we've done that with maintenance. We've done it with operations too. Instead of having everybody doing their own ground training, like I said they do from January to March. If you're going to fly an airplane, have -- do it all at one location, host it, you know. You be the host next year. And I always tell them when I leave, I go, who's going to do this next year? And they don't have to, you know, they could say nobody and we're not, you know, they're volunteers, you know.

But and I have to be careful too because the maintainers I had to pay for them to fly all the way up to -- I did this little -- well the first one was in Minnesota and it was January and I

made all these guys -- I paid for their flights and I paid for their hotel and everything because I can't force them to go somewhere and then say hope you got enough money to cover the trip.

Now the pilots I don't usually do that with because they have privileges, and they can usually move around. And they want to get the training and I want to get them the best training they can get at each ground school. And I've never had anybody come back and said, man, we went to their ground school, and it really stunk. It's like they always learn something new. Sometimes they don't always admit it, but I think it's important to pull everything together and that's why I always tell our guys that we're all facilitators, man, make something happen. And if there's a problem, then work together and fix it.

Q. Okay. As I said, I'm going to jump around here a little bit. Do you guys have a -- I know you guys aren't 135 or 121, so you don't have a principals or OPS inspector, but do you have an FAA point of contact that is your point of contact at the FAA that you reach out to for all things?

A. Yes, Baker Nase. He was just here on Monday. He did -- he'll call before he comes out. He's our PMI, but he's our overall for the CAF right now. And he's been doing it for a while now. He'll call in advance and say, hey, are you, you know, I want to look at an airplane, whatever. And even though the headquarters isn't really -- our job isn't to have airplanes, we

want to get them out to the units. But if there's an airplane here, we'll have -- we'll say, come on out and he does a, you know, he'll look through the log books and go through AD's and all that kind of stuff.

And he was here Monday, and I think he spent like 20 minutes. He came in and we had everything ready for him, you know. And sometimes he has said, I want to look at three airplanes. That's fine too. But, yeah, we're always out in the open and I talked to him. He works for our LOA. That's the -- to add an airplane to that authorization -- that's Baker. He's at the North Texas business. So, he's approachable.

Like if we get something that happens, like, say, a B-17 has a reportable accident -- incident like, you know, we had a brake failure or something like that. They'll call me and I will report to him since that's our jurisdictional FSDO. And I'll send him an e-mail, say, by the way, B-17 landed at such, and such airport and they had hot breaks or whatever and blah blah blah. I'll let you know and then I have the unit send me a 603, right? Anytime there's any incident -- an engine shut down or whatever I have them send them -- that's our form 6 -- CF6O3 that reports everything winds, temperature, who the crew members are, all of that kind of stuff. It comes to me and then I will say, hey, Baker, I'll send you this accessory when I get it.

I got one just the other day from a Stearman that landed where the engine quit. And these guys are flying from -- they're

at 3,000 feet from one airfield to the other and there was an airfield underneath them so they -- engine -- it was kind of semi running but it quit by the time they landed, and they landed on the runway uneventfully.

And they called me and the San Antonio FSDO call me because all of the airplanes are registered to the American Airports Fly Museum, that's me, right? I'm the guy that does all of the registrations and the renewals and all that stuff. So they don't know who to call so they call me. And then I'm like, hang on, I'll -- and it was funny, it was two weeks after this happened, and it wasn't a 1602 airplane, so it wasn't reportable to North Texas. But what I did was I had the unit send me a 603 with everything that happened that day to capture it right then because that's the best time you're going to remember anything and then and let me know what you going to do for follow-up. It turns out the crankshaft failed on this airplane.

They had another engine lined up, blah blah blah. Two weeks goes by and the San Antonio FSDO calls me, and he goes hey, I know you probably don't know this. I know you got a lot of airplanes under your control, he goes, but there was a Stearman, and I said, yeah, I know exactly the one. And he goes, well, can you -- you probably don't have any information on it -- the -- what actually happened, but can you give me a POC or a contact information that can like who's the pilot in command? Well, I told him. I said well, I'll do better than that. I pulled up the 603, which has

the pilot and the other pilot who was getting instructions, his cell phone number is on there because we require him to put it on.

Everything that detailed this, and I said, look, I'm going to send this to you and the guy goes, do you know when that plane was flying? I went on Rally Point, and I go well, it took off on this day and it landed this day. It's, you know, I can tell you exactly who was flying it and they matched the 603 because the pilot did the right thing and put their information. And now granted if this was the day of the flight, it may not be that real time, but because they had already put it in, I basically went back and said, you know what? And the guy goes, I can't believe you have all that information available. I go, well, normally I wouldn't, but I have Rally Point and I was able to get a lot of it. Plus, I want you to have the pilot's information because there's no need for him to call me and then I relay what's going on. Get it straight from the horse's mouth.

So, we did that and then he called me back a week later and said, hey, what's the follow-up with that? And then I called the people on the ground putting the engine on the airplane because they had to take the other engine off and find out what happened. They didn't do a post-mortem on it yet and I didn't know the crankshaft failed. They didn't know. But the air repair got a hold of it, took it apart and that was their finding. So, I closed the loop with the FAA. I do this all the time with all the different fidos they'll call me about something. They kind of got

me on speed dial, I guess.

Q. So, your FAA point of contact -- Baker Nase.

A. Baker Nase.

Q. Nase or Mace?

A. Nase, yeah November.

Q. Think last year -- don't think about this past Monday -- think last year. How often did he come here? Or how often did you guys interact?

A. So he came out for the 602 audit once and then he came out to inspect airplanes. I would say he was out here twice.

Q. Okay.

A. You got to remember; you were exactly right. We look like a giant large 135 operation and a lot of our rules and regulations play up to that level. But as a 91 operator, the oversights right here that we don't get a lot of oversight. So, we have to provide that. So I welcome anytime somebody says, hey, we're coming out. I don't go, oh no, FAA in the house. I go, yeah, come on out or go visit a unit, you know. That's what I look -- but I realize we don't garner a lot of oversight based on the fact that we're a 91 operator.

But we -- if someday -- I'm -- I shouldn't say this on the record, if someday. We ever moved into 135 where we have to officially be a 135 operation, the maintenance will be very challenging, but when it comes to the operation side, we're practically there.

Q. Okay. Have you ever flown in an airshow? Or, let me rephrase that, do you fly in an airshow?
A. I don't, and I -- I've flown a few of the CAF airplanes and I used to belong to one of the units, but I found early on that my predecessor, who the guy -- my mentor who taught me, never flew with any of the units. And I didn't understand why because I'm like, you know, my God, I got the -- I got, you know, a treasure trove of airplanes at my disposal that I can walk up to any time. But if I ever I go to a unit and I say, hey, I know you guys are fine today, but let me hop in and get out of the seat. It would be an abuse of my authority and I'm taking away for something from the volunteers that are there to do it. I'd rather -- I'd go ride with them, you know what I mean, or observe. Well, I used to fly a couple of the planes and then I just I bought my own airplane because I was -- I felt more comfortable -- it was a World War II airplane -- flying that because I didn't have to be -- I found that I was kind of beholding to one of the units because the units would call me -- I'm not going to say which one because I was flying the -- the B-24 was the last airplane I flew for this outfit. And it was like they were saying, hey man, you know you can't -- I can't wear two hats. I can't be the guy hanging out, drinking beers with the folks in the unit, and then all of a sudden turnaround and be the hammer that's got to, you know, control everything. I'm not saying that I got to control everything. But I mean it's -- it was a conflict of interest. Let

me just put it that way. And I just, I didn't feel that comfortable. I still have my own airplane, but it's not a CAF airplane. But it's like, I just felt that it's more important and I think the optics are important, that I'm not the guy that just blows into town in some cool CAF airplane and they're going, who is paying for that gas and who's, you know.

I usually drive in my car, and I show up and I had a '99 4 Runner until just a couple months ago, and they finally give up the ghost on me. But I try to keep a low profile that way. I've gotten to do a lot of neat stuff in my life, and I don't -- I don't want to take anything away from anybody that's doing it or pull somebody out of the seat or jump in front of somebody to try and say, you know what, I'm here to -- it looks self-serving. I don't know that's just me.

Q. Understandable. I know Sabrina talked to you about Airbosses and everything, and you'd said something again -- never let me put words in your mouth. You said something like, you can't control the Airboss, but you can control who CAF allows to fly in that airshow.

A. When I say -- when I -- let me clarify --

Q. Please.

A. -- when I can't control the Airboss is when I'm not co-located with him and he's on, even if I'm standing next to the guy and it's really loud and he's on a headset and a mic, I can't go override -- disregard. So I don't have any immediate control, but

what I can do is I can come in the next morning at the next pilot briefing and say hold the phone guys. This was -- we had a close call with a P-63. It nearly hit that B-17. Can I do that? Oh, absolutely. And the next day he's going to ask me if I have anything to add.

So, do I have some control over it? Yeah, I'm not going to say, you're fired, don't Airboss today. You know, we're going to cancel the show. I wouldn't do that. But I do have the ability and like I said, he asks me, which I think is important. It didn't used to be that way. You know in Airboss would we get up and do a presentation that was like God talking to you. You didn't ask questions. You just sat there on your hands, and you didn't -- and if your cell phone went off, you had to sit in a little chair in the corner. I mean it was crazy.

They've come a long way from that, but it's -- they're still -- there is processes to improve on that end too, I think. And I -- and that's why I went to these guys. I'm like, you guys are flying 787 Dreamliners for American Airlines, it's like, you can't ask a question -- you're afraid? It's like that's impossible, you know? I mean, don't be afraid. And that was the guide to empower them to say, look, I don't feel comfortable. I decided I'm not going to fly today. Or better yet, you tell me to do something I don't understand I'm just going to go to the holding pattern that you assigned. And we'll talk about it later. Knock it off, you know, that's -- we don't see that happen a lot.

As a matter of fact, I don't think I've ever heard a knock it off call in an airshow until November 12th on the tape anyway. You heard that -- you guys heard the tape.

Q. So let's just say for a moment.

MR. LASCHE: You, have you Bob? You ever heard knock it off in an airshow? Okay.

BY MR. ETCHER:

Q. So just for a moment, let's say that your B-17 crew. They're like, you know we heard about the story in Houston. Yeah, a different Airboss here, but I just don't feel comfortable with it. I'm not flying.

A. Yes.

Q. How does that look to CAF? And forgive me, I don't mean to be blunt.

A. No.

Q. But you're losing potential revenue, you're losing --

A. Oh, I know the pressure.

Q. -- I don't know what else, but does that -- is that upsetting? Is that problematic? Kind of help me understand, you know.

A. Sure, we -- there is very little room for flexibility on that and I tell people when I go to a unit, anybody can call a safety stand down. It doesn't have to be -- you could not be even be flying. A safety stand down means you guys -- we need to look into something. We need a timeout, I guess is the best way to put

it. And I did this with -- Matt Jackson is our new director of maintenance, and he found an issue with an airplane. And he goes, man, I think you know this airplane needs -- it needs somebody to put another set of eyes on it. There's not an IA looking at the A&P's work. He goes, what should I do? And I go ground the airplane which you can do with a stroke of a key in Rally Point.

And he was like, well, isn't that going to piss everybody off in the unit. And I go, have you tried to call them first? For three days he couldn't get anybody to return a phone call. Volunteers once again. So guess what? He grounds the airplane, and his phone rang off the hook for the next hour. And I said that's why you have to -- you have to do that as an attention getter. Anybody can knock it off or have a safety stand down. Now I've actually -- we've had stand-downs in the CAF where if something happens, we don't fly.

In the case of the accident we didn't have -- we had to renew our insurance policy, so it took a few days to get all of the airplanes back. But we have done safety stand downs where if something happens it's like, you know what, stop. We need to figure out what happened here. Maybe I don't even know. Maybe I don't have the information yet. It's -- we can do that. So it -- to call safety stand down at the unit level, any pilot does, when I talk about CRM, you know I use ORM with that too because if you're just flying by yourself that day in a Stearman, you know

you don't, you have to do your own personal risk assessment on that flight for that day based on the way you are how you feel. Right? How much sleep did you get? How many sticks did you poke in your eye? You know what I mean? That's every -- that's up to every individual to make that call before any flight and anybody walks away the unit may go, man, we planned on -- this is -- I mean, I've heard it all. I mean, that guy's son was a World War II veteran, and you know, he was a triple Ace and you're telling me he can't get a ride in a B-17 right now? Yeah, the answer is yes, he can't get a ride in a B-17 right now.

So no, there's no room for flexibility on that. I'm resolute.

Q. So you bring up the term risk assessment and you know pilots have to assess themselves, right? Do -- does CAF -- did CAF do a risk assessment for Wings Over Dallas or is that something you guys ever do for an airshow?

A. So we do it -- we always do a tabletop after the show, right? And this is to cover everything, right? What didn't work? What went wrong? What needs to change? And it's best to do that right afterward. It used to take -- you have to wait for the bleachers to clear out and everything to go away because it's still busy trying to close down the airshow. But after that we have all of the principal players come back and you're gonna ask me if the Airboss is there? He is not. So, it's more like what did we do wrong? What happened with the -- how come we didn't have enough

toilets?

Whatever, I mean, you have to cover a lot of ground and it could be, you know what, so and so -- like I'm just making this up -- so and so was flying too low in their pass over the bomb run and you know, I'll have a talk to him about that or we're not going to invite them back next year. That could happen but I'm just -- I'm making that as a hypothetical. We cover the show itself, but we also cover the event -- everything from what could go better or what went wrong or who didn't show. And, you know, what -- even the public gets a vote, right? They always go, man, that show doesn't -- wasn't as good as last year or whatever, you know. I mean that's fine. We take all that into consideration.

Q. But that's all post-accident.

A. Post-accident.

Q. Post airshow.

A. Post airshow.

Q. What about pre-airshow? Do you guys look at it and go, let me -- let's do a risk assessment of --

A. Oh, absolutely.

Q. -- here’s is what we are trying to do in the airshow. He is the aerial maneuvers, here is the airshow itself. Do you guys assess that? And did you assess that and how did you do it?

A. So that's part of that -- when I talked about the tabletop exercise that we do with everybody because I have to assess everything. If the first responders go, we only got one fire

truck and the other one is down for maintenance, that's a problem, you know. I mean, I didn't know in advance. So we assess the support for the airshow. We don't -- I don't go in and do an assessment on walking around all the crew members and going, hey, man, did you get enough to eat? Are you drinking enough water? I mean, I know it's important. We always tell people that, and even the Airboss will say don't forget to hydrate. But I don't go around and say, how do you personally feel and don't -- and I'll pull you away so that you don't feel like you're hurting your crew member or something like that.

We don't do -- we don't -- I rely on each pilot to do that for the event itself. If I come in and I find out that there's something external, I would have no problem, I mean, it would be ugly, but I could just say we're not having a show today or something like that, you know. And you could -- we could do that like, just like the weather. Hey, is the weather good or bad? I don't know. Let's wait an hour. Well after a while you go, you know what King's X this thing. This is not -- it may get better, but by the time it gets better, you're gonna have to change everything because you only have half a day now, and it's not worth it. So yeah, I don't feel unempowered to be able to do that, but we don't sit down and say like at the meeting beforehand we do scenarios. But we don't say like, hey, the B-17 is coming out and the pilot has so many hours and you know what I mean, for each airplane. I can't do that. I rely on the OPS officers and

the maintenance officers at the unit to take care of all that. And even when Clint was here, he's like I need the records for the B-17 and the P-63.

I had to call to the unit to get those. They're not all here on property. They're with the unit and of course, they shipped them all up in banker's boxes and they got to go through that way and that's the way it's supposed to be. And they carry some documentation in airplane, but not everything, you know. I don't want them to.

Q. I have two more questions or two more sets anyway, and then you're all done with me. So then you'll be able to breathe a sigh of relief.

A. Do I look like I'm not relieved?

Q. You're not yet. You might be. How far and I think you have already answered this maybe in more roundabout way, but you know I like more pointed ways, I guess. How far in advance does an Airboss provide you, CAF, or you -- a pilot performing an airshow the choreography of the air show?

A. The morning of the briefing.

Q. And that's the first time the pilot is going to see, okay, I'm going to be flying at this time, and here's what I'm doing.

A. Exactly. I can't tell you how many times it's been like, hey, we need a printer and we -- they print out copies and it goes out to the marshallers too and they need to know when the planes are moving, you know. The tug teams need to know what's going on.

But I mean, usually, it's the morning of the show and it's -- you're passing them out right before they do the roll call. And a lot of times it's been where you got to come in and say, hey, I need a printer and I need to print out, you know 100 of these things and it happens in the morning of the show.

Q. But now and I just --

A. I've never seen it not happen that way.

Q. -- in my -- and maybe I just need to separate a little bit here. The morning of the show there -- you are talking start times, taxi times, and all of that, but what about the actual air show maneuvers like, okay, B-17s, you're going to come across the runway and we're going to have the P-51s come off your right, left, whatever. Is that in advance or is that all the morning of the airshow?

A. That's the morning of the year show.

Q. Okay.

A. And I can tell you that it's -- and I'm not trying to speak on behalf of Airbosses out there, but it's customary for the airplanes that are faster and move to be on the out -- outer edge, right? So, what was briefed in the airshow, and like I said, there were really not a lot of hard lines in there. It really was done -- a lot of it was a kind of an audible right? Normally the fighters have been on the 1000-foot line and the bombers are being down, going down the runway close to the 500-foot line so the crowd can see them, right? And the fighters kind of move in along

to over the top of them. So you have altitude separation. So from a crowd perspective, you see the fighters like they're providing top cover for a bomb run or whatever, and they got pyro going off too, which is, you know, it's a little frenetic, but it's supposed to be easy.

I thought it was quite interesting when you look at some of the interviews, some of the pilot bomber pilots thought they were on the line they were supposed to be on, which is the 500-foot line. They were on 1000-foot line, which is where they were directed to go, and the fighters were directed to cross in front of the bombers and get on the outside edge of the runway, which is the 500-foot line. That was not planned. That was an audible. I'm just going to come right out and say it. The bomber that was flying -- initially we interviewed the crew from the second bomber, and they were like, we're on the 500-foot line. That's where they thought they were, but they weren't they were on the 1000-foot line because they were following the B-17. The B-17 knew where it was supposed to be, and it was right where it was supposed to be on the 1000-foot line where he was directed to go.

And that's the difference. If the bombers have been, if somebody, if we had had it, like I said, there were no hard altitudes assigned. But it's like you'll see and listen to the tapes you'll see, get down to 500 feet or 400 feet or whatever it says. That was why we wanted the lateral and vertical separation that I would expect because then like I said, it doesn't matter if

you're doing 60 knots faster than the other airplane or 60 knots slower. It doesn't really matter if you're on a different track. That was what we were trying to achieve. I think you know Russell over time, he could have probably -- he almost made it.

I mean if that P-63 had made it right in front. But what was interesting was the 2nd airplane, the guy, Doug Rosendahl was flying the 2nd P-51, and his comment was quite telling when he said how close were you to the B-17? And he said, well, I passed the B-17 by 300 feet, I think, he said. And I was comfortable with it. Well, where do you think that 4th airplane was already on a collision course back then, but it's he's not leading the three ship, right? It's just -- I was comfortable with it.

Well, the same thing that happened at Houston, where we had people that weren't comfortable with what happened because they were -- planes were being directed to dynamic maneuver in and around big airplanes, and it made the big airplane guys going, wait a minute, this is close, or these angles are acute. You know, I don't -- I'm not comfortable with it. If that makes any sense, but at the end of the day when you look at it, the planes were where they're supposed to be and everybody goes, oh, Craig was an aggressive pilot. He was known for being -- aggressive doesn't mean he was unsafe. He was a very experienced airshow pilot, and he was going right to where he was supposed to be. Now he made a roll -- he may have come out on the 500-foot line and said, oh, those guys are a little left and fell in behind him.

But he was going for the -- what place he was directed to go to. Albeit his primary concern is the planes he's following, right? Because he's -- he has to do that as well. But he was in the turn in the down line. And people say, oh, we saw the B-24, the second airplane, and thought he was well ahead of that. I doubt he even saw the second airplane. He was, you know. Maybe he did, maybe he didn't. We'll never know. But it's unfortunate.

Q. My last question and --

A. I thought that was your last question. No, I'm just kidding.

Q. I said sets of questions. This is my last set of questions. How is that? On the B-17, how many crew members are required on it?

A. So, here was one extra crew member because usually, only one scanner is in the back. So you got two pilots, a flight engineer, and a scanner -- a guy for the back. We had two scanners because you had two -- you have two doors to look out of. And I always tell people they can go with the minimum crew member for an airplane. It's up to the pilot in command, but if he deems he needs more, he can go ahead and increase that number. In this case, for the airshow, it's kind of important because as you -- as I was telling, the airplanes are going left and right. They rely on those two guys looking out of one -- they don't go -- you don't run from one side of the plane and they going to run to the other side of the plane. They're basically looking out of both sides, and it's also twofold. They are looking at the engines as well.

So, a lot of times if you're doing a maintenance test flight on a B-25, you may put two people in the back so that you can watch one and you can watch one engine, you know I mean, instead of being it -- it's not just to pile people on the airplane. Bob actually flew with Buddy on the B-17, but that was an observation flight. You know, Bob, he didn't just decide to jump on the airplane. He knew it and he was on the manifest, and we did all the paperwork for that.

Q. So the 5th crew member on the day of the event was just an additional scanner?

A. Yes.

Q. Was that requested then by the pilot or was that just -- maybe I should ask --

A. He didn't run it by me, like, hey, I want to put another scanner on board. I mean I -- that's up to the aircraft commander to determine and you know, he could have said at the last minute, hey, so and so is sick, he ate a bad corn dog. Okay, we're going with one. You know what I mean? Same thing, but I think in a dynamic environment where the planes are going left and right, it's important to have people in the back looking out. The two pilots are fully engaged, and the flight engineer is standing up in between them, you know, watching the engine instruments and stuff like that.

MR. ETCHER: Okay. That was my last set. So, I appreciate it again. Now my brain has just got to mull all of this over. So

thank you so much.

DR. WOODS: Okay. And actually. Hand back off. Bob, do you have any additional questions?

MR. HEATH: Just one.

BY MR. HEATH:

Q. Does the CAF issue credentials that qualify performance to play in your shows?

A. A senior pilot rating.

Q. Is it required to fly in an airshow?

A. Yes.

Q. By whom? Who is it required by?

A. By 60-1. Us.

Q. Okay. But the airshow doesn't require it.

A. Correct.

Q. So, it's not required to fly in the air show other than you say you want it, but the airshow -- do you -- who does -- who in the airshow -- morning at the briefing who knows that a guy has a senior pilot credential?

A. They -- if they don't have a senior pilot credential, then they have to call me.

Q. Well, who in the airshow briefing knows?

A. Could somebody walk in as any pilot walks in and say just hop in and fly the -- fly their show is that what you're asking me about?

Q. Who does -- who provides -- does anybody provide that

information that he has a senior pilot rating to the airshow?
A. No.
Q. The FAA?
A. No.
Q. So it's not required to fly at an airshow by the airshow --
A. It's a required per our regulation in the CAF.
Q. Listen to what I'm asking. Is it required by the airshow to have a senior pilot rating by the airshow, the Airboss, and the FAA?
A. No -- so, not -- no.
Q. Oaky.
A. But I don't really know where you are going with that but go ahead.
Q. It doesn't matter. Just -- I just wanted to. So we don’t --
A. And I get to ask questions later too, right?
Q. It's not -- it wasn't a trick question, but what is a TRARON?
A. TRARON is a signatory for formation flying for the CAF. That's our formation.
Q. Okay. So, it is possible we could have a TRARON card that they would provide.
A. Possible.
Q. But okay.
A. Or NADA.
MR. HEATH: Okay. That's all I had.

DR. WOODS: Any alibis? No?

MR. LASCHE: So, just to clarify what Bob said, if somebody were to, let's put it this way, if somebody's flying in an airshow and they make a mistake or they're doing something because they are out of position or the Airboss says land immediately and I find out that they never flew, as if they don't have a senior pilot endorsement, they never flew in the airshow. Then that person is going to -- they will be hearing from me. But can somebody jump in an airplane and hop up? Well, I can tell you this two people did with riders on board and that wasn't part of the plan. So can anything happen at an airshow? Yeah, absolutely. But no, it's not that closely controlled. I wish I could say that it was, but it's not.

BY DR. WOODS:

Q. So my last two questions again, thank you for your time. This has been very educational. I can probably say for both Shawn and I. And so we appreciate the time that you put forth today. My last two questions are what I call the wild card questions. So the first one is that I mean you obviously had some time to know that we wanted to come, and we wanted to chat with you.

A. Sure.

Q. We want to learn more. Was there anything that you thought for sure, like, oh, the NTSB's coming? They're going to ask XYZ and that we haven't.

A. So of course -- and Jim mentioned this to me when he was

still on -- that the human factors when you joined the team, he said, I'm relatively new. I might have not done a good enough job exploring human factors. He told me that and I thought and then he goes and that -- and I thought, well, that makes total sense.

You know, it's kind of like he's he said he was only doing this for like, a year, and I -- I'm sure it takes a lot longer than to get a handle on how to do all of this, but he was do -- he did an awesome job. I will have to say I was thoroughly impressed. He was a consummate professional, there's no doubt about it. But he just said, man, I, you know, he was new and if he didn't say he was new, I probably wouldn't know it.

However, when he said he was bringing a human factors person, I was like that's fine. And then you were going to come down in July. That was our plan initially. That didn't concern me at all because I'm a fan of human factors. Like I said from my Air Force days to everything that's important about finding out what happened here and how we can avoid it in the future, human factors plays a huge role in that.

I was more concerned about you, Shawn, coming down because you're -- you got you have to start all over again and we're six months past this accident and now we're going back to, you know, I remember the day and it's like and it's not that it's a problem for us, but it's like I just -- that was an added twist that I didn't see coming. I didn't see Jim saying, hey, I can't commute telecommute from Hawaii. But I appreciate your position in coming

in, but like some of the questions you asked me on the phone, I was like, oh my God.

I wouldn't want to be like, oh my God, we got to start all over again here. That was my initial -- that was the only concern that I had. It wasn't about human factors, it was about, you know, what are we going to do? And even when I call the people. I said, hey, man, you got to come back in front of it. What do you mean? You know what you know, and that that was -- that's okay, but I think it was -- I'm more -- I was more concerned about making sure that you got all the OPS piece that you need than the human factors.

I was always on board with that, and I told people I go, man, human factors is -- if you can tell -- you can't tell me human factors didn't play in anything that had to do with this accident. It's impossible, especially when it comes to the Houston dynamic that I've told you about. But when it comes to the whole investigation and I know you guys, you still have the maintenance side, and Jason, you know I mean everybody's there, there's continuity. But I felt, I felt kind of bad for you and the fact that I just know I kind of empathize with the fact that you gotta head into bankers' box and said, hey, you know this is yours now and you're like, oh my God, I got two other investigations I'm working on, and now I need to do this.

And it's like you had to pick it up and I can empathize with that. But I also wanted to make sure we got everything out front,

you know, with you guys, I spent nine days with Jim. So, but they're almost nine days or whatever with the team. So and then I met with them at ICAS and did the interviews together, Bob and I were both with them and you know, I just wanted to make sure that you got everything you need. Or if there's any questions you have, it may not be me that answers it maybe somebody else that you talk to.

MR. ETCHER: I just want to go on record. I appreciate you guys taking this time because you have educated me a lot. Sorry again. It's seven months, eight months down the road. But you have educated me a lot and you filled in a lot of big holes I had in my brain. So they start to fill in a little bit, so I get a better picture, and that wouldn't have happened without your taking the time today to educate so thanks.

MR. LASCHE: Yeah, absolutely.

DR. WOODS: And our goal isn't to reconstitute everything that could tedious, and we understand that. But it is to have a sure footing and I can guarantee that even if Jim were still here working this case there would likely be follow-up questions, maybe not in person necessarily because as we learn more, we better formulate our questions and know better what to ask or we need to follow up on stuff. So that's still part of the process. So even if somebody talked to us once, yeah, it's highly likely if something else comes up later, we would want to talk to that person again to make sure that we have a good grasp of what's

going on.

So please and we'll get to see, you know, the rest of your people tomorrow, just express to them, it's not anything that they did wrong. Their answers were perfectly fine the first time around is that you know as the investigation evolves, so do the questions. So the other wild card question I always ask is, is there anybody that we don't have SA on to talk to that you highly recommend we put on our list of people to talk to?

A. No, I will -- I will do it one over answer, I mean you have the list was longer than it should have been, probably because we added in the Houston folks that you got a record of that was probably more than normal. I didn't -- we did not bring in some of the other pilots that were -- the B-25s who were behind the hell diver in the trail.

They're not going to provide anything new, but I'd be happy -- anybody that you need, I'm happy to get them scheduled. If there's something you're like, you know, I just -- I think Gena is important. I think she -- I told you that on the phone. I think she's an integral part because she's kind of the overall for the show she contracts the Airboss, she gets, she's contracted to, I mean, she does a lot and we -- and she's a wonderful lady. I mean, but I wanted you to meet her. We interviewed her at ICAS. The two, I think it's important, the two I didn't bring in the flight engineer for the -- I didn't recommend him. The flight engineer in the B-24 was the -- just -- that's why you have both the

pilots. I think you have Matt Hood and Al Benzing coming tomorrow, right?

Q. Yeah.

A. And Gena. Is Gena coming? I haven't talked to any of these folks since I said -- okay and John Cotter. I think is another one. He was, yeah, John's good. He's a good resource. These are all -- and I think there's nobody else I would add. I'm trying to think if there's anybody that you -- anybody else from the airfield or whatever the -- is going to just give you the after the facts or they can verify that we have -- we planned we did tabletop exercises but they're going to give you what happened after but they're not going to have anything past that day. That's all I can think of.

DR. WOODS: Okay. Well, with that, for the record, are there any questions you have for us at this time?

MR. LASCHE: No, and I like the question you had before because you were asking me if there's concerns. I'm sure no, I don't mean concerns. I was just concerned with that because I want to make sure you guys get everything that you need and you know my phone line is wide open. So, if you call up -- both you guys call up and say, hey, I need clarification or I don't understand this or that. Well, I'll get it for him. We'll get somebody on the line if you need to talk to them. And that may come out of some of these other interviews. Somebody may say you really need to talk to -- but it would be surprised to me because

we kind of already. This is like a -- you already had a dress rehearsal on this stuff, so.

DR. WOODS: Understood. Well, thank you again. With that, if there's no alibis, okay. Well, that concludes this interview. Thank you very much. We are concluding at 11:28 central time.

(Whereupon, at 11:28 a.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	FATAL COLLISION AT WINGS OVER DALLAS AIRSHOW AT THE DALLAS EXECUTIVE AIRPORT IN DALLAS, TEXAS ON NOVEMBER 22, 2022 Interview of Jim Lasche
ACCIDENT NO.:	CEN23MA034
PLACE:	Dallas, Texas
DATE:	August 9, 2023

was held according to the record, and that this is the oriGenal, complete, true, and accurate transcript which has been transcribed to the best of my skill and ability.

[redacted]

Julie Brumbarger
Transcriber

On-Scene Interview: Jeff Linebaugh

Representative: None
Date/Time: November 13, 2022 / 1230L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview Jeff stated the following:

Jeff Linebaugh was the pilot of the P-51D, call sign Gunfighter 5428V. He was the lead in a flight of 3 fighters. Because of the weather, they took off on runway 31 – single ship takeoffs to a right-hand orbit. After extending up wind to ensure the wingmen could get aboard, meaning that Doug Rosendaal in the number 2 aircraft was able to join on the inside into a fingertip parade position within 180 degrees. Then Craig in the number 3 aircraft "made a pretty aggressive join up" into the outside position and remarked that Craig was a pretty aggressive pilot. Not unexpectedly noting that both mentioned that he must have reduced power quite a bit to get it stopped and parked in position like that. He got aboard just past the 180.

The plan was for them to do a right 270 and come across the top of the field and on top of the bombers. He asked the Air Boss if he was ready for them and he said he wasn't, but rather wanted him to do a left 270 to come back over the top of the airport to join over the bombers. They were a little over 1000 feet with the bombers down at 500 feet or so which gave him good situational awareness (SA) and allowed him to "park" about the middle of the bomber stream. Did one pass and then the Air Boss gave a string of instructions on the radio, but he didn't understand all of it, so he asked him to clarify. He did but couldn't remember if he specified a line for them to fly down or a line for the bombers to fly down a line. The Air Boss said that they were to use the geometry to turn inside the bombers and fly down the 1000-foot line and that the bombers were to fly down the 500-foot line. He put his wingmen in a right echelon until instructed to put them in trail.

From his perch position through the 45, he had good SA (Situational Awareness) and everything looked good as he came downhill with good geometry and picked up the 1000-foot line. He made his run and was "cleared to pull" and pitchout to the

right. Just after he pulled up, he heard the "knock it off" call from the Air Boss and knew something was wrong. And was sent to holding.

He praised both the accident pilot and the Air Boss citing their experience. He said he'd flown with the accident pilot 6 or more times over a 20-year period.

When asked what #3 in the fight should be focused on… he said maintaining position until #2 breaks, then focus on the run-in line.

He thought the lateral separation was good, but he wonders if he missed the 1000-foot line. And wondered if the bombers were thinking they were supposed to be on the 1000-foot line instead of the 500-foot line. He cited a similar NMAC (near mid-air collision) in an airshow about 10 years ago for that reason, but the fighter pulled up at the last moment.

He offered that both he and the accident pilot had flown previously that day and might now have had sufficient time to eat and suggested alternate theories, e.g. lack of Food or water, or a possible GLOC (G-Induced Loss of Consciousness). (Note: The Operations Group found no supporting evidence of this.)

Interview concluded at 1305L

On-Scene Interview: Jim Gentry

Representative: None
Date/Time: November 13, 2022 / 1345L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview Jim Gentry stated the following:

He was a volunteer with the CAF and has flown in 15-20 airshows. As the flight engineer on this flight, his job was to provide additional Situational Awareness (SA). When he wasn't looking at the gauges, his eyes were outside.

He remembered that they were in a slight bank starting their run and everything happened in 3-4 seconds. He saw the fighter just before the impact.

They were coming down, maybe 300-400 feet and the fighter was in a tight descending turn.

He stated that he didn't know which line they were supposed to be on, but they were flying down the 1000-foot line on the accident run, just like they had the previous run. "We were definitely offset left from the runway".

He did not attend the brief because he had to move airplanes. He felt there was confusion during the flight because they were following the B-17 and there were lots of changes… turns in both directions instead of just a racetrack pattern. He felt like there was just too much going on.

He estimated they were doing about 160 kts.

Interview concluded at 1422L

On-Scene Interview: Doug Rozendaal

Representative: None
Date/Time: November 14, 2022 / 1130L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview Doug Rozendaal stated the following:

Doug stated that he wanted to help get to the bottom of this. His concern in speaking was that a lot of the people involved were close friends and he didn't want to be perceived as selling friends out.

He is the former Chairman of the ICAS Safety Committee and the former Chairman of the Sandoval Committee. He has done in depth research of warbird accidents and has maintained a database of accidents dating back to the last 20 years.

He stated that he was the #2 P-51 fighter pilot and was 1,000 to 1,500’ behind the lead.

He was an Air Boss and had done both civilian and military airshows a long time ago. He had also flown fighters for over 20 years in airshows. He stated that he was a former air show promoter and has produced air shows.

He stated that previously when he first learned formation flying, he struggled wanting to maintain a tight formation as he wanted to be more aware of the big picture. Over time he learned to focus more on his lead and less on the big picture. If flying with someone he doesn’t trust, he tends to pay more attention to the big picture which may loosen up the formation.

Doug stated he absolutely trusted Jeff Linebaugh and Russell Royce and that Russell was the best in the business.

During the show Russell issued a long stream of instructions and he wasn’t really paying attention to it and was a little confused by the long directive. Russell then called for the echelon. After the break, he moved his attention from the lead to the big picture and when he broke, he took it a little wide. Jeff appeared to push the power up and Doug stated he matched 40 and 25 to stay in close.

When Russell said to get in front of the bombers, Doug said he looked and found the B-17 and thought he was good. On the downhill, Doug stated that for a moment he had thought that he wasn’t going to be able to catch the B-17 and get in front, but then later in the turn, he realized he was good and his attention then shifted to focus solely on the P-51 after that. He did not recall what line they were supposed to be on. He thinks the B-17 was on the 500’ line.

Doug stated that he thought Len [B-17 Pilot] was conservative and probably cheated over a bit.

Doug also stated that the P63 was a little underpowered compared to the P51s, so he was maybe a little behind. Doug also mentioned that Craig was normally aggressive so he should be ok. Doug speculated that maybe Craig got confused or maybe Craig thought the bombers were on the 500’ line. His big question was why Craig wasn’t “on our tails”.

When asked about the time that he wasn't sure he was going to catch the B-17 he stated as he got closer, he saw that he had comfortable separation and was maybe 300 to 400 feet lateral separation and above the B-17.

Interview concluded at 1205L

On-Scene Interview: Taylor Stevenson

Representative: None
Date/Time: November 14, 2022 / 1038L
Location: Dallas Executive Airport
Present: Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview Taylor Stevenson stated the following:

Taylor stated is a volunteer pilot for the CAF. He owns a T-6 and flies a P-51, a P-40, and a P-63. He also flies in the "TORA" act. He is an attorney in town.

He stated it is not uncommon for them to vary at higher and lower altitudes during a show and that they normally stay 500 to 1,000' apart from the bombers.

When he is up on the perch rolling in, he stated he would make his final determination on judging separation from other aircraft while up on the perch and would consider in the last guy trailing in behind him.

Interview concluded at 1050L

On-Scene Interview: James Hulsey

Representative: None
Date/Time: November 15, 2022 / 1254L
Location: Dallas Executive Airport
Present: Matthew Rigsby (FAA), Stephen Simpson (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview James Hulsey stated the following:

He is a volunteer pilot with the CAF, and he was flying the Stearman for a passenger ride during the accident event. He was established on a 4-mile final from crossing the intersection and saw a bunch of bombers and fighters in the distance. He was crossing over the far end of the golf course and the Air Boss asked him to drop down to the deck and continue his approach. He dropped down to around 150' AGL. Just after landing he heard the knock-it-off.

James stated he was at the morning briefing and that nothing was said about non-revenue aircraft giving rides during the show. He stated he had 1 passenger on board and conducted an intersection takeoff.

When asked if there had been any discussion about passenger rides in the time leading up to the show, he stated a couple weeks prior it was unsure if rides were occurring during the show. He did not recall when it was decided if they were going to do it.

James then stated that during the briefing it was stated that during two of the acts they could not launch or recover for those acts, but he didn't remember which ones.

Interview concluded at 1310L

On-Scene Interview: Ed Vesely

Representative: None
Date/Time: November 16, 2022 / 0930L
Location: Dallas Executive Airport, phone interview
Present: Stephen Simpson (FAA), Matthew Rigsby (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview Ed Vesely stated the following:

He has been involved with CAF since 1980 and has been doing airshows since the mid-80s.

He has known Ralph (Russell's father and another airshow Air Boss) and Russell (Air Boss) for many years and saw a conflict

previously at the Wings Over Houston (WOH) show two weeks prior on Saturday and Sunday, October 29 and 30.

He was flying in the bomber stream in the SB2C (Helldiver) during that show on Sunday. He was called inbound and was belly up to the north. As he was coming in for the photo pass, the P-63 was called in and was about 100' and converging. Ed shallowed out the bank and the P-63 sidestepped.

He stated that the P-63 pilot was Craig, the same pilot that crashed in the WOD airshow. He also stated he approached Russell and Ralph as they were operating as joint Air Bosses in a sidebar to briefly discuss the incident and that the aircraft had been brought in at the same altitude. He said "Hey, you guys gotta deconflict this because it was close! We, [the helldiver] and the 63 were converging!"

Ed stated that in an airshow brief you have lateral separation and should have vertical separation too.

On Sunday, as he was making a north to south run at 200 feet on the 500-foot line, the P63 came up from below and behind and called him to "Stay straight". The P63 passed under and just slightly offset to the left.

He was unable to debrief with the Air Bosses because it was Sunday and there was no debrief.

During that show (WOH), it was a similar setup with the B-17 in the front, C-47 second and the SB2C in the third (like at WOD).

Interview concluded at 0940L.

On-Scene Interview: John Bixby

Representative: None
Date/Time: November 17, 2022 / 1201L
Location: Dallas Executive Airport - Phone interview
Present: Stephen Simpson (FAA), Matthew Rigsby (FAA), Jim Lasche (CAF), Bob Heath (CAF)
Investigator: James VanDerKamp

During the interview John Bixby stated the following:

He flew in both the Wings Over Houston (WOH) airshows and the Wings Over Dallas (WOD) airshow.

On the Saturday WOH show, John was the pilot in the C-47 in trail behind the B-17. It was a standard show, and he was at 200 feet on the show line. They did a couple of "duster turns" meaning 90/270 and that each time they flew down the show line at approximately 200'.

Normally the fighters would stay above them.

On one pass the ME-262 came head on and below them while they were at approximately 200' AGL.

On Sunday John was in the B-17 and was the bomber lead in the WOH airshow. They would usually top out at 600'.

He did not see anything crazy or unusual that day.

The Air Boss calls it out as he goes. And that was a problem when they had a comm issue, a stuck mic and he didn't hear what Ralph said.

In the Wings Over Dallas show, John was in the helldiver behind the B-24. He did not really pay much attention to what Russell said.

He never saw Craig coming in and didn't know what had happened until after the divert to Lancaster.

There was nothing out of the ordinary at the Wings Over Dallas show prior to the accident.

When asked about the Wings Over Houston show, John said he never talked to the Air Boss or the ME-262 afterwards.

Interview concluded at 1215L