

WPR24FA083

OPERATIONAL FACTORS/HUMAN PERFORMANCE

Attachment 1

CAE Personnel Interview Transcripts and Clarifying Statement

February 11, 2025

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UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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FATAL HAWKER 900XP ACCIDENT

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NEAR WESTWATER, UTAH

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ON FEBRUARY 7, 2024

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Interview of: OWEN GOLDING, JR., Hawker Instructor
CAE

CAE

Whippany, New Jersey

Thursday,

September 12, 2024

APPEARANCES:

SHAWN ETCHER, Operational Factors Investigator
National Transportation Safety Board

DR. KATHERINE WILSON, Human Performance Investigator
National Transportation Safety Board

RICHARD SHIARELLA, ESQ.
Senior Legal Counsel for CAE

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I N T E R V I E W

(4:32 p.m.)

DR. WILSON: All right. The time is 4:32 p.m. Eastern Daylight Time. We are at CAE for the investigation of the Hawker that crashed in Westwater, Utah on February 7, 2024.

I'm Katherine Wilson. I'm a human performance investigator with the NTSB. I'll have my colleague introduce himself.

MR. ETCHER: Good afternoon, Owen. I'm Shawn Etcher. I'm an operational factors investigator with the NTSB.

DR. WILSON: So, Owen, what we'd like to do today is record the interview and create a transcript of that which will eventually go into our public docket. Is that something you're okay with?

MR. GOLDING.: Yes.

DR. WILSON: Great. And you are entitled to have a representative with you. Is there someone that you would like to have sit with you during our conversation?

MR. GOLDING: Yes, Rick.

DR. WILSON: Okay. Great. And if could, Rick, introduce yourself for the record.

MR. SHIARELLA: Certainly. I'm Richard Shiarella, senior legal counsel for CAE.

DR. WILSON: Thank you. So once we conclude this, Shawn and I will review the transcript, and we'll make any corrections that we see, spelling mistakes or, you know, maybe they got an acronym

1 wrong. We don't change anything that you said. Richard will get
2 a copy of that, that he can then forward to you. And if you have
3 any clarifying statements you might want to make, we can certainly
4 accept that and attach to the transcript.

5 As I said, we'll probably have two rounds of questions. If
6 you don't understand a question that we ask you, please just ask
7 us to clarify. If you have -- if you want to take a break or
8 confer with Richard, you can also just let us know, and we can
9 stop the recording. If you don't know the answer to a question, I
10 don't know is also a perfectly fine response or if there's
11 something that you need to get back to us.

12 Before we get started, do you have any questions?

13 MR. GOLDING: No.

14 INTERVIEW OF OWEN GOLDING, JR.

15 BY DR. WILSON:

16 Q. All right. If you then could state for us your full name?

17 A. Owen Golding, Jr.

18 Q. And could you spell your last name for us please?

19 A. G-o-l-d-i-n-g.

20 Q. And your position in the company you work for?

21 A. So at CAE, I am a Hawker instructor in the simulator and
22 classroom.

23 Q. And how long have you been a Hawker instructor?

24 A. I became an instructor back in 2021.

25 Q. Are you a full-time instructor? Are you part time?

1 A. I'm a full-time instructor.

2 Q. Okay. And if you could just give me a cliff notes version of
3 your aviation background leading up until you being a -- your
4 aviation background, how you got to CAE.

5 A. So, I did piston training in both Florida and in Morristown,
6 got all my ratings, became a MEI, finished the rest of my
7 training, became also a CFI, worked for a CFI in Caldwell, New
8 Jersey, did that for multiple years. During that, I signed up to
9 be a supporting crewmember here, part time. So I did that for a
10 few years as well. I also started flying some Hawkers in real
11 life, Part 91, for this one owner, did that for a little bit to
12 build my hours up. Went to the airlines for a short time in 2019,
13 did about a year there, and that's when COVID happened. So I was
14 put on a partial furlough. So I decided to leave that. Now, in
15 2022, go back to flying the Hawker full time, did that for a year,
16 and then during that whole frame of time, I was still part time
17 here as well. I never, I never left CAE that whole time. So did
18 that, went full time at CAE as an instructor and then that's what
19 I've been doing up until recently, went part-time flying the
20 Hawker again for an operator in New Jersey, Long Island.

21 Q. Awesome. I think you alluded to some of these things. But,
22 what airman certificates and ratings do you hold?

23 A. So, ATP multiengine land, commercial single engine land and
24 prior I was both a multiengine instructor and a CFI.

25 Q. And type rating in the Hawker?

1 A. Type ratings, I have the Hawker, 800 series, the HS-125 type
2 rating, a Hawker 1000, the BAe-125 and also the Embraer 175/195.

3 Q. About how much total time do you have?

4 A. About 2800 hours.

5 Q. And how much of that is in the Hawker?

6 A. I would say between both the 800 and 1000, about 1,000 hours
7 or so.

8 Q. All PIC, SIC.

9 A. Some SIC, some PIC.

10 Q. Okay. All right. So one of the reasons why we wanted to
11 talk to you today, one because you're a Hawker instructor but we
12 also understand that you had an interaction with one of the flight
13 crew that was involved in the accident.

14 A. Um-hum.

15 Q. Have you had a chance to review the training records from the
16 training event you did with the pilot?

17 A. Yeah. I went back and just tried to see, but nothing was
18 really -- nothing really stood out to me when I reviewed the
19 records honestly.

20 Q. And the records, one I was going to refer to because I saw
21 that I believe the training was back in April of 2023.

22 A. Yeah.

23 Q. Okay. And it was sim S15 and 16 --

24 A. Yes.

25 Q. -- if I'm not mistaken. Okay. Tell me what those sessions

1 involved?

2 A. The S15, it's a cold weather sim, involves doing much of
3 what's on the ATP checkride per the line items for it, and also
4 doing things related to cold weather operations like getting
5 severe icing, how to handle that, icing causing instrument issues,
6 things like that.

7 Q. Do you practice any stalls?

8 A. Yes. That's part of the ATP, the checkride requirements.
9 So, yeah, it's on the line items for it, yes.

10 Q. And that's in S15.

11 A. Yeah, that is in the S15.

12 Q. Okay. Walk me through the scenario of what a stall scenario
13 would look like during that.

14 A. So every company's different. So, depending on what is in
15 their training guidance, either they want us to do maneuver-based
16 stalls which aren't really scenario based. They just kind of
17 happen midair, just as a full on maneuver or we do the scenario-
18 based if that's what's in their training guidance, where we
19 actually do the stalls in the operational environment where
20 they're expected to happen. So a departure stall is done on the
21 takeoff. A landing configuration stall is done on approach. A
22 clean stall is done just after a descent while clean. So I don't
23 remember if the time I had which one's needed, but he would have
24 done -- they're operationally not very different. The recoveries
25 are all the same.

1 Q. Any of these scenarios involve actually being in icing
2 conditions when you're performing them?

3 A. The stalls, no.

4 Q. No, okay. And then what does S16 cover?

5 A. S16 is all hot weather.

6 Q. Okay.

7 A. So, the S16 is doing some high altitude stuff as well,
8 mountainous terrain. So we do a GPWS escape, wind shear. That
9 also varies a little bit company to company but it's mostly the
10 same across most operators' training programs. And some might
11 have special requirements to do training in airports like Aspen or
12 something like that. And that usually also involves doing one
13 high altitude stall. So that would be the stick pusher
14 demonstration.

15 Q. How does that scenario go?

16 A. So, you bring the aircraft up to -- not it's full service
17 ceiling but I think -- I forgot the exact number, but it's most of
18 its service ceiling. You put it into a clean approach to stall.
19 That's one. You also do another one where you bring it into a
20 stall where you purposely go to the pusher and then recover.

21 Q. So they're getting the stick shaker. They keep holding that
22 same altitude --

23 A. To the pusher.

24 Q. -- until you get to the pusher?

25 A. Um-hum.

1 Q. Okay. And then what is the recovery that you would expect
2 the pilot to do when they get the pusher?

3 A. So you tilt to go with the pusher and to nose down, max
4 power, and to keep the nose down and build a significant amount of
5 speed before trying to climb out again.

6 Q. Do pilots generally perform that successfully?

7 A. That one, yeah.

8 Q. Have you seen a pilot not perform the successfully and maybe
9 get into a full stall?

10 A. I have never seen anyone get into a full stall, no.

11 Q. In the actual airplane, and flying a Hawker yourself, have
12 you performed the stall?

13 A. Not in a real aircraft, no.

14 Q. In the simulator, have you performed a full stall?

15 A. An approach to stall, yes, but not a full stall.

16 Q. Okay. Given you've got experience flying the Hawker versus
17 the sim, how do you think the sim is representative wise of flying
18 the actual aircraft?

19 A. It's okay. It's not perfect. It's similar enough. I've
20 been both back and forth a lot. So every time I get into the real
21 one, it feels a little different but it's close enough to where
22 sticking to the training makes it easy enough to fly.

23 Q. In what way do you feel that it's not quite the same?

24 A. The controls, like the forces required to move certain
25 controls are not always perfect. The control responsiveness, the

1 visuals aren't perfect but the Hawker's one of the few planes
2 where you can actually see behind you pretty far, out the third
3 window. The simulator, you can't -- it doesn't have that. So
4 just smaller things like that.

5 Q. Do you feel that the actual airplane is more responsive than
6 the sim or is the sim like more responsive?

7 A. In terms of responsiveness, I'll say the sim is a little more
8 responsive.

9 Q. So in the real -- in the actual airplane, you're having to
10 maybe put in a little bit more force --

11 A. Yeah.

12 Q. I didn't want to put words into your mouth. So.

13 A. No, that's pretty accurate.

14 Q. Okay. And you said you also do some classroom training?

15 A. Yes. What is it? Initial, recurrent.

16 Q. Both. In classroom training, do you talk about stalls?

17 A. Yes.

18 Q. What is covered?

19 A. So there's a section in class where you talk about the
20 maneuvers. So we just talk about the profile for performing the
21 approaches to stalls. So we just kind of briefly go over, you
22 know, how to enter the maneuver, how to get out of it.

23 Q. What about CRM in the simulator scenarios? Are you observing
24 that as well?

25 A. Yes.

1 Q. Okay. What are you looking for?

2 A. In general?

3 Q. Um-hum.

4 A. Just that both crews are communicating, you know, working
5 together, looking out for any errors, and then calling out those
6 errors. You know, how they brief each other on things that are
7 about to happen, what -- how they react to emergency situations
8 and abnormals, how they use the checklists.

9 Q. And in terms of a stall scenario, what would you be looking
10 for regarding CRM?

11 A. With the stall scenario, in terms of CRM, we expect the other
12 pilot to obviously call out if they see if anything is wrong, but
13 at the same time, for training and checking purposes, the person
14 performing the maneuver needs to demonstrate they can do it
15 without too much input from the other pilot. So it's a little
16 counterintuitive just in the simulator doing that. We always
17 remind them in real life to always, you know, call it out if you
18 even think you're getting into that situation in the first place.

19 Q. Um-hum. Going back to stick pusher --

20 A. Um-hum.

21 Q. -- is there a way to disable or cut out the stick pusher?

22 A. There is.

23 Q. Okay. Is that trained?

24 A. No.

25 Q. How would a pilot do that?

1 A. So -- to correct myself. So we talk about how to -- or I
2 should say the ability for the pusher to be disabled if needed, if
3 you keep getting a false pusher. We do not actually train or
4 practice that particular scenario. And so the way it's done, to
5 answer your question, is the stall identification buttons on the
6 front panel need to be pressed to disable the number channels
7 associated with. So if you press two of them, you can't get a
8 pusher.

9 Q. And is it only disabled while you press and hold? If you --

10 A. No, they -- when you press it, it will say inhibit, and it
11 will stay inhibited until you're back on the ground and reset the
12 system.

13 Q. And could you reset it though by re-pushing the buttons or
14 only once you're on the ground?

15 A. No. So you reset it -- if I remember properly, you reset it
16 with a panel behind the captain's back. So it's a stall
17 diagnostic panel you open, and then there is a reset button in
18 that box.

19 Q. Have you heard of, in your time flying the Hawker, pilots
20 doing that, disabling that? Has anybody ever disabled that?

21 A. No.

22 Q. Not a good idea.

23 A. Yeah.

24 Q. Okay. In your training, I know you said you've never
25 performed a full stall in the Hawker, but are you aware of like

1 the stall test or the stall check that's done after maintenance?

2 A. I know of it.

3 Q. Um-hum.

4 A. I've never seen it done or anything.

5 Q. Okay.

6 A. But I know of it.

7 Q. Have you seen a procedure for it?

8 A. I've read the procedure for it, but that's about it.

9 Q. Do you know, does it mention anything about the pusher?

10 A. Yes.

11 Q. Okay. Does it say anything about disabling it?

12 A. I don't think so. I would have to double check, but I cannot
13 remember off the top of my head.

14 Q. The ratings that you give for pilots in the simulator, 1
15 through 4.

16 A. Um-hum.

17 Q. What -- do you ever give out 4s?

18 A. Rarely. I mean if I see something like particularly like
19 exemplary, I might, but usually not.

20 Q. Right. Are instructors required to take any notes during
21 training? Take or keep notes I guess.

22 A. We are told that in certain cases, like if you grade someone
23 like a 1, for example, then there has to be a note applied to that
24 piece of grading to explain why it was like if things went bad.
25 And the same thing for a 4. You have to explain why was

1 everything so great. So.

2 Q. Okay. When you're practicing stalls in the sim, it always
3 pretty much a -- I guess only if you're getting all the way to the
4 pusher, right, would you get the break versus just if you're just
5 getting stick shaker and recovering, but is there ever a roll
6 involved in any of those scenarios or are they usually just a
7 pretty clean nose down?

8 A. Oh, you mean the way the simulator acts?

9 Q. Um-hum.

10 A. No, it's usually just pretty nose down.

11 Q. Um-hum. Have you heard of that in the Hawker that it can be
12 a little squirrely during a stall? Maybe the wing will break or
13 something?

14 A. I haven't really heard anything about that. Like I said, I
15 don't know anything about the real lifestyle characteristics that
16 much.

17 Q. Okay. All right. I have my notes where you had the
18 training. And you said you reviewed it but nothing stood out to
19 you?

20 A. No.

21 Q. Okay. Going back to when you got Hawker pilots coming in for
22 initial training, what do you think is like the one area that most
23 new pilots struggle with, with this aircraft?

24 A. Probably just the avionics sometimes. If they haven't flown
25 anything with a Proline 21 before, usually it takes a lot of

1 getting used to, and beyond that, just, just generally flying a
2 jet, we get a lot of newer pilots. So some -- actually I should
3 say many first jet they've ever flown. So it's typically things
4 that they struggle with just flying a jet at all, but with the
5 Hawker in particular, you have -- I would have to say it's the
6 age, the manuals and such, like a full type rating. This is a
7 retrofit. So they struggle to study things related to that
8 sometimes because it's not laid out in the best ways. There was
9 more regulation about all that but, yeah, I would say those were
10 the main things.

11 Q. Do you find that these pilots are -- there are certain areas
12 where, after the avionics but, you know, is there any particular
13 areas where maybe they're needing extra sim sessions or --

14 A. Yeah, I mean -- well, just generally in the procedures
15 especially related to just kind of getting the plane started up
16 and ready, sometimes they kind of struggle with all the different
17 tests and stuff.

18 Q. Okay.

19 A. It's not very clearly laid out. So sometimes it takes a lot
20 of extra practice to get them to be able to be proficient with
21 getting the plane all started up and ready to take off.

22 Q. How about with any of the maneuvers? Is there anything in
23 particular that people you see, new pilots, struggle with?

24 A. The maneuvers for the most part usually go fine. And by a
25 few sims in, or I should say a few times practicing every

1 particular maneuver, they usually get it fine.

2 Q. Um-hum. What do you think the purpose of demonstrating all
3 the way to pusher is?

4 A. You mean the stick pusher demonstration?

5 Q. Um-hum.

6 A. So, that one, I would assume it was implemented to just let
7 the pilot experience what it's like to actually, you know, go to
8 the pusher since all the other stalls we practice, you're not
9 supposed to do that. You're supposed to recover at the shaker.
10 So, just to know how -- what it feels like and how to react to it.

11 Q. Do you think it's beneficial?

12 A. I do.

13 Q. You do.

14 A. Yeah, because it gets -- it's moving the control for you,
15 like having the know of what that feels like to have the high
16 pressure on the controls and move it nose down for you and knowing
17 how to react to it, I think that's beneficial.

18 Q. Okay. And the stall scenarios that you run, and I guess even
19 up to the pusher, are these always in visual conditions?

20 A. No. So they're mostly IMC.

21 Q. Oh, okay.

22 A. So.

23 Q. And, the high altitude you said -- I think you said you
24 didn't recall the altitude where you typically are performing that
25 --

1 A. Yeah.

2 Q. -- (indiscernible)?

3 A. It's -- I believe it's like around 31,000 feet usually.

4 Q. The stall procedures that you're doing in IMC, are these on
5 like an approach or is this just like you're flying along in mid
6 flight? What is the scenarios where you're doing the stall?

7 A. The maneuver based stalls are all just done in the air. So
8 the training programs for that operator will list like -- so it
9 will start at -- like at least like 5,000 feet, 5,000 AGL or
10 something like that and just have them configure straight ahead
11 and then, you know, have them set the power -- depending on what
12 kind of approach to stall you're doing, and then have them have
13 the autopilot off and then stall it, and then recover. And then
14 the scenario based ones are all more specific. Again, with it
15 being, you know, a partial configuration stall, we'll do that with
16 the takeoff and climb out with the turn. The landing
17 configuration stall is on an approach in IMC.

18 Q. I think the training record, there's a CRM and then a
19 CRM/SRM.

20 A. Um-hum.

21 Q. What are you looking for different between those two?

22 A. So that kind of -- the CRM like I explained before, like I
23 said, how they're working together. The SRM stuff is just I'm
24 looking how each of them are just managing themselves in terms of
25 what their tasks are, you know, how good they are at completing

1 the tasks and handling the high load of tasks at certain times,
2 like in an emergency situation.

3 Q. Okay. Do you train pilots at all on CRM in the classroom?

4 A. Yeah, I mean so with the ground school training, it is a
5 small portion of it.

6 Q. Okay.

7 A. So, yeah, we do talk about it.

8 Q. And like an hour session or is it --

9 A. It's not, it's not very long.

10 Q. Okay.

11 A. But it is there. It's more so -- I believe it's just --
12 there's not that many slides to it either. So it's more so just
13 you get to those slides and the instructors just kind of talk to
14 them. It's a day 1 thing in ground school for both recurrent and
15 initial. So the instructors there just kind of generally talk to
16 them about the expectations for the CRM stuff going into their sim
17 training after ground school.

18 Q. Is there an expectation that pilots have received CRM
19 training before coming to CAE?

20 A. Well, especially with the initial, not always. So -- but the
21 recurrences, we are.

22 Q. I guess I'm just wondering how do you, how do you evaluate
23 pilots in CRM who haven't had CRM training?

24 A. Well, as it goes, there's -- usually they're really bad at it
25 at first. It's as simple as that. So you need to be kind of told

1 how to do it, and then they get better at it by the end of it.

2 Q. And so then is it sort of through the pre-briefing and the
3 post -- the debriefing --

4 A. Yeah, exactly.

5 Q. -- you're working with them in that regard?

6 A. Yeah. So I'm briefing -- like let's say two initials that
7 have never really flown a jet before, and they're still early in
8 their sim training. I'm going to emphasize certain things about
9 how they should respond and act and how they should be kind of
10 backing each other up on certain things. I can't expect them to
11 just know to do that otherwise. And then after the sim, I'll tell
12 them how they did on doing so.

13 Q. If you have a pilot who goes through a simulator session and
14 you rate them let's just say at a 2, they don't make 3.

15 A. Um-hum.

16 Q. Will you tell the next simulator instructor about that or do
17 you just type up your notes and then it's expected that the next
18 sim instructor will look at the previous sim notes?

19 A. So, yeah. I mean we're all told to, like when we're about to
20 train someone, we're all told to, you know, look at that person's
21 training records for multiple reasons, to see how they were
22 already doing. So, in general, if I feel that there's something
23 really nish (ph.) about it, I might talk to the next instructor
24 and say, hey, dude, this person was struggling for this exact
25 reason because the line item might not tell the whole story. So

1 in that regard, yeah, so sometimes if it's going to be a little
2 hard -- if I feel like it's going to be hard for the next
3 instructor to maybe understand, I might clarify to them.

4 Q. I've heard you and other instructors mention that, you know,
5 you're supposed to do notes if you give a 1 to -- 1 and a 4.

6 A. Um-hum.

7 Q. Some instructors said they'll leave notes for 2.

8 A. Um-hum.

9 Q. But are there any other notes that you make or is it just
10 based on the ratings, you know, like -- I don't know. Do you ever
11 leave any good feedback or any other notes that might be relevant
12 like, oh, for this scenario we did XYZ or something else that just
13 gives a little bit more context to the rating?

14 A. I mean leaving -- you mean notes to leave behind for the
15 instructor?

16 Q. Yes.

17 A. Usually not, but like I said, like if we feel like someone
18 might run into some issues because you feel like someone is
19 extremely new, you might talk to each other. Like all right, what
20 do you think this person is struggling with? Like what do they
21 need help with the most? Usually that's where our focus is, but
22 if they're doing fine, then we usually don't talk too much about
23 that part because if they're doing great, they're doing great.

24 Q. Okay. But there's nothing like, hey, this person like really
25 excelled at communication this time or, you know, I appreciate

1 that he stepped in and --

2 A. Well, yeah, if we --

3 Q. -- backed up the other guy.

4 A. If there was a previous problem they had, and then they
5 started doing it very well after, yeah, then that's something like
6 might be mentioned like down the chain of whoever is instructing
7 that person.

8 Q. And so you as an instructor, when you're reviewing the
9 records, you would see the number rating and you would also see
10 those notes?

11 A. Correct, yeah. So if I actually go look at it.

12 Q. Okay. I am going to turn it over to Shawn, and let him ask
13 some questions.

14 DR. WILSON: Shawn.

15 MR. ETCHER: Thank you, Kat.

16 BY MR. ETCHER:

17 Q. Doing all right? Need a break?

18 A. No, I'm fine.

19 Q. Need something to drink or anything?

20 A. I'm all set.

21 Q. All right. Well, if you do, just say so. We'll take breaks.
22 I appreciate everything you've given us so far. You've answered a
23 lot of my questions through Kat's questions. So I appreciate
24 that. There are a few that kind of need a little clarification
25 for me or a little better understanding for me --

1 A. Yeah.

2 Q. -- from what she asked. And then I've got some additional
3 questions. I know you said you read the procedure to do, during
4 the maintenance test flight, the stall test scenario. I know you
5 couldn't think of it off the top of your head. Why would you need
6 to? It's not a memory item. But after reading through it, is it
7 something that you would go, oh, yeah, I'll do this?

8 A. Not really.

9 Q. Why?

10 A. It's just not something I would be extremely comfortable
11 doing necessarily.

12 Q. Okay.

13 A. If I felt like I was, you know, flying a plane all the time
14 in real life, doing a like other type of in flight testing of
15 other things then, yeah, maybe, but without having already
16 experiencing it myself or going up with someone who's extremely
17 experienced in it, then I wouldn't feel comfortable doing it
18 myself.

19 Q. Okay. And I know you don't have it in front of you, but in
20 your mind, did it seem like a big, a big task to do? Did it seem
21 pretty cut and dry and straightforward? I know you didn't want to
22 do it, and I don't blame you without somebody, but just kind of
23 curious what you thought when you read through it because, you
24 know, with your experience in the Hawker?

25 A. It seems pretty well laid out. It's a little vague at times.

1 Q. Okay.

2 A. But on the most part, like the general requirements of doing
3 so and how that lays that out is pretty clear at least.

4 Q. Okay. Okay. Thanks. I appreciate that. I'm so glad you've
5 flown the Hawker because I never have. So it's nice to talk to
6 somebody that has flown it and also teaches in it. You have like
7 a great little niche there to help me. First thing I always ask,
8 and I know we as pilots, we have to complain about everything. So
9 I throw that out there first. But you, in your experience, flying
10 the airplane and flying the sim, are they similar or is the sim
11 just not quite the same as an airplane?

12 A. They're similar but not perfectly similar.

13 Q. Okay. Not enough to be, ooh, this is a bad sim, but just
14 different?

15 A. Yeah. It's just like -- it's slightly different, yeah.

16 Q. Okay. Okay. And in the Hawker, how -- this is a terrible
17 way to ask it, but how critical is the CG in a Hawker?

18 A. Like how tight is the CG?

19 Q. Yeah. Like if it's not perfectly in the middle of CG, is it
20 hard to handle?

21 A. Actually, no. The Hawker has a very wide CG range.

22 Q. Oh, okay.

23 A. So -- but generally it's on the more forward side.

24 Q. Okay.

25 A. Like on our passenger and fuel loads and stuff, it's going to

1 be a little more forward.

2 Q. Okay.

3 A. But, yeah. Besides that, no, it doesn't move around much
4 throughout the flight. It only changes maybe an inch or two.

5 Q. Okay. Does that change? From your experience, is it
6 noticeable?

7 A. Slightly, nothing extreme though.

8 Q. Okay. Great. As I said, I've not flown the Hawker. So it's
9 nice to know kind of what you should feel.

10 A. Yeah, yeah.

11 Q. Have you ever had a stick pusher in flight?

12 A. No.

13 Q. Have you ever heard of anybody having an inadvertent stick
14 pusher?

15 A. Not off the top of my head, no.

16 Q. Okay. Now, I know you said if they do get a stick pusher,
17 they have to push the two buttons, the two stall buttons to
18 disconnect the pusher?

19 A. If it was like an inadvertent pusher --

20 Q. Right.

21 A. -- then, yes. That's how you would solve the problem. But,
22 you know, we -- in ground school, we go over the procedure for
23 that when we're doing -- we kind of go through almost every
24 abnormal in the book, and that's one of them is a full stall
25 identification.

1 Q. Okay.

2 A. So that's where we talk about the procedure of pushing those
3 buttons to disable it if you know for sure you're not stalling,
4 but even that procedure says to first assume you are stalling,
5 recover and then if it's still going, then disable it if you know
6 for sure you're flying.

7 Q. Okay. And I'm trying to visualize in my head. I think you
8 said you just push and release and it disconnects?

9 A. Yeah. Correct. So there's two buttons right in front of
10 each pilot.

11 Q. Right.

12 A. So only one pilot has a to do this. You just reach out right
13 in front of you, push both buttons and then they'll both light up
14 inhibit, and now the stall -- the pusher should be inhibited.

15 Q. Okay. And I know you answered to Kat. I just -- I heard
16 parts of it in my head, and it didn't make sense to me. You can't
17 reset it except behind the captain's seat.

18 A. Yeah. So to reset it, there's a diagnostic panel behind the
19 captain's back.

20 Q. Okay. Is that something that can be reset in flight or does
21 it have to have weight on wheels to actually reset?

22 A. From what I remember, I believe you need to be on the ground,
23 but I could be wrong.

24 Q. Okay. Okay. It's not a checkride.

25 A. Yeah, I know.

1 Q. It's just something I haven't heard yet. So I wanted to make
2 sure I understood it.

3 A. Okay.

4 Q. So I appreciate that. As an instructor, when you're grading
5 pilots --

6 A. Um-hum.

7 Q. -- 1, 2, 3, 4. I assume you don't give zeros.

8 A. Yeah, it's usually 1 through 4.

9 Q. Yeah. Okay. In the last -- let me see. I think you've been
10 doing this for 3 years?

11 A. Almost, yeah.

12 Q. Give or take. So you've probably trained quite a few crews.
13 How many -- on average, how many 1s do you give?

14 A. 1 are very rare. I think the last time I gave a 1 was
15 probably like a year or 2 ago honestly.

16 Q. Okay.

17 A. Yeah, 1s are usually -- because usually by the time, you
18 know, if it's initials, by the time they're in the sim, and I'm
19 with them, they've been already kind of been told, hey, this is
20 what you should be expecting. This is what is expected of you.
21 And then recurrents, they've already been doing it. So it's rare
22 in either case honestly.

23 Q. Okay. And just so I kind of get an understanding, the 1 that
24 you gave about a year ago, give or take --

25 A. Um-hum.

1 Q. -- can -- without mentioning any name or anything, just kind
2 of help me understand what did they do to get a 1?

3 A. If I remember properly, it was just a serious lack of
4 judgment, just bad ADM.

5 Q. Okay.

6 A. So that's where I gave the 1.

7 Q. Okay. All right. Great. Icing.

8 A. Um-hum.

9 Q. How well does the airplane -- I don't want to say handle
10 icing because no airplanes handle icing great. They can handle
11 it, but there's different characteristics to it. How is a Hawker
12 when it comes to icing? If it starts getting a little bit of
13 icing, is it easy to handle?

14 A. It varies. So I've been in icing conditions in the Hawker
15 before. The TKS system running usually works well. The issue
16 does become, of course, with it's not ice protected everywhere.

17 Q. Um-hum.

18 A. So I have heard stories from other pilots about getting into
19 really bad icing where the wings and tail are fine but then like
20 their nose cone has a ton of ice on it or like other unprotected
21 parts get a lot of ice on it. So they're landing a lot heavier
22 and a little more -- with a lot more drag than they were
23 expecting. But in general, I haven't personally experienced
24 anything extreme regarding icing.

25 Q. Okay. In the sim, do you give severe icing?

1 A. That is one of the scenarios you practice, yes.

2 Q. Okay. So how does the sim handle it? I know you're not
3 really accumulating icing, but how does the simulator handle it?

4 A. I think it does it pretty well. So the sim does -- it makes
5 the controls more sluggish. So it kind of simulates the lack of
6 or the change in airflow over all the control surfaces due to the
7 icing build up because our scenarios is TKS failure.

8 Q. Okay.

9 A. That's where ice starts building up on all of the critical
10 surfaces, and so the scenarios is that the clients now have to
11 figure out how to handle the plane and quickly get it on the
12 ground before they get too iced up.

13 Q. Okay. Now, when you do TKS failure, is that a light that
14 illuminates or --

15 A. Yes.

16 Q. Okay. So it's actually telling the crew it's failed?

17 A. Yes.

18 Q. Is there any scenarios you give where the airplane just
19 starts accumulating ice? Like it's on top of the clouds in
20 freezing conditions and just building up ice. Is there any, you
21 know -- the crew may think they're in pretty close to IMC
22 conditions and not realizing they're picking up icing. Is there
23 any way the airplane will tell them you're picking up icing?

24 A. There's an ice detector, yes. So that light would come on.
25 There's a separate light for that, too.

1 Q. Does it come on pretty quick? Or -- and I know that's a
2 relative term. So my bad.

3 A. It is on a delay. I know that.

4 Q. Okay.

5 A. It doesn't take too long. So I would say maybe about 30
6 seconds or so after the ice starts building up. Yeah, I would say
7 something like that.

8 Q. Okay. And when there's a delay, and ice is building up, can
9 the TKS get rid of the ice that's built up?

10 A. It's not certified to. It's just certified as anti-icing.

11 Q. Right.

12 A. But I have personally seen in real life it get rid of a very
13 small layer of ice.

14 Q. Okay.

15 A. So long as it can make it out onto the wing, then it will
16 melt it away.

17 Q. Okay.

18 A. But it's technically not certified for deicing.

19 Q. Okay. Perfect. Those were the words I was looking for.
20 Sorry, it's the end of the day and I wasn't articulating that. So
21 I appreciate you pointing that out.

22 A. Um-hum.

23 Q. That was the test. No, just kidding. Just kidding. I know
24 you trained this one Clay Lacy pilot.

25 A. Um-hum.

1 Q. How many Clay Lacy pilots have you trained if you can recall?

2 A. At least a few dozen.

3 Q. Okay. A few dozen.

4 A. Yeah.

5 Q. Okay. How -- I know you can't remember everyone of them.

6 Everybody remembers the really bad or the really good.

7 A. Um-hum.

8 Q. But overall, how do you feel working with those pilots? Are
9 they, you know, professional good pilots that know what they're
10 doing, come prepared?

11 A. Yes.

12 Q. Or are they, you every now and then have some that -- not so
13 much.

14 A. For the most part, they're all pretty good.

15 Q. Okay. How about in general, pilots that you train? Do you
16 find challenging pilots that don't really come well prepared?

17 A. You mean from any company?

18 Q. Anybody.

19 A. Yeah. Once in a while, yes. So some people might come
20 through that need a lot of extra help.

21 Q. And how do you go about giving them that extra help or can
22 you?

23 A. It just depends on what they need help with. So if they're
24 struggling about something, you know, I mean I will grade
25 everything appropriately, and I'll also tell the training manager

1 just, you know, to maybe say, okay, this person might need a
2 couple of extra sims or maybe an extra AVT or something. It just
3 varies with the exact problem.

4 Q. Have you ever had to, I hate the word fail, but fail
5 somebody's sim session? You can't go by this sim session. You've
6 got too much work to do.

7 A. Yes.

8 Q. How often have you had to do that? Ballpark, you don't have
9 to give me exact.

10 A. I would say once every few months.

11 Q. Okay. In doing so, do you have to explain to your boss, why
12 and is there any pressure to not do that?

13 A. No, that's what we're told to do. So if someone needs extra
14 help, go to the training manager and let them know.

15 Q. Okay. I know pilots, you know, sometimes we get a little
16 wrapped around the axle, and we don't like to, we don't like to
17 fail things.

18 A. Um-hum.

19 Q. But sometimes it's inevitable. When you fail -- when
20 somebody doesn't pass a sim session with you --

21 A. Um-hum.

22 Q. -- do they typically get another instructor?

23 A. I would say it varies sometimes because it depends on the
24 issue because I see -- I don't know if their issue is me or, you
25 know, maybe they just needed to practice something more, but I

1 mean I've been in both scenarios where, you know, I might not let
2 someone go through and then they're not with me, and then I not
3 too long ago was in the complete opposite where I did kind of hold
4 these two clients back from going to their next sim, but they were
5 scheduled with me the next day anyways. So, I still did a repeat
6 for that sim, and then they did a lot better and I let them go on.

7 Q. Okay. All right. That helps. Thank you.

8 A. Um-hum.

9 Q. I know you said -- I don't want to put words in your mouth.
10 You don't teach full stalls except the demo, right? I mean full
11 stalls to the pusher.

12 A. Correct. Yeah.

13 Q. So, the pusher, how violent is that? I use violent in
14 general terms.

15 A. Could you clarify?

16 Q. Sure. When you demonstrate the pusher and it pushes --

17 A. Yeah.

18 Q. -- does it slam the nose -- the yoke forward, the nose down
19 and, you know, is it a maneuver that kind of almost raises you in
20 your seats or is it just kind of like, oh, okay, here, you -- kind
21 of a non-event.

22 A. Somewhere between.

23 Q. Okay.

24 A. I mean it's noticeable. It's very noticeable, and it's a lot
25 of hydraulic force going into the elevator cable. So, I mean if

1 you're holding onto the controls, it's going to pull your arms.
2 So in that sense, and how the plane reacts, it will pitch down
3 quickly, but not necessarily to the point where it will
4 necessarily raise someone out of their seats. It's hard to tell
5 in the sim. I would estimate it would -- you'd feel it quite a
6 bit but nothing extreme.

7 Q. Okay. Have you ever seen anybody trying to override the
8 pusher by pulling back?

9 A. In general, yes. So people who have -- you mean during the
10 demo specifically?

11 Q. Whenever they get a pusher, do you ever see them trying to
12 fight the pusher?

13 A. Oh, yeah, I've seen people mess up stalls multiple times, and
14 then I correct them on that, and then we practice it again and
15 they do it better.

16 Q. Okay. Have you ever seen a stall, in your experience in the
17 sim, I know you've not stalled the airplane, thank goodness --

18 A. Yeah.

19 Q. -- right. But in the sim, have you ever seen a scenario
20 where the crew's fighting it and they stall it and it dumps them
21 over on their back or, you know, I mean it comes to a point when
22 the sim shuts down, but have you ever seen --

23 A. Not from a stall, no.

24 Q. Okay. You've seen that from other things?

25 A. Yes, just general mishandling of the control of the plane,

1 but not during a stall.

2 Q. Okay.

3 A. I have seen people, like I said, do a bad stall recovery
4 where they're kind of fighting to keep the nose up rather than
5 lowering the angle of attack, but in terms of actually like
6 getting to the point where they roll it over, even if they're
7 fighting it, they still barely keep control of the plane every
8 time.

9 Q. Okay. Have you ever seen it in the sim -- and I'm sorry, I
10 know these are some weird questions, but I'm just trying to
11 understand it better.

12 A. Yeah.

13 Q. Have you ever seen it in the sim where it gets the stick
14 shaker going but then it also encounters an aileron snatch where
15 it's trying to pull the aileron the opposite direction like
16 you're doing?

17 A. No.

18 Q. You've never seen that?

19 A. No.

20 Q. Is that's ever talked about?

21 A. No, not really. No.

22 Q. Okay. Have you ever heard of it before?

23 A. I have actually but only in the manual.

24 Q. Okay.

25 A. So -- but I've never actually heard of anyone experiencing

1 that at all.

2 Q. Okay. That's great to hear. That was going to be my next
3 question. So thank you for getting to that. The last little
4 batch of questions, and then I'll turn it back to Kat because my
5 brain's got to absorb a little bit. When you're doing a training
6 event --

7 A. Um-hum.

8 Q. -- there's no training event where you go in and assist,
9 let's just fly another pattern and no problems. There's always
10 some kind of abnormalities because that's how you learn. How do
11 you decide what abnormal events occur?

12 A. They're listed for like whatever sim we're doing.

13 Q. Okay.

14 A. So like the -- not necessarily the exact thing that fails,
15 but the kind of thing that needs to fail. So like some of the
16 sims, there's needs to be some kind of instrument failure. So we
17 can decide what that is but they still have to do some kind of
18 instrument failure.

19 Q. Okay.

20 A. So things like that.

21 Q. Okay. So how do you decide?

22 A. I go with whatever the scenario is.

23 Q. Okay.

24 A. And then kind of work backwards from there. So like, for
25 example, the S16, the hot weather, you know, the mountainous

1 terrain, there has to be some kind of GPWS escape. So, I will
2 set that up where they just departed out of a mountainous airport
3 and didn't quite get a good initial altitude from the controller.
4 That's what brings them towards the -- that's just a scenario I
5 use for that.

6 Q. Okay. And when you use that scenario, do you note that
7 anywhere? So let's say you were teaching me today and that was
8 the scenario that you -- of the session and that's what you did,
9 was give them a low altitude, level off and give them a CFIT. Do
10 you make note of that. So tomorrow if I get a different
11 instructor, they don't give me the same type of event.

12 A. Well, in terms of how each instructor does things, some of us
13 do it the same. Some of us do it differently, like just
14 naturally.

15 Q. Okay.

16 A. But, a lot of the line items are just simulator or sim
17 session specific. So there are some requirements that are
18 repeated. Like the stalls are all repeated multiple times in
19 everyone's training. But something like the CFIT is only going to
20 be on one sim session anyway.

21 Q. Okay.

22 A. So it just varies.

23 Q. Okay. You mentioned the stalls are -- how many sim sessions
24 are stalls done on?

25 A. So I'd say for -- depending on the footprint, like an

1 initial, they're going to do it many times. They're going to do
2 it on the S1, 2, 5, 7, and the checkride. So they're going to do
3 it like at least five times.

4 Q. Each of the three they're going to do five times --

5 A. Yeah.

6 Q. Wow. Okay. Okay. All right. I think you've answered all
7 my questions for now. So I'll let my mind chew on that a little
8 bit.

9 A. Okay.

10 Q. I'll turn it back to Kat. Thanks.

11 A. Yeah.

12 DR. WILSON: I hate to be the person who says it's your turn
13 again. I don't have anything else.

14 MR. ETCHER: Well, my brain hasn't chewed on it I guess. So
15 I guess I don't have anything else either. So thank you very
16 much.

17 MR. GOLDING: No problem.

18 BY DR. WILSON:

19 Q. Owen, thanks so much for all the information you gave us.
20 We've asked you a lot of questions, but was there anything that
21 you were thinking, you know, coming in here that you thought, oh,
22 I'm sure they're going to ask us about this and I didn't ask you
23 about it?

24 A. No, it was as expected.

25 Q. Okay. Anything else that you can think of that might be

1 relevant to our investigation?

2 A. No, not right now.

3 Q. All right. Well, you have our cards.

4 A. Um-hum.

5 Q. So if anything changes, don't hesitate to reach out to us.

6 DR. WILSON: We'll go off the record at 5:23.

7 (Whereupon, at 5:23 p.m., the interview was concluded.)

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CERTIFICATE

This is to certify that the attached proceeding before the
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FATAL HAWKER 900XP ACCIDENT
NEAR WESTWATER, UTAH
ON FEBRUARY 7, 2024
Interview of Owen Golding, Jr.

ACCIDENT NO.: WPR24FA083

PLACE: Whippany, New Jersey

DATE: September 12, 2024

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.



Kathryn A. Mirfin
Transcriber

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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FATAL HAWKER 900XP ACCIDENT

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NEAR WESTWATER, UTAH

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Accident No.: WPR24FA083

ON FEBRUARY 7, 2024

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Interview of: ANTHONY MANCINI, Gulfstream 550 Instructor Pilot
CAE

via Microsoft Teams

Thursday,
September 12, 2024

APPEARANCES:

SHAWN ETCHER, Operational Factors Investigator
National Transportation Safety Board

DR. KATHERINE WILSON, Human Performance Investigator
National Transportation Safety Board

RICHARD SHIARELLA, ESQ.
Senior Legal Counsel for CAE

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I N T E R V I E W

(9:16 a.m.)

MR. ETCHER: All right. Good morning. It is 9:16 on September 12th. We are here with Anthony, an instructor with the CAE. My name is Shawn Etcher. I'm an operational factors investigator with the NTSB. All that means is that I look at everything kind of forward of the cockpit door and how it interacts with the crew. In this case, we're looking at training, how the crew's training was, what they were taught, how that interacts with them as well.

This is involving the event that occurred back on February 7th of this year in Westwater, Utah.

Like I said, I'm going to look at every before the cockpit door, but my role here is to learn everything we can about this accident, so we can help the accident investigation. So, hopefully we can prevent anything similar to this happening again.

As part of our process though, we always invite parties in. However, we don't have any parties with us today. But I do have somebody that's really good at her field, and I will have Kat introduce yourself to you. Kat.

DR. WILSON: Good morning. I am Kat Wilson. I am a human performance investigator with the NTSB. So like Shawn, I work really closely with other specialties to better understand sort of the human factors that were going on in an accident.

MR. ETCHER: All right. Thank you, Kat. As part of our

1 process, we do record all our interviews. Those recordings we do
2 send off to be transcribed. That transcript will come back to us.
3 We'll go through it to make sure there's no typos of acronyms and
4 things along that line, but we never change what you said. We get
5 it recertified. Then we will send that transcript to your legal
6 counsel who can provide it to you to read through if you'd like.
7 And then if there's something that's not clear there or misstated,
8 you have every opportunity to write a statement, and we will
9 attach it right to that transcript as well. Is it okay first of
10 all if we record and transcribe this interview.

11 MR. MANCINI: Yes.

12 MR. ETCHER: All right. Thank you very much. Now, that
13 transcript, once this case starts getting closer to completion,
14 that transcript will actually become part of our public docket.
15 So that's why we want to make sure you have an opportunity to
16 review it for its accuracy and if you need to clarify anything.
17 So I just want to make sure you're aware of it.

18 The recording that we do does not become part of any of our
19 public docket at all. So you don't have to worry about hearing
20 your voice on the 10 o'clock news at night or anything.

21 All righty. As part of our regulations, you are entitled to
22 have a representative with you virtually or in person. Do you
23 wish to have such?

24 MR. MANCINI: Yes.

25 MR. ETCHER: And is it Richard that you would like?

1 MR. MANCINI: It is.

2 MR. ETCHER: And, Richard, for the record, would you please
3 introduce yourself and your role.

4 MR. SHIARELLA: Of course. Richard Shiarella, senior legal
5 counsel for CAE. I've been with the company for going on 18
6 years, first as an instructor and now as legal counsel.

7 MR. ETCHER: All right. Thank you very much, Richard.

8 MR. SHIARELLA: Of course.

9 MR. ETCHER: Before we get started with the actual interview,
10 there's always a few rules. We're the Government, right. We have
11 to have some kind of rules somewhere. But, during this interview,
12 I want to make sure you understand, it's not a checkride. It's
13 not a test. It's not quiz. We're learning from you. So we hope
14 you will be more of dialogue and conversation and teach us
15 everything we can and learn. So I appreciate your willingness to
16 come in but I just want to make sure you realize this is not a
17 checkride, nothing like that.

18 Sadly, sometimes I ask questions that sound really good in my
19 head but they don't come out of my mouth the same way. So if
20 something is not clear, please ask for clarification. You won't
21 hurt my feelings a bit, and sometimes I even catch it, I'm like,
22 that probably wasn't clear, let me clarify it for you. But, if
23 something doesn't make sense to you or you want us to clarify it,
24 just ask. There's no harm in that. Because I guarantee you give
25 me an answer that I don't quite get or understand, I'm going to

1 ask for a little bit more clarifying. So it's definitely a two-
2 way street.

3 If during this interview you need a break to talk to counsel,
4 go get coffee, use the bathroom, whatever, please say so. We'll
5 just hit pause, take a break and come back and continue. So don't
6 feel like you can't take a break if you need to. It's perfectly
7 fine if you want to.

8 The last rule I always have, and I always feel like it's kind
9 of the one most important rule in my mind is, if we ask a question
10 that you don't know the answer, I don't know works perfectly fine.
11 As I said, it's not a checkride. You don't have to know
12 everything, but if you do, great. But if you don't know, just
13 tell us you don't know or if you have an opinion on something,
14 please just say my opinion or let us know that it's your opinion.
15 So when I'm reading through this in a month, I can remember, oh,
16 yeah, that was his opinion. So if that's all right with you, any
17 questions on that so far?

18 MR. MANCINI: No, sir.

19 MR. ETCHER: Okay. Perfect. Then we'll get started.

20 INTERVIEW OF ANTHONY MANCINI

21 BY MR. ETCHER:

22 Q. I always try to start with the tougher questions first, and
23 then it gets easier from that point on. So, for the record, could
24 you please state your name and spell your last.

25 A. Anthony Mancini, Jr., M-a-n-c-i-n-i.

1 Q. All right. Thank you, Anthony. And what is your job title?

2 A. My job title right now is a Gulfstream 550 instructor pilot.

3 Q. Okay. And who are you an instructor pilot with?

4 A. CAE.

5 Q. All right. Perfect. And to be an instructor pilot, I'm
6 going to assume you have to some kind of airman certificates. Is
7 that correct?

8 A. That's true.

9 Q. So what kind of airman certificates do you have?

10 A. All right. I've got an ATP single engine land, an ATP
11 multiengine land, ATP rotorcraft, helicopter, commercial, glider.

12 Q. Okay. Any type ratings with those?

13 A. I've got about 12 different type ratings. Do you want me to
14 list them?

15 Q. I'll keep it simple. How's that? Do you have a Hawker type
16 rating?

17 A. I do.

18 Q. All right. Perfect. That's good enough for me. I
19 appreciate it. I'm sure you could list all 12 of them but I know
20 I'd have problems. So, you know, as long as you're typed in the
21 Hawker, that's great.

22 Q. This is always the toughest question. Well, these two next
23 questions are usually the toughest. Do you have an idea what your
24 total time is?

25 A. Total time before I lost my medical in 2012, it was around

1 14,000 hours plus.

2 Q. All righty. Do you remember -- do you have any -- let me
3 rephrase that. Do you have any time in a Hawker?

4 A. I have no actual aircraft time in the Hawker.

5 Q. Okay. Perfect. All righty. So if you could, kind of give
6 us just a really brief, cliff notes version of your aviation
7 history. I mean having that many certificates, that many type
8 ratings, you obviously have some history in aviation. So if you
9 can just give us a brief cliff notes version of it, it would help
10 us understand your background.

11 A. I started in aviation in the U.S. Air Force. I was an air
12 traffic controller, radar. I transferred directly out of the Air
13 Force and into the Army. Went to a warrant officer flight school
14 where I flew Cobras, TAC (ph.) helicopters. After I got out of
15 the military, I finished up in my commercial helicopter and
16 started flying those, and then I started finishing up my fixed
17 wing training. I had gotten my private pilot's license through
18 the Air Force Aero Club. And as I built up my time and went from
19 one grade of pilot's license to the other, I started working,
20 flying tour helicopters, and I moved into corporate where I flew
21 fixed wings and helicopters in my career.

22 Q. Okay. That's an impressive career.

23 A. Thank you.

24 Q. So when did you start working at CAE?

25 A. I started working at CAE right around 2020, right around

1 January of 2020.

2 Q. Okay. And I know, and correct me if I'm wrong, I think
3 currently you're based down in Savannah, Georgia?

4 A. I transferred from the NATC down to Savannah.

5 Q. Okay. Perfect. About how long ago were you based up here in
6 New Jersey?

7 A. I was up in New Jersey right around January/February of '24
8 is when I transferred down.

9 Q. Okay. Perfect. All right. So, we'll start getting in just
10 a little bit if you will here, when you were up here in New
11 Jersey, were you in the Hawker up here?

12 A. I was in the Hawker program up there, yes, and I also got
13 certified on the Gulfstream 4 SP while I was up there. And then I
14 expressed a desire to come down to Savannah, I got typed in the
15 G550.

16 Q. Nice. Okay. Perfect. All right. So when you were up here,
17 doing training, you did training in a Hawker, correct? I want to
18 make sure I have that correct in my brain first.

19 A. I did. I was an instructor pilot in the Hawker series.

20 Q. Okay. Did you train in any of the Clay Lacy pilots that you
21 can recall?

22 A. I think towards the end, I did maybe three or four events
23 with Clay Lacy pilots.

24 Q. Okay.

25 A. I couldn't be exact.

1 Q. That's okay. So, I know you're probably going to have to
2 think back a little ways. So I apologize for making you dig back
3 into your brain matter here, but was there anything that stood out
4 to you about any of the Clay Lacy pilots? Were they normal? Were
5 they a lot of work, easy? Maybe you don't remember, and that's
6 okay.

7 A. The Clay Lacy pilots didn't sound out one way or the other.
8 They were just students coming through trying to do the best they
9 could.

10 Q. Okay. Now, when you get a student, let's say for a moment, I
11 come in here and, you know, to receive training and you get
12 assigned to me. I want to say apologies in advance if that would
13 happen because you don't want to be assigned to me. But, you get
14 assigned to me. Will you keep me all the way through training or
15 does that vary? Kind of help me understand how the training
16 footprint works.

17 A. It is -- I would say it's very unusual to get a student on
18 day 1 in the simulator and carry that student all the way through
19 to before the checkride due to scheduling with the check airmen
20 and days off, with vacations. It's usually you pick up students
21 at various points in their training.

22 Q. Okay. Okay. So I'm going to ask for your opinion here
23 because of your experience. If you get a student -- let's say you
24 got me for, I don't know, I'll just give a number here, two sim
25 sessions. And then I get passed off to somebody else. Does that

1 make the training more challenging, more rounded, better, worse?
2 Kind of help me understand in your opinion how does that work, you
3 know, from your viewpoint as an instructor getting students that
4 already had some training but not all.

5 A. Well, for me, when I pick up a student that's done training
6 with another instructor, I consider that it's a good thing because
7 different points of view, different teaching techniques, can help
8 the student expand what they're learning.

9 Q. So I'll ask for another opinion here. Does it hinder you at
10 all if you -- let's say you got me as a student. I had already
11 had three simulator sessions with somebody else, and you come in
12 and you have me for just one simulator session. Does that give
13 any challenges for you or is it everything's pretty much, you
14 know, plug and play instructors if you will, you all do the exact
15 same thing just maybe different techniques in training?

16 A. I agree with what you said at the end of your statement
17 there. It's pretty much plug and play. If a student comes in for
18 a cold weather or whatever sim period and we go over the plan of
19 action for that period, he should be able to understand exactly
20 what we're going to do for that period, no matter who he's been
21 with before me.

22 Q. Okay. Perfect. So, on a -- I'm going to use the word
23 typical, but I'm going to put it in air quotes because there's no
24 typical in aviation, I understand, but a typical training session,
25 how long do you typically keep a student through the training

1 session? Is it usually just one day or typically are you with
2 them a few more days than that?

3 A. That is -- it varies so much, and there's some, there's some
4 times when there's people that are on vacation or out sick or I'll
5 pick up a student and have them for 2 or 3 days, but then most of
6 the time, I might get them for 1 day and then hand them off and
7 then pick them up for another day, but there's no real way to
8 describe how many days in a row I'll have a student.

9 Q. Okay. No, and that helps a lot. I just wanted to make sure
10 I understood kind of the interaction and what is, I don't want to
11 say normal, but what your experience has been. So I appreciate
12 that understanding. Let's kind of get into the event itself.
13 First of all, did you know either of the pilots that were involved
14 in the accident?

15 A. I only met one of the pilots and I only had that one pilot
16 for one session and that was for a recommendation session for his
17 checkride.

18 Q. And which pilot was that?

19 A. Let's see here. I had his name. That was Darrin Towe.

20 Q. Okay. Now, I know you've got his records there, and that's
21 great. Please refer to anything you need. Can you kind of think
22 back. What was he like as a pilot? I mean I know you said they
23 all seemed to be like normal pilots, nothing stood out, but I
24 wasn't sure when you were reading through his records, if anything
25 about him came back to your mind.

1 A. Nothing stood out. He came in to do his training session and
2 the session went fine. I don't even remember exactly what he
3 looks like. It's been that long.

4 Q. Okay. Okay.

5 A. But nothing stood out to me about him.

6 Q. Okay. And, you said it's been that long. Do you have a date
7 that you actually interacted with him?

8 A. I can look at the record and tell you what day the S7 was but
9 -- it looks like the date was October 25th of '23 is when I think
10 his S7 was.

11 Q. Okay. And just for the record S7 is simulator session 7, the
12 one right before the checkride then?

13 A. Yeah, it's called the recommendation and review.

14 Q. Okay. All right. Did he had anything that you had any
15 concerns on looking through the records?

16 A. No. The reason that I was working with him was because there
17 were some things that didn't go well on his first S7. So when he
18 came in, we worked on those maneuvers, and those maneuvers went
19 very well.

20 Q. Okay.

21 A. So I gave him passing grades on all maneuvers that he needed
22 to be brought up to snuff on and recommended him to take the
23 checkride.

24 Q. And do you remember or do you have a record of what those
25 maneuvers were?

1 A. I do. I can tell you what they were if you would like me to
2 list them.

3 Q. Sure. Go for it. If you can find it, that would be great.

4 A. Okay. So, his low visibility reject takeoff, the other
5 instructor gave him a non-passing grade. When I did it with him,
6 he performed to standards. Stall prevention, the partial flap
7 stall, what we call the departure stall. That was below standards
8 with the other instructor, but when he performed it for me, it was
9 right within the standards. So there was no problem with that.
10 The next, just an approach to stall, that's not a full stall. On
11 missed approaches, the single engine and the missed approach from
12 the non-precision or missed approach from a non-precision
13 approach, the other instructor said he needed some work. We did
14 those in the course of running the training, and there were no
15 problems on either of those. And then crew resource management,
16 the other instructor said that he was a little subpar on CRM
17 situational awareness and his comm procedures. I didn't see a
18 problem with any of those. He interacted really well with the
19 other pilot. The radio calls were fine, and his situational
20 awareness was good. And then the only other thing was -- let's
21 see. Performance of pilot not flying. He didn't like his
22 performed as the pilot not flying but when he was in the right
23 seat with the other pilot, he performed all of his duties and
24 interacted well with pilot flying. Let's see. Emergency descent,
25 we went ahead and did one of those, and that was within the

1 standards. And then thunderstorm avoidance and there's one that
2 was marked off, stall warning which is not normally done on a S7
3 but the other instructor didn't like the way he performed with a
4 stall warning malfunction. So I went ahead and we did one of
5 those, an extra stall, and he saw the stall and performed well.
6 And again, all of these are to approach to stall, the stick
7 shaker. We never teach to full stall.

8 Q. Okay. So while we're talking about the full stall there for
9 a minute, that you never teach to. You have no pilots that come
10 in that get top full stall maneuvers in the simulator?

11 A. No. No. The farthest that we go is one of the days, and
12 this is only a demonstration, we'll go to altitude. We'll go to
13 the stick shaker and recover, and then we'll tell them to reenter
14 the stall and fly through the shaker to the pusher just to
15 demonstrate the pusher to them. But we never teach through a full
16 stall.

17 Q. Okay. So -- and I appreciate you mentioning the stall, you
18 know, that you don't teach a full stall. Is there a reason you
19 don't teach to a full stall whether it's your opinion or a CAE
20 rule, whatever it is, but is there a reason you guys don't do one?

21 A. I couldn't tell you the exact reason. All I know is that
22 when I was going through training, this is what I was told that we
23 do during the program, and it's part of our curriculum.

24 Q. Okay. So, let's talk about when you, for the demonstration
25 of only, and you have them get to the stick shaker, recover and

1 then reenter and take it all the way to pusher. How does the
2 simulator, and I know simulators aren't aircraft, but how does the
3 simulator handle a full pusher stall? Is it a non-event? Is it,
4 you know, easy to get it, you know, worse? Kind of help me
5 understand in the sim, what's the pilot limitations on that?

6 A. And so it's basically a clean, straight ahead entry until the
7 maneuver -- once the sticker pusher activates, it's a non-event.
8 The nose goes down, the pilot disconnects the -- not disconnects,
9 but take control of the aircraft and just flies out of the stall,
10 recovers from the stall.

11 Q. Okay.

12 A. It's a docile event. It's not violent at all.

13 Q. Oh, okay. And when you had them do that, are they hand
14 flying it from the shaker to the pusher or do you have it coupled
15 up?

16 A. All the stall maneuvers that we teach as per Hawker, the
17 autopilot is disengaged.

18 Q. Okay.

19 A. So it's all hand flown.

20 Q. Okay. If, and I'm saying if, and maybe you don't know.
21 Remember, I don't know is always an answer you can use. If I was
22 working for an operator and they sent me here for training and you
23 drew the shortest straw and had to train me, and they said, no, I
24 want you to train my pilots to a full stall every time. Is that
25 something you guys can do or you have ever done?

1 A. As far as I know, it's not in our curriculum. So we can't do
2 it.

3 Q. Okay. Okay. Now, let's kind of get back to the pilot that
4 you had done, his S7 on. It seemed like you listed off quite a
5 few non-satisfactory events for a S7. Is that, is that a normal
6 amount? Does that seem like a lot to you? Kind of help me
7 understand because in my brain that seemed like a lot if you're
8 getting ready for a checkride.

9 A. To me, I couldn't tell you exactly why those were
10 unsatisfactory because looking through his training records, a lot
11 of the ones that he got an unsat on his S7, he had gotten 3s on
12 for days in a row before that. So it could have just been
13 something particular that that instructor didn't like or whatever.
14 So, but when I had him, he performed within the standards of the
15 maneuver, and I didn't see a problem with it.

16 Q. Okay. And for the record, you say he received a 3 for all of
17 them. Is 3 normal, average, above average? Kind of help me
18 understand what your grading scale is.

19 A. The grading scale is 1 to 4, 1 being totally unacceptable and
20 a 4 being exceptional. A 2 is below standards but improving, and
21 then a 3 is meets the standard of the maneuver.

22 Q. Okay. Okay. And you had said that he had performed these
23 maneuvers within the standard. What is the standard on the stall
24 -- I think you said he had a stall warning malfunction. What is
25 the standard on that? Is there to grade on?

1 A. No, the standard you'd grade on would be when the stick
2 pusher was to activate or rebuffer, lower than those, increase the
3 air speed to a safe air speed and then start raising the hose to
4 recover his altitude. There's no minimum or maximum loss of
5 altitude on it. It's a safe recovery. That is what we're looking
6 for.

7 Q. Okay. All right. Is that -- in your history, have you seen
8 a lot of people have issues with stalls in the Hawker?

9 A. I wouldn't say a lot of people but we do get some very new to
10 jet pilots coming through, and sometimes they just don't grasp it
11 right away, but after time and training, they can -- they will get
12 up to standards.

13 Q. Okay. Okay. And for this pilot, was this his initial check
14 into the event or was it a recurrent? Do you recall? I assume by
15 S7, it would probably be initial, but every time I assume it's
16 wrong.

17 A. It is. I mean we did a S7 and S8 back-to-back for a
18 recurrent if that's what your company books, but this was an
19 initial training.

20 Q. Okay. Okay. All righty. And, I know you said he had an
21 issue with the stall warning malfunction on the previous
22 instructor.

23 A. Um-hum.

24 Q. What kind of a stall warning malfunction would you, would you
25 give?

1 A. I would maybe fail the angle of the attack probe (ph.) and
2 then his indication would be to buff it, but I don't know what the
3 other pilot -- what the other check -- or not check, but
4 instructor gave him.

5 Q. No, and I don't want you to answer for that other instructor.
6 I just want to know what you would do and I appreciate the honesty
7 because I -- to me I hear stall warning malfunction. I'm like,
8 well, that can be a lot of different things. So I just kind of
9 want to know what you do just so it kind of helps me have a better
10 understanding of what it could be like.

11 In the sim, when you guys do stalls, do you have a certain
12 altitude you have to be above in the sim to do them?

13 A. No, we usually start the stall series for -- it all depends
14 upon whether it's a 91 or 135 customer. The 91 customers, we do
15 scenario based which means we will actually do an approach to
16 stall that we can configure on an approach or a departure stall on
17 a departure and then to clean at altitude. For 135, we do the
18 entire three stalls at 10,000 feet.

19 Q. Do you ever do stalls at a lot higher altitudes?

20 A. The only one that we do at higher altitudes would be the
21 sticker pusher demo, and that's done at about 31,000 usually.

22 Q. Okay. Does -- the simulator in this case, does it have any
23 difference in handling characteristics when it comes to the
24 recovery of the stall at a higher altitude versus 10,000 feet?

25 A. The stall recovery takes a little bit longer to regain the

1 air speed but other than that, it's just as docile in the
2 simulator at 31,000 as it is down at 5 or 10.

3 Q. Okay. All righty. I know you also said that there's no
4 minimum or maximum amount of altitude loss that you grade on. In
5 your experience, what do you typically see for altitude loss on a
6 stall recovery?

7 A. Well, depending upon whether it's the approach or the
8 departure stall -- excuse me. Typically, it would be about 4 to
9 500 feet while the air speed builds up, depending upon how quickly
10 they get the nose down and recover their air speed.

11 Q. Okay. All right. So, for a minute, we'll go back to my
12 scenario that my company bought time for me to come in and get
13 trained and you drew the short straw and you were training me in
14 the Hawker. And you have to get that section where we're trained
15 in stalls. Kind of walk me through how you train a pilot on stall
16 recovery techniques in a Hawker considering I never flew a Hawker
17 in my life.

18 A. The first thing during the brief, we would talk about what's
19 going to happen. We're going to -- let's say we're doing the
20 departure stall. We're going to be taking off and at about 7 or
21 800 feet, I'm going to give you a turn in a climb, and I'm going
22 to ask you to bring the throttles all the way back to idle and
23 keep flying the departure. You're going to get the stick shaker.
24 As soon as you get the stick shaker, max power, lower the nose
25 below the horizon at 5 degrees, let the airspeed build up to about

1 145, 150 knots, level the wings and start bringing the nose up
2 slowly to avoid a secondary stall. And then once we're in a
3 climb, the recovery is done.

4 Q. Okay. So you say lower the nose to the horizon or below the
5 horizon. You only do it in VFR conditions or do you simulate IMC
6 conditions?

7 A. No, the stalls are done IMC.

8 Q. Okay.

9 A. We may brake out the IMC if they're on the approach and they
10 get below the cloud layer but the maneuver is initiated IMC.

11 Q. Okay. Have you ever trained someone doing a stall that, for
12 lack of a better phrase, they mess it up or do something wrong and
13 enter a spin or secondary stall condition that makes the situation
14 worse?

15 A. I've had plenty of students, especially the newer ones that
16 will either bring the nose up too soon or bring the nose up too
17 fast and get a secondary stick shaker but to a full stall or a
18 spin, never.

19 Q. Okay. All right. With this pilot, you passed him on as S7.
20 So you could -- or I'm sorry. I shouldn't say passed. You
21 recommended him for his checkride.

22 A. Right.

23 Q. Was there any -- in your opinion, was there any pressure to
24 recommend him for a checkride since this was his second attempt at
25 S7 or if you said, no, he's so not really, there's no pressure,

1 you can redo it?

2 A. I've never gotten pressure as an instructor to pass somebody
3 to go to the checkride. And, personally, I have -- I don't want
4 to say stopped, but I've not recommended a few students that were
5 definitely not ready to take the checkride. And if this gentleman
6 didn't meet the standards, I would not have recommended him.

7 Q. Okay. So I don't want to put words in your mouth, but does
8 it play into your mind that this is his second attempt, I don't
9 want to, I don't want to cause him problems by busting him? Like
10 this was kind of okay. That stuff never enters your mind I guess?

11 A. No, it doesn't.

12 Q. Okay.

13 A. He either can perform to the standards for the checkride or
14 he can't.

15 Q. Okay. My last question, and then I'm going to pass it over
16 to Kat because she always asks the really good questions. My last
17 question is you got this -- the accident pilot, for a second S7.
18 did you talk to the instructor beforehand that did not give him a
19 satisfactory rating on the previous S7 to kind of get a feel for
20 this student?

21 A. I did not. It was either because we just didn't cross paths
22 in the building or he didn't call me but, no, there was no
23 interaction with the other instructor.

24 Q. Okay. All right. Well, I told you that was my last question
25 for this round, and I forgot to tell you at the beginning. We

1 always do two rounds. The first round always takes the longest.
2 The second round is always really quick. But we just kind of go
3 around the table. So, before I pass it off to Kat, I want to make
4 sure -- do you need a break? I mean you've been going for 45, 50
5 minutes. Now, plus having to do with my technical difficulties
6 early with computers and stuff, but do you need a break or
7 anything or are you doing okay?

8 A. If I could take a break real quick for just a couple of
9 minutes because if we're going to keep going for a little bit
10 longer, I was scheduled to do a sim period starting at 10 o'clock.
11 So, I'm going to just tell my boss that we're going to start later
12 than that.

13 Q. Yeah, absolutely. We can go off the record at 9:51, and take
14 your time. No worries.

15 (Off the record at 9:51 a.m.)

16 (On the record at 9:58 a.m.)

17 MR. ETCHER: And we are back on the record at 9:58 local.
18 Again, thank you for everything you've given me so far. My
19 brain's kind of mushing it altogether. That's a technical term,
20 mushing it. But, while it tries to ingest some of that, I'm going
21 to pass it off to Kat. She always has the really good questions,
22 and so I will turn it over to her. Kat.

23 DR. WILSON: Thanks so much.

24 BY DR. WILSON:

25 Q. I don't actually have a lot of questions, Tony. I know you

1 said that you don't train stalls to failure or to a full stall.
2 Do you -- are there any training scenarios that train to failure,
3 you know, where you can basically -- a student can go through and
4 see what it looks like when things go bad so that they can --

5 A. No.

6 Q. -- better understand that? Okay. You --

7 MR. SHIARELLA: Kat, do you mean in synthetic training,
8 simulator training?

9 DR. WILSON: Yes.

10 MR. SHIARELLA: Okay.

11 DR. WILSON: Yes, only in simulator training.

12 BY DR. WILSON:

13 Q. The -- you mentioned that this pilot had had some training
14 issues before, and so you were doing some retraining with him.
15 Are there notes that are attached to that that give any additional
16 explanation as to what the difficulties were?

17 A. Only if the other instructor put them into the Gemini Portal
18 or wrote them down. And, I never got any of those notes before I
19 had him for a student.

20 Q. Okay. The rating scale, 1 to 4, how often are 4s given?

21 A. Not very often because a 4 would be something that, you know,
22 this guy should be teaching me. I shouldn't be teaching him.

23 Q. And in these -- this training, retraining that you did with
24 him, what if he didn't pass? What would have happened? What if
25 he didn't get a 3?

1 A. If he didn't, if he didn't pass and he wasn't ready to take
2 his checkride, I would go into the training manager and I would
3 have told the training manager, no, he's not getting recommended.
4 And then it would be up to the training manager to figure out,
5 with the client's company what they wanted to do, get more
6 training, another S7 or whatever, but that would be out of my
7 hands. Once I said, no, I'm sorry, you're not ready to take your
8 checkride, I would hand it off to the training manager.

9 Q. And I apologize if you said this. Was he in the left seat or
10 the right seat during the training you had with him?

11 A. When I was doing the observation for his S7, he was in the
12 left seat. The only -- and then he did do some right seat time,
13 and that's where I observed him as pilot not flying.

14 Q. When you're practicing these stalls, is that -- is the pilot
15 doing it only from the left seat or is that also trained from the
16 right seat as well?

17 A. It's from the left seat.

18 Q. Is the left seat always considered the pilot flying in the
19 simulator or do they sometimes do pilot flying from the right
20 seat?

21 A. Pilot flying is the left seat while we're training in the
22 simulator unless the student is required by his training documents
23 to demonstrate right seat flying skills.

24 Q. The pilot's operating manual, the Hawker pilot's operating
25 manual lists out information about stalls, conditions for stalls,

1 techniques for stalls. Is that covered at all in the training?
2 Is that a part of ground training or is it reviewed before you're
3 doing stall training in the simulator?

4 A. I haven't taught Hawker ground school for a while. I'm not
5 remembering whether it's a specific part of it. I know we do talk
6 about it, and then when I'm doing the preflight briefing, before
7 we go into the simulator, we talked about it. Do I bring up the
8 manual and read word-for-word what the Hawker manual says, not
9 very often.

10 Q. Are there any training scenarios that are conducted in icing
11 conditions?

12 A. The S5 cold weather is, but the stalls are never done in
13 icing conditions.

14 Q. And the altitude where you practice these stalls?

15 A. Again, it would vary. If it's a Part 91 climb, it could
16 start at 700 feet on climb out or it could start just under 1,000
17 feet on approach. The clean straight ahead stalls are usually
18 done at between 10 to 11,000 feet.

19 Q. Thank you for reiterating that. I thought we had talked
20 about it but I didn't have it in my notes. Going back to the
21 notes, instructor notes, are notes required or it's just notes as
22 needed?

23 A. The notes are required for a 1 or a 4.

24 Q. Okay. And are you aware -- CAE has their own curriculum.
25 Did Clay Lacy have a curriculum that they provided or did -- was

1 the training just following, you know, CAE's standard curriculum
2 for the Hawker?

3 A. Looking back, I'm sure Clay Lacy had under training and
4 checking addendum, specifics that we were supposed to do with
5 their students. I could not tell you exactly what they were.

6 Q. And when the training was done, there was always two pilots?

7 A. Yes, it's a two pilot aircraft. So there's always two
8 pilots, whether it is another student or right seat support crew
9 member.

10 Q. Do you recall during Darrin's training if it was another
11 student or just a right seat support?

12 A. I'm not sure.

13 Q. I think that's all the questions that I have. Thank you,
14 Tony.

15 A. You're welcome.

16 DR. WILSON: Thanks, Shawn.

17 MR. ETCHER: Thanks, Kat.

18 BY MR. ETCHER:

19 Q. All right. You made it through round one. Round two is
20 always quicker. And you've actually helped me fill in a lot of
21 blanks. My brain's still chewing on what you've taught me so far,
22 but I appreciate it. I have a few questions and some of them
23 dovetail off of what Kat was talking. The notes, you have to
24 provide notes if you give 1 or a 4, correct, for a student?

25 A. According to the training and the curriculum, yes. If a 1 or

1 a 4 is graded, the instructor is supposed to note why a 1 or a 4
2 was given.

3 Q. Okay. I can kind of get a 1 because that means they're not
4 doing so good, but why a 4? Is there a reason do you know? Why
5 would you have to make notes on a 4?

6 A. Why was it so exceptional.

7 Q. Okay. Okay. Have you ever given a 4?

8 A. No.

9 Q. Okay. Kat was talking about icing and stalls and you never
10 do them together, and I get that. How does the simulator handle
11 icing? Does it build up, accumulate icing?

12 A. I have the thickness, the ability to go from light to severe
13 icing and if the students don't recognize that they're getting
14 into icing and activate the system, ice will accumulate on the
15 airframe and there will be buffeting in the simulator. That's
16 normally how the simulator tells them that they're building up
17 ice.

18 Q. What indications does a crew have to detect that they're
19 getting icing? Is there an ice detector that gives them an alert,
20 they're just picking up icing on particular parts of the airplane?

21 A. No, they're taught, you know, in any temperature 10 degree C
22 or colder, with visible moisture, there's always the possibility
23 of accumulating ice. In the Hawker, they look at different parts
24 of the windshield, out on the wings, other parts of the airplane
25 that don't normally accumulate ice. And then there is an ice

1 detected light.

2 Q. Where is that ice detector light located in --

3 A. It's on the master warning and caution panel.

4 Q. Okay. So it blinks at them and everything, gives them a
5 color?

6 A. Yes. It lights up bright and then when they acknowledge it,
7 it will go to a normal brightness depending upon where they have
8 that set.

9 Q. Okay. All right. Now, you said that sometimes students will
10 enter icing and no recognize it and turn on the deicing, you know,
11 icing system. Is that something that's not on all the time, the
12 icing --

13 A. It's not. The system in a Hawker, and again, I haven't
14 taught the Hawker in a year, but the TKS system in the Hawker,
15 it's carrying liquid. So it can't be on all the time like a hot
16 wing might be on some other jet simply because there's a finite
17 amount of deicing fluid.

18 Q. Right.

19 A. -- or anti-icing fluid.

20 Q. Okay. All righty. Now, I know you said you've had students,
21 you know, they do not detect it as quick and the simulator will
22 buffet it and all that. Has it ever stalled in the sim? Have you
23 ever witnessed a student completely not detect it and the sim
24 stalls?

25 A. No.

1 Q. Okay. All righty. Now, I should have said this earlier, and
2 I totally forgot. So my apologies. I assumed, but assuming is
3 always bad. Have you ever done any instructing in a Hawker
4 itself, not the sim, but in an actual airplane?

5 A. No, I didn't have any interactions with Hawkers until I
6 started working at CAE.

7 Q. Okay. All right. Have you ever had a pilot not be
8 successful and wash out of the program or be sent home?

9 A. Yes.

10 Q. How often does that occur in your experience?

11 A. You know, I've had two that I've definitely said, no. And
12 their company decided to bring them home. It wasn't that I said
13 you're never going to pass your checkride or anything. It's just
14 they couldn't pass the 7, told the manager, and the manager talked
15 with the company and the company decided, okay, we're going to
16 stop the training and bring them home. But in over 3 years, it's
17 only been 2 that I can recall.

18 Q. Okay. Have you ever passed off a student on an S7 and they
19 go up for their checkride, and they don't quite successfully make
20 it?

21 A. I think I had one, but after talking with the check airman on
22 that one, from the moment he walked into the oral, he was just --
23 checkride-itis we call it. He was just nervous as anything.

24 Q. Okay. All righty. I think this is my last little batch of
25 questions here, and then you'll be done with me. So you can

1 almost breathe a sigh of relief. When you're in a sim session,
2 how do you decide what kind of abnormalities to give a crew? Like
3 you go in for a S7, and it needs, you know, a stall or it needs
4 this or that. Is there a latitude on what you can give for
5 abnormalities or is it pre-scripted for you?

6 A. No, they're -- the S7 is supposed to be recommending the
7 checkride. So the abnormalities that I would give would fall in
8 line with what they're going to get on the checkride. You know,
9 minor problems as distractions during the checkride, display unit
10 failures when they're required for the ACS, flap failures because
11 that's one of the requirements, engine failures because those are
12 required. But, other than the required malfunctions, it would
13 just be minor ones to see whether the distraction can divert their
14 attention from what they're supposed to be doing.

15 Q. Okay. You mentioned flap failures, right. Is that --

16 A. I'm sorry. Say that again.

17 Q. My apologies. I probably didn't annunciate it very well.
18 You mention flap failures that students get trained on, correct?

19 A. That is true. No flap landings. And that is a requirement
20 for the ACS for the checkride.

21 Q. Do you ever train flap asymmetries where one's going out for
22 moving the other or there's dissimilarities on the wings?

23 A. Yes.

24 Q. How does the sim handle that?

25 A. The sim is pretty benign because when they put the flaps to

1 the first setting, one of the flaps will only go down 3 degrees.
2 The other one will stay at 0. So, there's not much roll or
3 difference in the handling characteristics, and then the flaps are
4 frozen. They won't move at all.

5 Q. Okay. Ever have, you know, one flap go a lot further than
6 the other, and more than 3 degrees. I'm talking full versus up.

7 A. Not in the sim. It just won't do it.

8 Q. Okay. All righty. Have you ever had pilots who have flown
9 the Hawker before, come in for recurrent or whatever they're in
10 for, say the simulator is nothing like the airplane or it's not
11 quite like the airplane or it's different? Does that ever come up
12 during some of the training sessions?

13 A. All the time. You know, the pilots will say that the
14 simulator is harder to fly than the airplane and, you know, all
15 the sims that I've trained on, they're right. The simulator is
16 different than the airplane. It's always a little bit harder to
17 fly because it's a little more sensitive probably but once they
18 get used to it, they don't have any problem.

19 Q. Okay. My last question, and you may have to put on your
20 thinking cap a little bit. The Clay Lacy pilots that you have
21 trained, I think you said you did three or four. Forgive me if I
22 got the number wrong.

23 A. As far as I can remember, it would be somewhere in the three
24 to four number, yes.

25 Q. Did you ever recall them saying this simulator is nothing

1 like the airplane? It's -- the airplane's not this docile or the
2 airplane's not this sensitive? Do you ever remember hearing them
3 complain about it?

4 A. Nothing specific. If anything, they would say the brakes are
5 sensitive but that would only be it. Other than that, they didn't
6 complain about the simulator that I can recall.

7 Q. Okay. Well, I appreciate everything you've given me so far.
8 I'm going to see if Kat has any further questions.

9 MR. ETCHER: And Kat.

10 DR. WILSON: Thanks.

11 BY DR. WILSON:

12 Q. I wanted to follow up a little bit more about the CRM
13 evaluation or observations that you do. Tell me what you're
14 looking for from a pilot in regards to CRM.

15 A. When I'm looking at the pilots, I'm looking for interaction
16 between the two of them to where there's a clear plan, especially
17 if something was to go wrong. What do they think the problem is?
18 What are they going to do about it? Under briefings, did they
19 state what they're going to do and then stick to the plan and do
20 what they said? And knowing humans, also if one pilot doesn't
21 understand what the other one wants from them, do they ask? If
22 things are going wrong and the one pilot doesn't think that the
23 procedure that we're going to perform is correct, does he speak up
24 and say, you know, maybe we should look at this other checklist
25 first before we decide to do this? Things like that.

1 Q. Looking at the training records for this pilot, do you do the
2 -- did you ever do the S6 module, not with this pilot
3 specifically, but I'm looking at his CRM ratings on the day he did
4 his S6, and he got a lot of 2s in the CRM realm. I guess what I'm
5 wondering is it something with that sim session? Is that sim
6 session different that makes CRM more challenging? Is it possible
7 that he was paired with another pilot and they just, for whatever
8 reason didn't mesh? Maybe it's an instructor issue. Is there
9 anything that you know about the S6 that could make --

10 A. There's nothing -- no, there's nothing on the S6 that CRM-
11 wise would be more difficult or different from the CRM situational
12 awareness type viewpoint. I can't really read his writing or his
13 certificate. It's just too small, but sometimes pilots that are
14 coming in to train on initial, if they aren't used to a crewed
15 aircraft, sometimes they have a little bit harder time
16 understanding CRM because they're not by themselves in the
17 cockpit.

18 Q. When these pilots comes through, are they paired with another
19 pilot for all of training or will the pilot they're paired with
20 change each sim session?

21 A. Okay. Depending upon the number of people in the class, if
22 there's an even number of people in the class, two pilots will
23 usually go through training together through the whole sim
24 sessions. If it's an odd number, two of them will be paired
25 together, but the third person will end up getting in seat support

1 or another instructor, and they could change quite a bit.

2 Q. In any of these sim sessions, are there any scenarios
3 targeted specifically to observe CRM or are you just observing CRM
4 throughout the entire session?

5 A. CRM is brought to the forefront and they're all from the very
6 first sim period that CRM is one of the things that we're going to
7 be looking at very hard because the ability to communicate in the
8 cockpit with the other pilot is very important. We go through it.
9 We debrief it. When you said this, it could have been handled a
10 little better. So, yeah, we do CRM every single day.

11 Q. Are there -- but are there any scenarios that are woven into
12 specifically trigger a CRM review, something to trip up one of the
13 other pilots to see how they respond or something, you know, where
14 that's the, you know, in this particular case, you're doing
15 stalls. Well, really, no, but in this one we're focusing on CRM.

16 A. No, there's nothing like that but you could look at it that
17 every time they get a malfunction or an emergency, that's going to
18 trigger a CRM event that we can evaluate.

19 Q. Thank you. That's all that I have.

20 BY MR. ETCHER:

21 Q. All right. Well, you made it through. Thank you very much.
22 I don't have any other questions for you other than, you know, you
23 knew we were coming to talk to you today about this event. Is
24 there anything that, when you thought about that and looked
25 through the record like, oh, I bet they're going to ask me about

1 this and we failed to do so because we didn't know about it maybe.
2 Is there anything you can think of that I can't believe they
3 didn't ask me about this, this might really help them?

4 A. No. To be honest with you, I didn't even think about what
5 you might or might not ask me. I just decided that, you know,
6 when we get together, whatever questions you ask, that I will
7 answer to the best of my ability.

8 Q. Okay. Is there anything that you can think of though that,
9 you know, would enlighten us a little bit more that we didn't ask?

10 A. No, sir.

11 Q. All right. Well, with that, let me call this concluded at
12 10:24 local. And again, I appreciate your education for me. So
13 thank you.

14 DR. WILSON: Thank you, Tony.

15 (Whereupon, at 10:24 a.m., the interview was concluded.)
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CERTIFICATE

This is to certify that the attached proceeding before the
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FATAL HAWKER 900XP ACCIDENT
 NEAR WESTWATER, UTAH
 ON FEBRUARY 7, 2024
 Interview of Anthony Mancini

ACCIDENT NO.: WPR24FA083

PLACE: via Microsoft Teams

DATE: September 12, 2024

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.



Kathryn A. Mirfin
Transcriber

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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FATAL HAWKER 900XP ACCIDENT

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NEAR WESTWATER, UTAH

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Accident No.: WPR24FA083

ON FEBRUARY 7, 2024

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Interview of: MICHAEL SPEER, Instructor Pilot
CAE

CAE

Whippany, New Jersey

Thursday,

September 12, 2024

APPEARANCES:

SHAWN ETCHER, Operational Factors Investigator
National Transportation Safety Board

DR. KATHERINE WILSON, Human Performance Investigator
National Transportation Safety Board

RICHARD SHIARELLA, ESQ.
Senior Legal Counsel for CAE

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I N T E R V I E W

(12:58 p.m.)

DR. WILSON: All right. Good afternoon. It is 12:58 Eastern Daylight Time. We are at CAE conducting interviews with regard to the Westwater, Utah, event that occurred on February 7, 2024.

I'm Katherine Wilson. I'm a human performance investigator with the NTSB. I'll have my colleague introduce himself.

MR. ETCHER: Hi. Good afternoon. I'm Shawn Etcher. I'm in operational factors with the NTSB as well.

DR. WILSON: And, what we'd like to do today is record the conversation that we have, and then we will create a transcript which will eventually become a part of our public docket. Is that something you're okay with?

MR. SPEER: Sure.

DR. WILSON: Great. And you are entitled to have a representative with you. Is there someone you would like to have with you in this interview?

MR. SPEER: Well, I don't want my wife. So I guess I'll use this guy.

DR. WILSON: Okay.

MR. SPEER: He'll do fine.

DR. WILSON: And if this guy could introduce himself.

MR. SHIARELLA: Good afternoon. Richard Shiarella, senior legal counsel for CAE.

DR. WILSON: Great. Thank you.

1 MR. SHIARELLA: Thank you.

2 DR. WILSON: And so just to let you know how the process is,
3 Shawn and I will each take turns asking questions. If you don't
4 understand a question, please ask us to clarify.

5 MR. SPEER: Okay.

6 DR. WILSON: If you don't know an answer to a question,
7 saying I don't know or I'll get back to you is also okay.

8 MR. SPEER: Sure.

9 DR. WILSON: We don't want to treat it like an oral or
10 anything.

11 MR. SPEER: Okay.

12 DR. WILSON: But we're just really here to learn from you as
13 much as we can. Any interactions you had with the flight crew and
14 also just how you instruct here at CAE.

15 MR. SPEER: All right.

16 DR. WILSON: And then, once we leave the facility, we will
17 have, like I said, have this transcribed. We'll send the
18 transcript to Richard who can then forward the transcript to you.
19 If you have any clarifications that you want to make --

20 MR. SPEER: Okay.

21 DR. WILSON: -- or additional statements, we can certainly
22 add that to the transcript.

23 MR. SPEER: All right.

24 DR. WILSON: Before we get started, any questions?

25 MR. SPEER: No, I don't think so.

INTERVIEW OF MICHAEL SPEER

BY DR. WILSON:

Q. Well, if you could start by giving us your full name please.

A. Michael Speer.

Q. Can you just spell your last name for me?

A. S-p-e-e-r.

Q. Okay.

A. There's two ways to spell it, and that's the way somebody did it.

Q. And, Michael -- do you go by Mike, Michael.

A. Mike's fine.

Q. Okay. Mike. Is it okay if I call you Mike?

A. Sure.

Q. Mike, what is your title?

A. Simulator instructor and on occasion, check airman for the FAA, changing plastic for people and I think I'm an instructor pilot. So we get involved in, you know, depending on what you've done before and what all else you can do, but you probably have an idea what that means, right.

Q. And you're employed by CAE.

A. Yes.

Q. How long have you been an instructor pilot at CAE?

A. I think it's something like 15 or 17. I'm not -- I'm a little confused about that, but more than 10, less than 20.

MR. SHIARELLA: Years.

1 MR. SPEER: Yeah.

2 BY DR. WILSON:

3 Q. Have you held any other positions here at CAE?

4 A. No, I've not, which is fine. I'm happy doing what I do. I
5 do it with clients, and I enjoy what we do with the clients. And
6 I don't want his job, and I don't want the program manager's job
7 and the guy who runs the place, I flew Hawkers with his dad. So
8 that's why. That's enough. Let him run the building, let him run
9 the legal part, and I'll just have fun with the clients.

10 Q. You brought up flying. What certificates, airman
11 certificates do you have?

12 A. What kind of certificate do I have? I have an ATP I think
13 you call it, and it's got a few airplanes on it.

14 Q. Okay. Do you know what they are?

15 A. Well, it probably says Hawker, and then it also says BAE 125,
16 whatever that is. We call it the Beast down on the corner. And I
17 don't go there. I try to stay away from that one. I don't like
18 it. That's why we call it the Beast. I flew the Gulfstream for
19 maybe 12 or 15 years. So I have more time in the Gulfstream than
20 the Hawker, but I like both of them. The Hawker's a good
21 airplane. And I got some other stuff just from the Air Force. So
22 I did airplanes with 8 engines and 4 engines and so I enjoyed it,
23 20 years with Uncle Sam, 20 years and 6 hours I believe.

24 Q. But who's counting.

25 A. I did one for eight, I guess one or two, moved onto the next

1 base.

2 Q. So it sounds like you've got some good flight hours. About
3 how much total time do you have?

4 A. I don't know. I'd have to go look at my record.

5 Q. All right.

6 A. I'm sure it says 20,000 or something but I don't care.

7 Q. Any idea how much time you have in the Hawker?

8 A. A little over 4,000 I think.

9 Q. Left seat, right seat.

10 A. Um-hum.

11 Q. Both.

12 A. I guess I started in the right seat a little bit. I don't
13 remember that part, but I was with the predecessor to Jet Aviation
14 in the beginning. So I think I started as a PIC right away
15 because back in those days you had to get a checkride from the
16 chair airman for the 135 operator because the simulator couldn't
17 do it all. It's called a C level versus a D level if you know
18 where I'm going with that. So, Jet Aviation bought the company
19 that I worked for originally which was a bunch of big airplanes
20 that some airline guys decided to put together in a program,
21 Teterboro. You've heard that place. So I did that, and then
22 clients would go to other accounts and sometimes pilots did, too.
23 So I ended up in Atlantic and then back to Jet Aviation and then
24 back to Atlantic, and I was the chief pilot at Atlantic in
25 whatever years, and we had seven 700s which is the older Hawker

1 but it's basically the same as a 900. It just has a different
2 serial number. So I did that for a while and managed a bunch of
3 pilots, didn't have to put up with flight attendants, and then
4 when I got into Gulfstreams, then I had a different group, and see
5 I can make fun of it and say, gees, one flight attendant's worth
6 20 pilots for trouble, just to pick on her. I have to keep the
7 score --

8 Q. Right.

9 A. -- in the beginning. So I don't know if that helps you or
10 not, but that's what I did.

11 Q. Great. Thank you. And I don't want to make an assumption,
12 but you are a simulator instructor in the Hawker here at CAE?

13 A. What kind of instructor?

14 MR. SHIARELLA: Hawker?

15 MR. SPEER: Oh, just a -- I'm an instructor in the Hawker.

16 BY DR. WILSON:

17 Q. Yes.

18 A. I do ground school on occasion.

19 Q. Okay.

20 A. And I do checkrides for the recurrent guys coming through,
21 proficiency checks, mostly 135, but we've got a few 61 guys. And
22 then I do change of license through DMS for the FAA and so I'm a
23 TCE in that regard with the Hawker and then there's two of us in
24 the Hawker, Jost and I that are the PEs, trying to keep the rest
25 of the guys organized as far as their training and checking, et

1 cetera, which is fine.

2 Q. Tell me about in the Hawker. So we can start with ground
3 school if that's easier. What do you train new pilots coming in
4 regarding stalls?

5 A. Regarding what?

6 Q. Stalls.

7 A. Stalls. What we do as far as stalls is we do a little in
8 performance day which, as you probably imagine, we have -- for
9 initial clients, we've got 8 days of ground school. And on day 1,
10 we do -- I do electrics before they fall asleep because I do it
11 first thing in the morning. That's one that's the most difficult
12 for them to retain, what I want them to retain, by the time they
13 get into the sim. And there's some other things I have, and one,
14 day 6, we do performance. So we talk about the stall on some of
15 the performance charts and things like that. Then when we get
16 into the sim is when we start to give them some stall training.
17 And our objective I think is to have them recognize the stall and
18 don't go there.

19 So, we'll -- on day 1, they'll get a stall on departure, and
20 we talk to them beforehand in the briefing and say here's what we
21 want you to do on this particular sim, and we take off and we do a
22 sim with the guidance of the FMS and by now, they've had some what
23 we call cockpit trainers. We were finding out years ago, and I'm
24 going to say 10 years ago, that on sim 1, we weren't getting a sim
25 off the ground, until about an hour after we got in the box. And

1 so the guy that's in the left seat for the half of the sim, which
2 is 2 hours here and then 2 hours for the other guy, he's losing
3 flying time by about an hour.

4 So we created, and this is with one of our guys that was the
5 training manager. Now, he's moved up in the chain and very smart
6 guy. We created AVT (ph.) cockpit trainers so that we can put
7 them into a training environment in addition to the ground school
8 that they were already having and sometimes, for example, one of
9 our guys right now brings them in at 7 o'clock in the morning, two
10 of them, when he is teaching the ground school from 9 to 5 or 6,
11 and he does an AVT ideally in the sim so that when you push
12 buttons, you see the lights come on and/or off, whatever it is
13 that you're supposed to do. So those AVTs have helped a lot.

14 Now, what we do as far as stalls is starting with the very
15 first sim, we want you to recognize that you're approaching a
16 stall and fix it, try to keep it simple. As soon as you get the
17 indication approaching a stall, we want you to stop that
18 indication. So as soon as you feel the shaker, that's our warning
19 that there's a stall coming, fix it, and there's a procedure to
20 fix it which we go through in the ground school because in the
21 first couple of sims, we're pretty basic, what are we going to do
22 today? We have an hour briefing before the sim, and during the
23 sim, depending on which sim it is, what are we going to talk
24 about.

25 And on sim 1, we're going to talk about -- we're going to do

1 some stalls, approaches to stalls. We're going to do some unusual
2 attitudes. We're going to do some steep turns, you know, the
3 drill of what you have to get from A to number 2, B, et cetera, et
4 cetera. So that's what we do. And the cockpit trainer certainly
5 helped to get them ready for the sim because if they haven't
6 practiced it, we know it, and we jokingly tell them that the
7 artwork we give them on day 1, if they don't hang it in their
8 hotel on the walls, we get a call from their maid because it's
9 important.

10 And then we find out -- we can tell as soon as we start
11 giving them an AVT whether the two partners are working at getting
12 ready because now you're going from just learning electric numbers
13 and what valve does what in the hydraulic system, you're going to
14 something different now. We're going to get in and start the
15 motors. We're going to do some checks on the ground. And so we
16 want them to practice that stuff. And the AVTs really help, but
17 we can tell also, if I'm giving somebody an AVT 2 or 3, I know
18 right away whether they've even started working together because
19 that's what it is. The two of them are married for 8 sims. And
20 that's what we try to do is get them working together on day 1.
21 It's pretty simple. It's important, and we know it right away for
22 what it's worth, right.

23 Q. You mentioned if you feel the shaker, that's a warning to fix
24 it.

25 A. Yeah.

1 Q. And Shawn and I, we understand what that means, but there
2 might people who are reading the interview, you know, your
3 transcript who don't know what that means.

4 A. Sure.

5 Q. So when you say fix it, what do you expect the pilot to do in
6 that situation?

7 A. Immediately push the power up and if you push the power up in
8 a jet, it's a little different than if you have propellers. When
9 you push the power up, you're really waking the guy up in the
10 engine room, and you're saying, put some coal on the fire. So a
11 jet engine at least in the Hawker is not quite as responsive as a
12 few of the newer models with more modern fuel control systems and
13 things like that. It takes a little while. So we want them to
14 jam the power up, and we want them to unload the wing which means
15 level the airplane which gives them maximum lift which helps so we
16 can get out of this shaker by letting the airplane come down if
17 you have to. Okay. So that's kind of what we're doing.

18 Q. Okay. Do any students ever go beyond the shaker?

19 A. Occasionally somebody will do it and go past the shaker, and
20 they very quickly get a next step which is the pusher. And if
21 they get that far, then obviously we're going to critique them in
22 the tail end of the simulator, hey, you were turning to get out of
23 the shaker but you didn't help the nose and get the thing leveled
24 while the power was coming up because when you pushed the power
25 lever up, it takes a little while for that speed to start to move.

1 So you've got to unload the wing and get level, help the nose come
2 down if you have to. If you have to lose 1,000 feet, that's what
3 you end up doing. And then the copilot is part of the picture
4 because we want the copilot to tell the pilot what's going on
5 while he's doing it. We do a -- something besides just stalls on
6 -- generally do it when we do it on day 6 which is hot weather day
7 but some guys do it on day -- cold weather day, but we do down
8 drafts on takeoff, microburst.

9 And, of course, we convince them before in the briefing, you
10 don't want to take off when there's thunderstorms around, and you
11 certainly don't want to take off if the tower said, hey, the guy
12 just ahead of you, about 10 minutes ago, reported downdrafts on
13 takeoff and we've got multiple thunderstorms in the area. That's
14 when I go back into the FBO, have cookies and flirt with girls.

15 You got to, you know, you don't go fly, but obviously on that
16 sim session we do that and what they're going to do is they're
17 going to encounter downdrafts and we want them -- we try to teach
18 them, stay on the edge of the shaker, and that means you power up.
19 We just stay on the edge of the shaker, don't change the
20 configuration of the airplane once you're in it, and just stay on
21 that shaker but not sitting there with the shaker going. You pull
22 up until you get your shaker, ease off just a little bit to get
23 maximum performance so the storm doesn't push you into the ground.

24 Occasionally on that sim session, they will as they're trying
25 to stay in the edge of the shaker, they're too close and they'll

1 get a pusher. Well, that's where we would see them get a pusher.
2 We're not trying to have them demonstrate a pusher. We're just
3 trying to stay on the edge of the shaker for what that is.

4 Q. And if a pilot was to get the pusher, what would you expect
5 them to do?

6 A. Do what the pusher's doing, level and push the nose down a
7 little, which is what it's designed to do. We don't try to get
8 people to fly in a stall where you're getting the pusher and stay
9 in there. The way the airplane's designed, the pusher won't come
10 on if you rotate on takeoff for about 6 seconds. If you went
11 roaring down the runway and you rotate it and if you pull it way
12 back, you'll get the shaker by design, but you won't get the
13 pusher right away, but in 6 seconds you will. So theoretically
14 you could get a pusher close to the ground. We don't do that.

15 Q. When you train stalls, do you ever do them in icing
16 conditions?

17 A. No. If you train stalls, you have to do it in a clean
18 situation where you're not running in this airplane, the Hawker,
19 the TKS in icing. We're not taking off climbing through clouds
20 close to the ground with temperatures freezing and doing stalls at
21 the same time. We don't do that.

22 Q. Okay. Do you recall the training you did with either one or
23 both of the accident pilots?

24 A. I don't recall them specifically.

25 Q. Okay.

1 A. And, I guess it's kind of sad but I see guys in recurrent and
2 I see the name on the schedule, and I've seen that name before,
3 but until I see their face, it's a blank with me.

4 Q. Okay.

5 A. And I didn't know when I heard that this accident occurred,
6 one of our guys saw me maybe the day after or 2 days after,
7 whatever, he said -- I guess we were talking about it a little bit
8 and he said, well, you typed that guy in the airplane. I said,
9 oh, okay. I didn't remember the names of the guys. I didn't know
10 who the guys were at the time, but apparently one of the two, and
11 I don't know who was the captain on the flight that day or that
12 takeoff or whatever, but I typed the one guy and then the other
13 guy I apparently gave him a recurrent check in the year '22 but
14 then I didn't see him after that. If I did, I don't recall.

15 Q. So I don't want to make an assumption, do you recall if --
16 did you look at their training records before we're having this
17 conversation?

18 A. I did look at their training records because it was suggested
19 if you want to look at them, you certainly could. And, you know,
20 all of our records, if you know how to get into the computer, you
21 can see all this stuff. There's certain material I guess that's
22 privileged. It's kind of like if I'm doing a checkride on
23 somebody, I know that I'm going to have to identify them and I
24 know I want to see his pilot's license. So I print up his
25 passport or his driver's license because I've got to see something

1 with a picture, and I print up his license front and back because
2 I need to see what it says on the back. And I've been writing to
3 the FAA to say, will you please get whatever those guys are, I
4 think they're the Wright Brothers on the back of the license, will
5 you please take their pictures off of the damn license because I
6 need to see right where the brown hair is on the one of the two
7 what he's typed in, and is he a PIC or SIC or whatever, and it
8 just infuriates me when I have to ask the gentleman for his
9 license, and I -- in my desk upstairs, I have a magnifying glass
10 and I take the license and expand it, and I still sometimes can't
11 see HS125 because maybe there's four type ratings, and the HS125
12 is right where the brown hair is. So next time you talk to
13 whoever runs the FAA, tell them to fix that. Thank you. If you
14 get that done, I'll be a happy camper.

15 MR. SHIARELLA: Quick point of clarification, Kat, when
16 something like this happens, we lock the training records. So I
17 gave, I gave Mike the training records to -- he wouldn't have been
18 able to access them himself.

19 DR. WILSON: I appreciate the clarification. Yeah, and I
20 wasn't trying to assume that anybody was going around some kind of
21 system.

22 MR. SHIARELLA: Yeah.

23 DR. WILSON: It was more did you have a chance to look at the
24 record.

25 MR. SPEER: I did look at the records, and to tell you the

1 truth, there's only four of us in the room, but if you went up and
2 had everybody in the building line up outside, I'm the least
3 computer literate person of the bunch. So I would need help with
4 a lot of things. My records girls sends me notes every morning
5 telling me what I screwed up last night.

6 BY DR. WILSON:

7 Q. Looking at the records, did you -- did anything stand out,
8 anything of note, good or bad?

9 A. No, I didn't. I mean I saw a couple of 1s from what's his
10 face. We've got two Davids. Ross. Ross had given the guy -- the
11 guy that I typed a couple of 1s on S5 or S6 or something, and so
12 he must have done really poorly on that -- whatever that section
13 was, one or two after that. It seemed like it got fixed or
14 whatever. I don't often see 1s and, you know, our rating system,
15 1 to 4, something like that, and I don't give out 4s because then
16 I have to explain it in some computer generated verbiage, and I
17 don't like to -- if I could say why I gave the guy a 4, he knew
18 exactly how to put the cap on that bottle of water. I'm
19 impressed. But I don't give out 4s, and if I do 2s, I just give a
20 guy a 2. If I gave a guy a 1, I would hope that whatever I can to
21 write it down, but maybe this is not just me that does this.

22 If I give somebody 2s, not 3s. 3 is okay. If I give
23 somebody a 2, I call the guy that's giving him the simulator
24 tomorrow, and say, hey, I see you have Fred tomorrow. If you get
25 a chance, look at his record, but I gave him 2s in this, this,

1 this, this and this. And there's a couple of things that I
2 consider more important on a checkride, and one of them is how did
3 the guy do in the missed approach because to me, the missed
4 approach that you do on the checkride is probably of the places
5 that you better do it just right because you're coming down "X"
6 number of feet per minute, and when you get to 200 feet, that's
7 the decision point. And if you don't immediately fix it, you're
8 in the trees very quickly. And so if there's any time when I take
9 my seat and slide it up front where I can focus up here and watch,
10 that's when I do it. The rest of the times I could sit back where
11 I am and I can watch the copilots instruments better than the
12 pilot's sometimes because his shoulder's in the way.

13 But it's interesting, but I do pass on verbally to the guy
14 coming tomorrow, and I think that's good information. I'm not
15 trying to tell him what he needs to do and how he runs his ship
16 when it's his turn, I'm just suggesting, hey, let me know how this
17 works out.

18 Q. So it sounds like, you know, that's Mike-ism, right.
19 Something that you do.

20 A. I just think that if we've -- maybe if we have six Hawker sim
21 guys right now, I would venture to say that there's at least two
22 or three others that call me, and some of them call me after the
23 fact. Say, hey, how did Joe do with you yesterday? I said, he
24 did fine. I noticed that you had put a couple of such and such
25 scores in. I thought he did a fine job. Or, yeah, he was coming

1 along, but I think he still needs some work. So I didn't make the
2 2 or 3, but whatever, if that makes sense.

3 Q. Yep. So what if somebody didn't share some of that knowledge
4 with you or you weren't able to talk to the instructor who had,
5 you know, this pilot on the previous session? Would you review
6 the training record?

7 A. Oh, yeah, I look at the training record before. I am smart
8 enough to know how to do that because I can look at the training.

9 Q. When you are evaluating crew resource management, what are
10 you looking for?

11 A. I'm looking to see if they're talking to each other in so
12 many basic words, but I -- I guess on the -- let's call it the S7,
13 which is the one before the checkride, I said, now, I don't know
14 who's giving you your checkride, but here's a suggestion to you.
15 CRM is one of the biggest things that we're looking for to see if
16 you are functioning as the PIC. And what I mean by that is that
17 the other guy is bolted to the front of the airplane just like
18 you, up front. And so if you're doing something, are you
19 involving him in everything you do? And when you say give me a
20 checklist, that's not the answer. Give me the blank checklist.
21 Give me the engine failure checklist. Give me the hydraulic
22 failure checklist. And then the two of you guys together do it.
23 And I think we work from sim 1 on that to make sure that the CRM
24 is there because CRM was created by the airlines years ago,
25 because everyone was running airplane into hills for no good

1 reason. So the airlines come out and said what are we going to do
2 and some smart people suggested that they create something like
3 that, and they did. And it's stuck in the industry pretty well
4 throughout. Some guys aren't doing enough CRM in my opinion, and
5 we try to instruct them to fix that because it's critical.

6 Q. Does CAE do any training for CRM or are the pilots expected
7 to have had some kind of CRM training before coming to the
8 simulator?

9 A. That's a good question. I don't know that we address CRM
10 specifically in ground school unless you're talking about
11 something that, for example, on ground school day 6, we're not
12 starting to talk about the checklists, the yellow checklist first,
13 and then the red checklist, and we're talking about, hey, this is
14 not something that one guy does. This is something that two guys
15 do. So if you say how do we train maybe CRM, maybe that's one way
16 we start to address it in ground school.

17 Q. I want to switch gears a little bit back to your flying in
18 the Hawker.

19 A. Yeah.

20 Q. Did you ever do a stall check?

21 A. Stall test? You mean --

22 Q. Stall test. Stall check.

23 A. You mean do a stall in the airplane.

24 Q. Sure.

25 A. No.

1 Q. Ever -- do you know anyone who ever did that?

2 A. Yeah, one of our guys who's actually here this week, I'm not
3 too sure where he is today, but he followed me last night in the
4 sim. He's done maybe, according to him, maybe a half a dozen or
5 so. I'm not sure why that he has done a bunch of them, but he
6 has.

7 Q. Okay.

8 MR. SHIARELLA: Is he an instructor?

9 MR. SPEER: He's an instructor. Right now, he's a part-time
10 instructor. He joined CAE about a year after I did whenever that
11 was, and then he has been doing a full-time job flying a Hawker in
12 the Hawker's base, Aspen of all places. So he takes the airplane
13 -- he lives here in Aspen half the time maybe plus New York. So
14 he's taken the family out or taken the wife back to New York,
15 whatever, and so chatting with him just the other night, and I
16 know I think I had a discussion with him and it wasn't based
17 solely on the fact that this accident occurred, but maybe a month
18 or 2 later, he's my computer guru. He comes to my house and helps
19 me fix my damn computer, and he also fixes my TV so I get 6500
20 channels for 80 a year.

21 MR. SHIARELLA: What's his name?

22 MR. SPEER: Sam Larson (ph.). You know Sam.

23 MR. SHIARELLA: Oh, yeah.

24 MR. SPEER: He's now a part-time guy, but I consider him one
25 of the good instructors because he's currently flying the

1 airplane, and I haven't flown any airplane since I think '13 is
2 when I started to take insulin. So, but Sam comes to my house
3 when he's passing through. He has an apartment here in Jersey,
4 and then he's got a family in South Jersey which is the next wife
5 and some kids and all that stuff. So he's here when he's not in
6 Aspen. And when they go to Aspen they part the airplane and come
7 home at which time he either does contract work or works for CAE
8 or tries to help take care of his brother and his two daughters.
9 But he's one of my friends that's also a guy that's done some
10 stalls.

11 BY DR. WILSON:

12 Q. He sounds like he'd be a good person to just get some
13 education on that --

14 A. Yeah.

15 Q. -- after the fact.

16 A. Yeah.

17 Q. I appreciate it.

18 A. Well, you know, and I talked to -- what's your name again?

19 MR. SHIARELLA: Richard.

20 MR. SPEER: Rick.

21 MR. SHIARELLA: Rick.

22 MR. SPEER: Rick was at the table when they were interviewing
23 me to see if I would pass muster to come work at CAE --

24 MR. SHIARELLA: That's right.

25 MR. SPEER: -- 15 years ago or something. But -- where was I

1 going with the story now. Which story was I telling?

2 MR. SHIARELLA: Well, you talking about Larson, Sam.

3 MR. SPEER: Yeah. See what happens after you get over 40.

4 MR. SHIARELLA: I can't remember either.

5 BY DR. WILSON:

6 Q. Yeah. We were talking about stalls and he had done several
7 of them.

8 MR. SHIARELLA: Right.

9 MR. SPEER: Oh, that's where I was going. After I learned
10 this accident had occurred, and I guess I must have caught it on
11 the TV, but I didn't know who was involved or anything like that.
12 I didn't even know there was a maintenance center in Colorado
13 that's so extensive with Hawkers now because I haven't flown
14 Hawkers in a long time. But, I have a good friend who is a Hawker
15 person who's got 25,000 hours in Hawkers that's a test pilot
16 working for a company called Hawker Siddeley and British Aerospace
17 and then he accepted all the airplanes that Net Jets. You've
18 heard of NetJets. He was the acceptance pilot at their request to
19 accept an airplane after it came over here and they finished
20 fixing it for their device.

21 So I called him after the accident just to say, hey, tell me
22 a little bit about what do you do on a stall and is there a
23 procedure? And I don't remember everything he said but he
24 basically said, well, yeah, there's a set procedure that
25 apparently these guys developed years ago after their experiences,

1 and they said stalls are done between 16 and 18,000. And, you've
2 got to have at last 6,000 feet below the airplane before you come
3 to rocks or clouds. And if there was something else he said, I
4 don't remember it.

5 But the point that he was making is there is a set criteria
6 to do stalls. And he along with a couple of his cronies from
7 being test pilots for the company that manufacturer the thing, did
8 stalls privately as an individual that you could hire. And you
9 guys probably know that they exist. He's lost his medical maybe a
10 year ago. So he still teaches in the Hawker with Brand X which is
11 the other company, not CAE, but he doesn't do that training any
12 more because he's not licensed now without his medical. But a
13 couple of his cronies who are also close to his age still do that
14 and now that I know what goes on with stalls, I wouldn't touch a
15 stall myself, even if I was a current Hawker pilot unless I said,
16 what's that guy's name? How much you charge a day? Come on down.

17 And what Sam did and also what his cronies do to this day is
18 they'll go up and they will show you a series of stalls and show
19 you hazard that if it starts to tuck a little bit to the right,
20 immediately power up, wings level, down with the nose a little bit
21 to fix the bottom because you don't want to get into it because
22 pretty soon it'll go upside down. Now, I don't know if that's
23 what occurs or not, but I took that step just because I wanted to
24 learn something and that's what I got out of Sam. So if you guys
25 haven't talked to those people, it probably wouldn't hurt, but I

1 don't know. That's your business, not mine. Give you something
2 else to do.

3 BY DR. WILSON:

4 Q. Add it to the to do list.

5 A. Yeah, right.

6 Q. All right. I think you've answered most of my questions.

7 A. Okay.

8 Q. If I didn't mention this before, we do two rounds. Shawn and
9 I will ask our questions, and then usually the second round is
10 just some follow ups.

11 A. Okay.

12 Q. So I'll come back if I've got anything. Do you need to take
13 a break before I turn over to Shawn?

14 A. Nope, I'm fine.

15 Q. Just let us know if, you know, we're running long and you
16 need to stretch your legs or anything.

17 A. I'm surprised my phone didn't interrupt because I take my
18 phone when I go in the sim and put it in my desk, because I don't
19 want it ringing in the sim. But between the phone and other
20 gadget that's not a phone, it talked to my body, I just throw them
21 away when I don't want to interrupt a client. They've got enough
22 on their mind.

23 MR. ETCHER: Okay. Kat, I appreciate it.

24 BY MR. ETCHER:

25 Q. You've helped a lot so far. So I do appreciate the

1 experience you have. It helps me learn.

2 A. Okay.

3 Q. So I appreciate that. I have some follow-up questions to
4 some of Kat's.

5 A. Sure.

6 Q. And one thing I was kind of curious, since we're talking a
7 little bit about the stalls and the stall tests and the checks and
8 all that. When you teach stalls in the sim, do you do them with
9 the autopilot on or off?

10 A. You have to have the autopilot off.

11 Q. Do you ever show them a stall with the autopilot on?

12 A. No, don't do it. And basically what I do and if I do --
13 let's say I do two of the three on one sim session and the next
14 one I'll do two of the three using the third one, you know, every
15 time I say now we're going to descend to 3,000 feet, and I want
16 you to open the speed brakes and dive to 3, give me your best way
17 down. So they're showing me they know how to get up to 249 knots,
18 dive and keep the speed brakes open and I tell them, now I want
19 you to level at 3,000 on the flight director, leave the speed
20 brake out, leave the power in idle but make sure the autopilot's
21 off because -- and my statement is always the same. Because we
22 don't do stalls in the airplane or in the sim on the autopilot.
23 So we kind of make that as a point. My last sentence I guess.

24 Q. Okay. So, in real life, if a crew's flying along, and they
25 get distracted and they stall, most crews in flight, they turn the

1 autopilot on, right? You know, they're not going to hand fly a
2 normal flight.

3 A. Yeah. Yeah, let's say they're cruising and I could care less
4 whether it's 10,000 or 35,000, if they didn't put the power where
5 it's supposed to be, we don't have a lot of throttles in this
6 airplane. So if they don't properly keep the airspeed where it's
7 supposed to be, it's feasible that the airplane is going to shake
8 and stall at a given altitude. What's the first thing that
9 happens? The autopilot gets disconnected whether they want to or
10 not. The autopilot is by design says I'm not allowed to do this.
11 And that's a good idea. I've had guys on the circle, and you know
12 what I mean by -- now, we're down to 700 feet, 600 feet, and we're
13 circling to land at Kennedy. And, okay. Maybe their mind is too
14 concerned about I'm turning right and starting to clock because
15 we're doing this circle that we've been taught to do which drives
16 me crazy. But, when they turn to -- about a 70 degree turn, onto
17 this downwind, they get a shaker. I'm getting a shaker at 650
18 feet above the ground. I don't like that. They're not paying
19 attention to the speed. Who's in charge of the speed? What are
20 you doing, copilot, in a nice fashion, I mean a learning, but
21 somebody's got to be watching the airspeed.

22 Q. So, if the crew's in flight --

23 A. Yeah.

24 Q. -- have the autopilot on and they're distracted, whatever,
25 and they get an inadvertent stall, well, the autopilot's going to

1 kick off, but does it give them more of a handful when the
2 autopilot kicks off that they don't necessarily experience during
3 training?

4 A. Well, it's going to give them a handful. It might be that
5 the reason they got it maybe is because the autopilot says I just
6 reached my pitch limit. It's your airplane. An airplane is going
7 to be coming like this. You've got to jam the power in and get it
8 going the other way. And I've seen that in the sim a few times.
9 Not trying to do a stall on autopilot in the sim. It's just that
10 you guys are on the autopilot. Now, generally we don't get in the
11 sim and cruise at 35,000 feet. Lots and lots of sims I know never
12 get above 8,000 by design.

13 Q. Okay.

14 A. We're trying to -- I'm trying to get three or four approaches
15 in. And so I'm not going to waste time going to 35,000, but I do
16 go on hot weather day to a certain altitude. I usually get up to
17 28 to 30 before I push the button to cause the cabin to go poof.
18 Now, we're going to do an immediate descent, et cetera, et cetera.
19 But I don't know if that answers your question or not.

20 Q. It helps. Let me try and clarify it just a little bit.

21 A. Yeah.

22 Q. Let me ask for your opinion.

23 A. Yeah.

24 Q. I want your opinion because you've got lots of experience.
25 So I'm trying to learn from you.

1 A. Okay.

2 Q. When you were flying the airplane, I think back a ways.

3 A. Yeah.

4 Q. But if you were flying along, you got distracted for whatever
5 reason, yeah, you've leveled off at 4,000 feet. I don't care.
6 You pick whatever altitude.

7 A. Yeah.

8 Q. You level off. You get distracted. It's on the autopilot
9 though, and then it -- let's go because it hit a pitch limit.
10 You've got a shaker for whatever reason.

11 A. Yeah.

12 Q. Is that something crews need to be aware of in training, how
13 the airplane looks and feels or do you guy teach that more in the
14 upset prevention recovery training?

15 A. I think we do it more in just the recoveries of approaching a
16 stall, but now I could say in -- if I flew two guys for the whole
17 6 practice sims, not counting the one that some people take before
18 their checkride. Some people take it after the checkride. What
19 we call the LOFT and you're familiar with that I think. But, I
20 never get up to 35,000 and cruise. The only time I get above 10
21 probably with those same two guys for the whole training session
22 for them which is very seldom that we do all of them. In fact, I
23 can't imagine the last time somebody done all six of them.

24 But, if we did all of those, the only time I'm going to have
25 them above 10,000 is on hot weather day, and that's where I first

1 do downdrafts on takeoff, and then I do a problem as we're
2 climbing out, I want them to go around a thunderstorm. I put a
3 thunderstorm in front to see if they learned because they've never
4 been in a jet airplane, they might want to know that we don't get
5 close to thunderstorms. So there's a thunderstorm. What are you
6 going to do? Turn upwind, you know, but you don't need to hear
7 all this. But what I'm saying is that eventually as we're
8 climbing up, I get an HP air overheat. That's a red memory item.
9 I want to see if they know. And then the next one is the door
10 light comes on, and the passenger says in the back of the
11 airplane, hey, by the way, this door is making a lot of noise. Do
12 you want me wiggle that red handle? And that's what I do on that
13 particular day.

14 And then the third thing is, I push a button and they hear a
15 little poof, and that's the cabin going away, and they dive to the
16 ground. But, that's the only time I ever take them above
17 10,000 --

18 Q. Okay.

19 A. -- generally speaking.

20 Q. So in the simulator, do you ever, do you ever show the crews
21 that you train full stall to a pusher?

22 A. No.

23 Q. You never do?

24 A. Not to a pusher.

25 Q. Okay.

1 A. We explain if they get to pusher what to do, and I explain it
2 on the day that I do microburst on takeoff. It might be a few of
3 us do it on arrival or landing, but I do it on takeoff, and I talk
4 to them about it, and I say, hey, look. If you're there, don't
5 get the pusher. Just touch the shaker and ease off, and that's
6 your limit. That's what we're trying to do, but if you get the
7 pusher, that's -- you don't want to -- and maybe we should, change
8 the program, I don't know. That's not my decision to make, but we
9 don't --

10 Q. Okay.

11 A. -- go to the pusher. We try to convince them, don't go
12 there.

13 Q. Okay. In your experience flying the Hawker, I mean 4,000
14 hours that a good amount of time a Hawker.

15 A. Yeah.

16 Q. Did anybody ever teach you, you know, full stall to a pusher
17 ever?

18 A. No. Can't recall it. I did all my initial training in
19 Wilmington, and because Wilmington is an hour and a half drive, I
20 didn't mind that, and I've formed some friendships with a couple
21 of the people at Wilmington. My instructor maybe was a little --
22 I guess you could gently say overweight. They'd be a little out
23 of shape but, you know, these guys here, whatever these things
24 are, he had whatever that disease is, that he would be talking to
25 somebody and fall asleep. And, not once, but numerous times when

1 it was kind of funny, my instructor fell asleep. I said, well, I
2 guess I'll just put it on autopilot and see how long he sleeps.
3 But I like the guys that I trained with down there, and I formed a
4 particular friendship with the one guy that was the manager of the
5 Hawker program along with a couple of others, and then when they
6 got a Gulfstream down there, I traded some training with him in
7 their simulator that I needed to go to Katmandu and to Madeira
8 Island. You've got to be trained to do that, and I gave him six
9 touch and goes in my Gulfstream because he had never been in the
10 airplane. So we swapped. But I never did anything different in
11 my training as far as the stall question I think you're looking
12 at. I've got some other training with -- as it turned out, I must
13 have formed the wrong opinion, if you shut an engine down because
14 I went to final flaps on landing when I shouldn't have, but I was
15 dumb. It didn't dawn on me that the weight was such that we both
16 had to lift our feet coming over the green lights, but you learn
17 something hopefully. But I don't remember any stall training that
18 I received from Brand X that I do different that we do here.

19 Q. Okay.

20 A. I think their program and our program is probably written by
21 the same couple of lawyers. Who knows? Not me, not to make light
22 of it.

23 Q. Okay. So, when you're in a stall in the sim, how does the
24 simulator, airplane, whatever you want to call it, how does it
25 recall to a stall? Is it pretty easy to recover from? Is it a

1 little violent? Does the wings drop? Kind of help me understand
2 from your experience.

3 A. From just getting the shaker, it's very easy to get out of
4 the shaker. And even though our power response is designed to be
5 the same as the airplane, if you get the shaker, which I expect
6 you will do, push the power and roll the wings level. It goes
7 away. And when we do the stalls that we do in the sim, all three
8 of them, departure stall, clean stall and landing stall, fully
9 configured, as soon as you get the shaker, very quickly do the
10 guys get out of that. They push the power up and roll the wings
11 level. In the case of the landing stall, we put them behind a 172
12 heavy, and he's doing 85. He was -- you're catching him, you
13 know.

14 Q. Um-hum.

15 A. And then sooner or later, you're all the way to idle power
16 and, you know, we've told them that's what you're going to end up
17 having to do so that we can show you an approach landing stall.
18 And when it happens, don't push the power up and recapture the
19 glide slope, push the power up and go around. And then we'll take
20 and give you a heading and bring you back around and find out that
21 that Cessna 172 got frightened and then went away or whatever.

22 Q. Okay.

23 A. Okay.

24 Q. When you do those stalls in the sim --

25 A. Um-hum.

1 Q. -- is it VFR, IFR conditions?

2 A. Let me think about that. When I do the departure stall, I
3 have clouds that start at 100 feet and go to 4,000 because I'm
4 doing a low vis takeoff. So, the guy is in the clouds probably
5 until he recovers on the departure stall. On the clean stall, I
6 am CAVOK. I've given you a descent to a certain altitude and I
7 want you to open the speed brakes and do all that, but it's CAVOK
8 and I'm setting the weather for the next event we're going to do
9 afterwards.

10 Q. We're going to move round here just a little bit. I know
11 when you were talking to Kat, you had said you had -- had
12 interaction with the accident pilots at some points?

13 A. Yeah.

14 Q. You don't remember them, and I get that.

15 A. Um-hum.

16 Q. So, I know you looked at the records --

17 A. Yeah.

18 Q. -- the training records. Anything stick out in their
19 training records when you looked at them this past week getting
20 ready to talk to us that you're like, oh?

21 A. No. I think the one set of comments from Ross, there was a
22 couple of 1s and maybe a couple of 2s. I don't remember that. I
23 took one look at it and said enough is enough. But, I didn't see
24 anything that was let's say stall related. I do remember there
25 was some CRM stuff and whatever the rest of it was, I don't

1 remember the detail of it.

2 Q. Okay.

3 A. But, a couple of 1s is surprising because I don't see very
4 many of those in a year's time.

5 Q. All right. Can you think back to his -- either one of their
6 checkrides when you reviewed the notes? Anything that stood out
7 like --

8 A. No, no.

9 Q. -- he was okay. We had to do a little bit, one strike,
10 but --

11 A. If I went back and looked at my specific checkride, I don't
12 know that I saw anything. I -- what I do is I create a piece of
13 paper for every checkride. Every checkride it changes plastic,
14 and this is solely for Mike Speer because he has to deal with a
15 computer. And so between DMS and IACRA, they both drive me crazy,
16 but our grading system for clients also drives me crazy. And it's
17 not because I'm computer dumb, and I'd like to take whoever
18 designed the FAA's IACRA and get them in the room, just him and me
19 or her and me, and hopefully I'll beat the heck out of them.
20 Because I have to have a sheet here with all this information
21 because somebody asked me three or four times, but as far as the
22 grading that you were asking on, either one of these two guys, and
23 I don't even remember their names, but Darrin Towe, I don't
24 remember what I graded on him, and I looked at his records and I
25 didn't see anything of anything that didn't get fixed. And lots

1 of times you'll see on -- we have, let's say -- our training
2 manager and all of us that are sim instructors have an agreement.
3 If there's somebody having a problem, we want to identify it
4 sooner than later because there's a couple of things involved. We
5 might end up giving somebody an extra sim or two sims. Well, we
6 just don't do that. We have to call his person that pays the bill
7 and says, hey, John's having a little problem in the sim. Mary's
8 doing fine but John's having a little problem with this or that.
9 And then as a result, then Mary's also suffering, you know, and
10 sometimes they're two different companies. So whatever, but you
11 understand, if I'm going to recommend a guy needs some work, I've
12 got to do it early, and that's what the program managers have to
13 deal with, and we want to let them know by S2 if there's a
14 problem, if that makes sense.

15 Q. Um-hum.

16 A. We don't often see that, but we're getting an awful lot of no
17 jet time people through here now, a lot more than we got 5 years
18 ago, but that's the nature of the beast now. Airlines are
19 suffering. CAE and Flight Safety both, are helping the airlines
20 training pilots in some special little situation facility that
21 they find a job for somebody. But as far as the clients, if we
22 discover that somebody's not doing too well, we want to do it
23 sooner than later. We don't want to wait until day 5 or 6 to do
24 that. And ordinarily by day 2 of the sim, we're already calling
25 the training manager at home or if he's in the building when we

1 finish the sim. Hey, we need to talk about Fred. He needs a
2 little help, and we've got to do it early.

3 Q. Okay.

4 A. It's best if you -- if you wait until day 5 or 6, why didn't
5 we see that on day 2?

6 Q. Okay.

7 A. Okay.

8 Q. Yeah. So -- and forgive me if Kat asked. How long have you
9 been a check airman in the Hawker?

10 A. It beats me.

11 Q. More than a day?

12 A. Yeah, I'd say 7 or 8 years. I don't know. I can't keep
13 track.

14 Q. During that 7 or 8 years, best you can recall --

15 A. Um-hum.

16 Q. -- how many people have been on a checkride with you that
17 didn't satisfactorily pass?

18 A. Zero.

19 Q. Everybody gets to you --

20 A. I've not had -- I don't know if occasion is the right word.
21 I've not had the time that I had to put a guy down and go through
22 it, and it's because they did the things that I consider
23 important. Now, there's a whole list of things you've got to do.
24 CRM, boy, if the CRM suffers, I see that right away, but I don't
25 see that day 8, S8, and the other thing that I consider vital is I

1 want to see a perfect missed approach because you're only 100 feet
2 above the ground if you're not doing something right. And, the
3 rest of it, there's limits. I don't lose a whole lot of sleep on
4 a steep turn if somebody gets 11 knots above the speed and comes
5 right back, I can do. That means he's managing the situation.
6 But, I haven't had the decision to make that I had to shut (ph.)
7 somebody down. And maybe there's a few others that haven't. I
8 don't know. I have no clue about that, but maybe our system works
9 where they don't get to that point.

10 Now, these guys -- hey, I think maybe when I was getting a
11 checkride, I was nervous because I wouldn't remember it's 212
12 knots and 788 degrees or something. I had forgot all those
13 numbers, but they get nervous on their checkride which is
14 understandable. And, you know, the oral, it takes 2 hours to go
15 through the thing. by the time you spend 10 minutes with
16 somebody, you know if he's been doing his homework because we're
17 talking about somebody getting a type rating in a Hawker. Maybe
18 it's their first type rating. Maybe it's their first jet, but I
19 don't have any problem with saying that I haven't found one that
20 didn't pass muster.

21 Q. Okay. All right. Skipping around a little bit here. I know
22 you worked with these two accident pilots at some point.

23 A. Yeah.

24 Q. How often do you work with those pilots, as Clay Lacy as the
25 operator? How often do you work with those pilots?

1 A. Clay Lacy's guys, I don't see them that much.

2 Q. Okay.

3 A. I think there's -- for some reason, I think we have of us
4 that are check airmen for them. I had a couple of guys in the
5 last 2 months maybe. I don't see Clay Lacy that much.

6 Q. Okay.

7 A. And I don't know how many airplanes they have now. I don't
8 know how many Hawkers they keep track of. The two or three
9 companies that I see a whole bunch of, I don't know the names of
10 the pilots perhaps, but I kind of know what that particular
11 company's doing, and I've invited them through as many connections
12 as I can. I want to go to one of their 750s and I want to take a
13 couple of our kids that haven't been in a Hawker but I want to go
14 see it because there was a gal that was short, shorter than most
15 of the guys, and now a 750 has a baggage compartment instead of
16 fuel compartment. Maybe you're aware of that or not, it doesn't
17 matter, but when you open the equipment bay and get in and do your
18 preflight, there's some door that you have to take down and take
19 out of the airplane so you can do that, and this gal was reporting
20 how she was having trouble doing this, and I clinch every time I
21 see a 750 person. I'd say, hey, if you ever get within 100 miles
22 of here, please text me, and I'll try to be there when you land so
23 as soon as your clients leave, if you would give me 10 minutes to
24 show them that bad door. And when I hear guys say to me, oh,
25 well, we should stop doing preflights in the aft equipment bay. I

1 said, what? Because they have trouble with this damn door. So,
2 not talking out of school. I'm just saying there's a problem, and
3 I want to see the 750 to see what it's all about --

4 Q. Okay.

5 A. -- for what it's worth. I probably went in the wrong
6 direction with whatever your question was. I don't even remember
7 the question.

8 Q. You've given me some information. So I appreciate that.

9 A. Yeah.

10 Q. I know pilots. We all love to complain about something.
11 We've got to complain about something.

12 A. Well, sure.

13 Q. Otherwise, you're not a pilot, right?

14 A. That's right. Yes, sir.

15 Q. But, have you ever heard pilots saying that these simulators,
16 they are so not even close to like the real airplane or they are
17 spot on, just like the real airplane? Have you ever heard that?

18 A. I hear guys complain about a certain thing that they don't
19 think the simulator is quite the way their airplane is and I don't
20 just let that go in this ear and shoot out this one and go out the
21 door. But, I also see an awful lot of guys in a year's time, and
22 they like the sim. And I think if you went and talked to any of
23 the sim instructors or talk to the sim mechanics, a Proline Hawker
24 is the most reliable, you hear me, I'm knocking on wood, in the
25 building. The sim techs like it because it gives us the least

1 amount of problems. There's one or two little things that we're
2 constantly working on, but it's a minor thing. But I think that
3 the clients like the sim because it is pretty realistic. Now,
4 whether or not if you went and did stalls, for example, in an
5 airplane, I have no idea. I can't comment on it, but maybe
6 somebody should try it. Right now we don't do it. Maybe there's
7 a reason we don't. I don't know what that reason is. Didn't ask
8 me for the reason. Should we?

9 Q. Have you ever had a client come in and ask you to do, you
10 know, you're teaching the pilot whatever, and they're like, hey,
11 my company wants to do full stalls. I want to get to the pusher.
12 Have you ever had anybody do that?

13 A. I can't say that I have. I don't know that.

14 Q. That's okay. I don't know works fine. It's all good.

15 A. I know.

16 Q. All right. Let's talk weight and balance for just a minute.

17 A. Um-hum.

18 Q. You flew this airplane a lot.

19 A. Um-hum.

20 Q. How was the -- how forgiving was the envelope for the weight
21 and balance? If there's two pilots and some fuel, is it more
22 forward? If you have two pilots, the fuel and passengers, is it
23 too far aft? Is it almost -- in your experience and I'm asking --

24 A. Yeah.

25 Q. -- you for your opinion here.

1 A. Well, it's interesting. If you ask me what the limits are, I
2 take and draw the shape of the limit, and I do that on one of the
3 days when we're talking about something and it has to do with some
4 entirely different subject than stall, but I put them into a
5 situation where they've got a full load of fuel, and they're way
6 over here in this, and I draw the CG just on the chalk -- on the
7 board. And I say, now, what happens if you can't open the valve
8 to bring fuel out of the ventral tank? Can you guys explain that
9 to me? And they said, well, you're burning fuel. So you're going
10 to come down here like this and you go out of limits. I said,
11 what kind of limits? Well, you're too far aft. How could you fix
12 that because you still have to get on the ground and land, and
13 you're going to be too far in the aft end. You don't fly the
14 airplane out of limits.

15 So how could we do that? Well, we could put the heaviest
16 passenger in the jump seat if you happen have the jump seat on the
17 airplane, and we could move all of the bags that maybe we're
18 storing them in the lav (ph.) because we don't have a place to
19 adequately secure all the golf clubs. So we've got them all in
20 the lav or whatever. Move all that stuff up front because you
21 have to get the airplane back in CG in flight. And that's the
22 only way to do is to move the heaviest passenger. You look like
23 -- I'd like to have you ride up front. You don't explain to the
24 passengers your problem. You just say, hey, come on up front.
25 I'll give you a front row seat, stuff like that. But, the CG we

1 show it on day 5 I believe where we get into weight and balance
2 and we get into some other performance stuff, and that's where we
3 dig into those charts. So.

4 Q. Okay.

5 A. That's all we do.

6 Q. So have you ever in the sim or whether it be a real airplane,
7 an aft CG or a forward CG that you can recall?

8 A. Yeah, I did one time. Somebody wanted me to fly as a third
9 pilot, taking a Hawker across the ocean, and I had never done
10 that. So, one of those companies called me, said, hey, could you
11 do this? I said, sure. So we were picking up three senior golf
12 pros and two respective wives and all of their junk plus me
13 because we only had two seats up front. So, it was kind of
14 interesting because there was two guys that had never been out of
15 the contiguous United States except to go down into the Caribbean.
16 So they were going across the Atlantic, making position, report
17 all that kind of preparation stuff. So I took them over to
18 Scotland, and then I came home and then I went back 2 weeks later
19 to bring them back because these three senior PGA guys were doing
20 the Ireland-Scotland tour for a week and a half or whatever. It
21 was kind of interesting for the pilots because they had never done
22 that kind of stuff, and there's a lot of guys in Hawkers that
23 never go other than the Caribbean and Mexico and Canada. That's
24 about it. But, I don't remember what the question was but --

25 MR. SHIARELLA: So have you ever flown out of CG? Have you

1 ever flown a Hawker --

2 BY MR. ETCHER:

3 Q. Well, not even out of CG. Just --

4 A. Well, as a result of that trip, we had a lot of weight in
5 front of the airplane. In other words, they had two wives, three
6 golfers. That's five up front plus me and then we had extra bags
7 up there strapped down on the couch because we had no room except
8 in the coat closet and in the lav. And we tried to keep the lav
9 open. Professional golfer's golf bags are that big around,
10 whatever, but it was a forward CG.

11 Q. So how's the airplane handle with a forward CG?

12 A. It seemed fine.

13 Q. Yeah. Okay.

14 A. And I wasn't in the seat much, but I was sitting in the jump
15 seat a lot with them, just watching what -- how they were
16 learning, to position report the aircraft and all that stuff.
17 But, the airplane seems fine within its range. It's perfectly
18 fine.

19 Q. Have you ever in the sim done stalls with a CG on the forward
20 end or the aft end of the envelope?

21 A. I can't say as that we do that specifically all the way
22 forward or aft.

23 Q. Okay.

24 A. Maybe one or two of the guys do. I do my stall series pretty
25 much under 10,000 and I start off with 5,000 pounds of fuel. So,

1 you know, you have the whole range of what you can do with the
2 airplane at that point.

3 Q. Okay.

4 A. All right.

5 Q. Um-hum. I think you've given me a little bit to chew on here
6 for a little bit. So, I'm going to pass it back to Kat --

7 A. Um-hum.

8 Q. -- for round two. I appreciate it. I may have a few more.
9 I'll let my brain percolate just a little bit.

10 A. Sure.

11 Q. But I appreciate it.

12 A. All right.

13 MR. ETCHER: Kat.

14 DR. WILSON: It'll be speedy because you asked -- I only had
15 a few and you asked half of them. So.

16 MR. ETCHER: Ask more.

17 BY DR. WILSON:

18 Q. Is there anything when you think about the training that
19 either you wish or you hear pilots coming out wish that they had
20 more time to train on?

21 A. Any time to train.

22 Q. Sure. Yeah.

23 A. Well, one of the things I guess is the guys like to take the
24 airplane to certain airports because that's where they go
25 regularly. I've been trying to do my cold weather in the Chicago

1 area because a bunch of my clients, three of the companies that I
2 see a lot of their checkrides and a lot of the training, operate
3 out there. And they're doing the circling approach inside Chicago
4 O'Hare's airspace. This is O'Hare airspace, and they're coming
5 down over here and doing a circle at this little airport, and I
6 tried to get the airport model so that then I could get the FAA to
7 approve me taking them there on my cold weather day. Then I was
8 going to go over to Midway, because you have to justify for good
9 reason everything that you do on a given sim session.

10 And we don't all do the same identical things. If there's 10
11 of us, there's lots of things that 2 or 3 guys like to fly out of
12 some place out in the Midwest. I happen to like Phoenix to do so,
13 and on a hot weather day, but I wanted to do this cold weather
14 thing, and the guys, a couple different guys have asked
15 specifically if we can do that. And I tried to get the program
16 manager to get it done, and it didn't happen. I'm not blaming the
17 program manager. I'm not blaming the sim techs and their
18 capability to make that airport model, because if it's in --
19 somewhere up in the cloud, I think we could reach and bring that
20 airport down but there's whatever requirements to do that. So
21 that's one that I know specifically clients have asked to do.

22 Sometimes guys want to go do Aspen because they regularly go
23 there. Some guys want to do Telluride, heaven forbid, and we've
24 done that because they're model airports. I don't know if that
25 explains it. If there's something else that they've asked me to

1 do, I don't recall what it is specifically.

2 Q. Regarding the airports that are used, do you have a say in
3 that? Can you pick whatever airport you want or does the AE have
4 specific airports --

5 A. CAE has model airports that we do. The checkride profile is
6 either done -- it used to be at Farmingdale. I don't like
7 Farmingdale. I've been there in a Gulfstream, and it's just a zoo
8 because of the training service up there. But, we're now able to
9 do everything right at Kennedy, and we're getting ready to approve
10 -- what's that company again? FAA, once they approve us doing the
11 VOR again, we're going to circle at Kennedy on the VOR instead of
12 the localizer. But, pretty much -- not that many airports that we
13 go to.

14 MR. SHIARELLA: So there's a different in the airports that
15 you're authorized to use for checkride --

16 MR. SPEER: Um-hum.

17 MR. SHIARELLA: -- versus a training session.

18 MR. SPEER: That's a true statement, yes. We can take off at
19 Kennedy and we can go do an RNAV approach at a model airport like
20 LaGuardia, for example, and then I come back to Kennedy, and I do
21 everything right at Kennedy to include this localizer circle and
22 then a couple of ILS approaches, et cetera. I'm happy with it.
23 We're not doing the Farmingdale thing now, and I think on training
24 we're starting to try to do this VOR approach to circle because I
25 think we sent our \$50 coupon into the FAA to say please approve

1 this. And whenever it gets approved, it's done and we can do it.

2 But I don't know if I answered your question.

3 BY DR. WILSON:

4 Q. As an instructor, how often do you go through training?

5 A. How often do I do what?

6 Q. Go through training.

7 A. How often do I go through training? I guess once a year I
8 have to demonstrate that I can teach ground school, day 1 or day 3
9 or whatever. And then somebody watches me in the simulator and
10 says, hey, he's doing okay on S2 or S4 or S5. So I have to
11 demonstrate the sim and what do you call it? Ground school and
12 sim day and then I also have to demonstrate to Joe Mondone (ph.)
13 that I know how to do a checkride to change plastic because once a
14 year minimum he comes and watches me, and he and I have been
15 together probably three times in the last year because I had to do
16 a checkride for somebody when we had our Orlando guy up here to
17 get his PE certified. So he had to sit and watch me do this
18 checkride, and Joe had to watch him do that, watch him watch me
19 which is what you guys do understandably. But that's the way I
20 get my training once a year just like everybody else does.

21 Q. And is there anything in addition to that, that CAE does to
22 make sure that instructors are training the same way, that there's
23 standardization across instructors?

24 A. I think so because we have -- I don't know what the word is,
25 where we go onto a computer. I have to come in the building. So

1 in case I can't figure it out, I've got -- my records girl comes
2 up and says, here, Mike, click here, and now all you have to do is
3 check in and keep your speaker on and your microphone on because
4 we do a lot of in-house training, and I don't know how many hours
5 of it that we have to do every year to fill certain requirements,
6 whether they're FAA driven or they're CAE driven because we've
7 said to everybody that this is the way our instructors are
8 trained. But that's done.

9 Q. Okay.

10 A. Virtual training I think is what it's called. Don't ask me
11 what virtual means. I have no clue.

12 Q. Thank you.

13 DR. WILSON: Shawn, did I give you enough time.

14 MR. ETCHER: My brain percolated for just a few minutes.
15 I've got a couple of questions, and that's about it.

16 DR. WILSON: Okay. Good.

17 BY MR. ETCHER:

18 Q. Kind of back to your experiences as an instructor.

19 A. Um-hum.

20 Q. On your grading scale of 1 to 4, how many 1s have you given
21 to pilots?

22 A. No idea.

23 Q. Have you given -- let me rephrase that. That was a bad
24 question. Have you given 1s to pilots?

25 A. I don't know if I've given 1 or 10 or zero. I really don't

1 know about 1s. I've given a bunch of 2s because the guy or girl
2 was not where he or she needed to be, and I have to do that. I
3 don't have to do that, but I have to do that. And then it's like
4 I said earlier. I call somebody and say, hey, and it could be I
5 could call the program manager because, hey, it's S2, he really or
6 she should really be better than this, and we're identifying
7 those, and sometimes when you get that, you end up with 6 or 12
8 2's because -- and maybe 1 or 2 of them could be 1s. I don't
9 know. I don't lose sleep over 1 versus 2 at that stage of the
10 game.

11 Q. Okay.

12 A. If that makes sense.

13 Q. Okay. No, I appreciate that. I think it's my last question.
14 It might be a little batch of questions. We'll see how it works,
15 but have you ever trained, given, saw an inadvertent stick pusher
16 in the sim? Like the stick pusher malfunctions and starts pushing
17 forward. They did something and within a secondary stall and got
18 the pusher immediately or, you know, I'm sure there's endless
19 potentials, but have you ever seen that?

20 A. Maybe it's happened, but I don't recall it as a specific, oh,
21 I remember one. Yeah, I don't.

22 Q. Okay. Is there a procedure available? And it's not a
23 checkride. I'm just trying to learn here.

24 A. Yeah, yeah.

25 Q. If somebody would get -- if you would get an inadvertent

1 stick pusher flying, is there a procedure to deal with that that
2 you can recall?

3 A. I don't know that there's a specific procedure that we have
4 let's say in our training manual, page 17, but if you get a
5 pusher, we certainly want to see you fix that, no different than
6 if you get a shaker. If you get a pusher, you probably stayed in
7 the shaker because that's the way the system's designed. If you
8 sit there in the shaker, eventually it's going to give you a
9 pusher. But, if it's occurred, I don't remember it specifically.

10 Q. Okay.

11 A. It sure could happen though, very easily.

12 Q. Let's say as a pilot, you're out flying with me. Sorry in
13 advance for that.

14 A. Um-hum.

15 Q. You're out flying with me, and we get an inadvertent pusher.
16 Who knows why we got one, but we got one.

17 A. Um-hum.

18 Q. Is there a button I can push on the yoke to stop the plane,
19 to stop the yoke from pushing me over or is there any way I can
20 override a bad pusher?

21 A. No, not to my knowledge. I mean you're going to hit the
22 autopilot off, but it should have gone off anyway.

23 Q. Right.

24 A. And so if it stays in the pusher, I don't know that there's a
25 malfunction in the sim that would stick there, a malfunction of

1 the sim, not a malfunction I put in the sim, but a malfunction of
2 the sim, if somebody held it until they got a pusher, and it stays
3 in a pusher. I haven't encountered it. Somebody got the pusher
4 for a second. I was already hoping that they did this and they
5 did that and leveled the wings to fix the situation.

6 Q. And pushers are just like everything. They're mechanical.

7 A. Yeah.

8 Q. They can break.

9 A. Sure.

10 Q. And if it would break in the middle of flying, is there a way
11 a crew -- and I know you've got lots of hours in the plane, is
12 there a way to override that pusher?

13 A. Just override? All you could do is turn the autopilot off
14 and try to get the power up and push the nose down to get away
15 from the effect of the pusher.

16 Q. Okay.

17 A. And then there's not else, if there's a circuit breaker for a
18 pusher, I have no idea that it even exists.

19 Q. Okay. So it's nothing you would teach here either, right.

20 A. Nope. And I know certain circuit breakers because I know
21 where they are, and I know where they are because they're part of
22 a checklist that I wanted on the first time that it occurs on S2,
23 I want to show it to you. And the copilot can't see it. The
24 captain turns this way, here's the circuit breaker you pull if you
25 have a pitot heat failure, for example. I want to show you where

1 it is. There's one circuit breaker on that whole big panel in the
2 sim that's yellow. Why is it yellow? Because it's important.
3 Runaway trim, that's kind of important. Hold the airplane,
4 copilot, can you grab ahold of this wheel because I need to pull
5 the circuit breaker and I can't do it until you hold this wheel.
6 Now, you hold the trim wheel. You got to jump. You got it. It's
7 only going to take me a second. I reach back there. Oh, there's
8 the yellow circuit breaker. I can see it without my flashlight.
9 Stuff like that, but I don't know if that leads you somewhere.

10 Q. Just little things that I have in my brain.

11 A. Sure.

12 Q. So I appreciate you educating me on that, and I think you've
13 answered all my questions. So thank you very much.

14 MR. ETCHER: Kat.

15 MR. SPEER: She's going to have more questions.

16 BY DR. WILSON:

17 Q. Well, I actually just have one that popped into my head. Is
18 there any other visual indication to a pilot that they're
19 stalling? I mean obviously watching airspeed, watching pitch, you
20 know, I mean there's the normal instrument scan that they can be
21 doing, the stick shaker. Is there any other warnings, alerts,
22 anything that --

23 A. No, there's nothing specific, and maybe the reason -- if
24 there is, I don't know it. Maybe the reason is when that shaker
25 goes off, that's to wake you up. You could both be snoring, sound

1 asleep, but if that shaker goes off, just the shaker alone going
2 off, immediately brings you awake, and if there is something
3 somewhere buried in there that I don't know about, I don't know
4 about it.

5 Q. I hadn't heard about there being anything --

6 A. Yeah.

7 Q. -- but I'm just making sure that there's nothing else to
8 alert a pilot that something is amiss.

9 A. All right.

10 Q. Well, we asked you a lot of questions. Is there anything
11 that we didn't ask you about that you were hoping we would ask you
12 about?

13 A. No, but I wanted to ask you a question because it bothers me
14 that this event occurred and you guys are in the business of
15 trying to find out why and fix it. And that's easy said, but
16 tough to do. But, this thing occurred. Is there something that
17 in your investigation which suggests that we do some training in a
18 different fashion? And you don't have to answer the question, but
19 if there's something that we aren't doing, whether it's us or
20 Flight Safety or -- and I'll bet Flight Safety and CAE are doing
21 the same damn things on their simulators, but maybe the other guy
22 does something a little different, and I might like to know that
23 if you understand what I'm saying. I'm not looking for -- oh,
24 this works. Oh, whatever because I think we did our job, and I
25 think we continue to do our job, but if there's something that

1 this accident points out, and I hope when accidents do occur,
2 every time one occurs, we learn something. It's just like if you
3 catch your finger in the door when you slam it, I hope you don't
4 ever do that again.

5 Q. Yeah.

6 A. But I hear all these grandkids and in-laws and outlaws that
7 have stuck their hand in the door and slammed it on. Why didn't
8 they learn, you know what I'm saying. So I don't know. I would
9 be interested down the road, if somebody could say, hey, there's
10 being a change being implemented in the program or whatever.

11 Q. Yeah. So we have a couple of different ways that we can go
12 about doing that. One would be we could release an urgent safety
13 recommendation if we had learned something --

14 A. Sure.

15 Q. -- about, and it couldn't wait for the final report to come
16 out.

17 A. Yeah.

18 Q. We have the other option of at the final report phase, making
19 recommendations. There's other, you know, sort of intermediate
20 phases where if we felt that CAE could maybe do something but we
21 didn't want to go the full recommendation route, we could have a
22 conversation --

23 A. Yeah.

24 Q. -- and say, hey, have you guys thought about maybe making
25 some changes to your training and including this and, you know, it

1 would be on CAE to then say, oh, yeah, that's a great idea and,
2 you know, that could be a safety accomplishment on their side --

3 A. Yeah.

4 Q. -- of taking that step. So.

5 A. If something gets changed in our procedure, whether it's for
6 the Hawker or whether it's for the Hawker and the Gulfstream and
7 the Falcon and the Challenger and all that other, unfortunately
8 the way I see this thing happened, it takes a while, just like
9 everything does. And, if somebody in the process said, boy, this
10 really needs to be done and then they are doing it over in Brand
11 X, I could say maybe they are, you know, but I'd like to see it
12 fixed if it needs fixed. And I don't know that it needs fixing
13 because I don't know -- I did not read any NTSB report of what
14 actually happened. All I know is one of the guys told me that the
15 Hawker did crash. Yeah, and, oh, by the way, you trained the guy
16 what's his name. But, if there's something to be learned from
17 that, that we're not doing right, whisper in my ear that you guys
18 should be doing a little of this or not. Maybe we should sit in
19 the pusher. I don't know. That's not my job. I'm not trying to
20 deny what my job is. I'm just trying to say if it needs fixing,
21 I'd like to fix it, for what it's worth.

22 Q. It's important and I think you can rest assured that if we
23 see something that we think should be at the right time, we'll
24 certainly pass the information along.

25 A. I have a phone and a gadget. You can text me at any point,

1 if there's something that maybe you guys would like to know. I'd
2 love to know when it's all done, and I'm sure you're not going to
3 be done with thing tomorrow. It'll be tomorrow in the year 2020
4 something.

5 Q. Hopefully not too many years on there.

6 A. And I'm not making light of your job because you have a big
7 job doing every time one of these things happens. And I'm sure it
8 creates a schedule for you guys. I can call you, you guys,
9 because that's what I do, and that's -- I'm interested in whatever
10 it takes to make it better.

11 Q. Um-hum.

12 A. Okay.

13 Q. We are, too.

14 A. Okay.

15 DR. WILSON: All right. We will go off the record at 2:34
16 p.m. Thank you.

17 (Whereupon, at 2:34 p.m., the interview was concluded.)
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25

CERTIFICATE

This is to certify that the attached proceeding before the
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FATAL HAWKER 900XP ACCIDENT
NEAR WESTWATER, UTAH
ON FEBRUARY 7, 2024
Interview of Michael Speer

ACCIDENT NO.: WPR24FA083

PLACE: Whippany, New Jersey

DATE: September 12, 2024

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.

A large black rectangular redaction box covering the signature of the transcriber.

Kathryn A. Mirfin
Transcriber

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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FATAL HAWKER 900XP ACCIDENT

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NEAR WESTWATER, UTAH

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ON FEBRUARY 7, 2024

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Interview of: ANDREW E. JOST, Lead Instructor
CAE

CAE

Whippany, New Jersey

Thursday,
September 12, 2024

APPEARANCES:

SHAWN ETCHER, Operational Factors Investigator
National Transportation Safety Board

DR. KATHERINE WILSON, Human Performance Investigator
National Transportation Safety Board

RICHARD SHIARELLA, ESQ.
Senior Legal Counsel for CAE

I N D E X

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I N T E R V I E W

(10:32 a.m.)

MR. ETCHER: All right. Good morning. My name is Shawn Etcher. I'm an operational factors investigator with the NTSB. It is September 12th at 10:32 local time. As I said, I'm an operational factors investigator with the NTSB looking at the Hawker accident that occurred out in Utah back in February of this year. We understand that you had maybe some interactions with one or both pilots. And so we're trying to get a little bit of understanding on that as well as how training is here. That's why -- you're an expert at that. So we want to get from the experts all the information we can.

Thankfully, you don't have to just look at me. I have another colleague here of mine who asks the really good questions. So I'm going to have her introduce herself for the recording.

DR. WILSON: Katherine Wilson. I'm a human performance investigator with the NTSB. I essentially look at the human factors in the accident investigation.

MR. ETCHER: Thank you. Those are the only two of us that will be asking you questions today. So you don't have to worry about somebody coming in or listening on it. So it's just us. It's just a conversation.

MR. JOST: Um-hum.

MR. ETCHER: Like I said, we like to learn everything we can because we're here to help the investigation itself, to figure out

1 how a plane crash occurred. And, we need to look at everything.
2 We appreciate you coming in to educate us. As I always say, our
3 goal here it just to prevent this from happening again. I'd love
4 nothing more than to do myself out of a job because there's no
5 more accidents. I realize that's, we'll say illogical, probably
6 unachievable but, hey, you don't know until you try. So we want
7 to learn everything we can. So I appreciate you coming in here
8 for that.

9 As part of our process, we do record all our interviews. We
10 have the recording sent off to a transcriptionist who transcribes
11 it. We get that transcript back. Kat and I go through it,
12 correct any misspelled words, typos, acronyms, things like that.
13 We never change what you say. We then send that for a
14 recertification from the transcriptionist. Once we get that back,
15 we sent that to your legal counsel. The transcript itself will
16 become part of our public docket as this case gets a little closer
17 to completion. And so we want to make sure you have an
18 opportunity to look at it to make sure everything is correct
19 there. Maybe you need to clarify something. Maybe something
20 didn't transcribe as well as you thought you had said it. So we
21 want to give you that opportunity to clarify it if necessary. If
22 you don't, that's okay, too, but we want to give you that
23 opportunity. So, are you okay with us recording and transcribing?

24 MR. JOST: Yes.

25 MR. ETCHER: All right. I appreciate that.

1 As part of our regulations, you're entitled to have a
2 representative here with you . Do you wish to have one?

3 MR. JOST: Yes.

4 MR. ETCHER: And, Richard, would you be his representative?

5 MR. SHIARELLA: I'd be happy to.

6 MR. ETCHER: All righty. So, Richard, just for the
7 recording, would you please state your name?

8 MR. SHIARELLA: Certainly. Richard Shiarella, senior legal
9 counsel for CAE.

10 MR. ETCHER: Thank you. So, during this interview, I always
11 have a few rules. We're the Government, right. We've got to have
12 rules. But during this interview, if I say something that sounds
13 really good in my mind but doesn't come out my mouth the same, and
14 you don't understand what I'm asking for, just ask for
15 clarification.

16 MR. JOST: Okay.

17 MR. ETCHER: It's not a checkride. It's you're teaching me.
18 So, you know, if anything I'm the one on the checkride. So think
19 of it that way, but I want to learn everything. But if something
20 isn't clear, just ask for clarification. I'll promise you, you
21 give me an answer or you answer a question we have that doesn't
22 make sense to me or I don't quite get it, I'm going to ask for
23 clarification. So it's kind of that two-way street thing. So
24 don't hesitate to ask.

25 If you need a break, just say so. I'll try to ask you

1 through it, but if you need one, whether it's to get a cup of
2 coffee, talk with counsel, whatever, that's fine. Just say so.
3 We'll hit pause. We'll leave the room, you can leave the room,
4 whatever. We'll do whatever you need. Breaks are easy to do.

5 One of my main rules I always like is, you know, if you don't
6 know an answer, I don't know works perfect. You know, sometimes
7 we'll ask for an opinion, and just, you know, we ask for it or you
8 have an opinion you want to give, just make sure that it's an
9 opinion. Because I don't want to read this some months later and
10 be like, woo, is that a policy or is that his opinion. All
11 righty.

12 MR. JOST: Yep.

13 MR. ETCHER: All right. Any questions before we get started?

14 MR. JOST: No.

15 INTERVIEW OF ANDREW E. JOST

16 BY MR. ETCHER:

17 Q. All right. I always try to get all the toughest questions
18 done first, and then we get into the run questions. Okay. So for
19 starters, can you please state your full name and spell your last?

20 A. Okay. It's Andrew Edouard, E-d-o-u-a-r-d, Jost, J-o-s-t.

21 Q. All righty. And what is your job title?

22 A. Lead Instructor on the Hawker 800 XPL.

23 Q. You said lead instructor?

24 A. I'm the lead instructor.

25 Q. So what's a lead instructor? How's that different than an

1 instructor?

2 A. So lead instructor is responsible for overseeing
3 standardization among the fleet. We're an ombudsman of sorts
4 between the line instructors and management, and conduct
5 standardization meetings periodically among our instructors and
6 then that's pretty much it.

7 Q. Okay. So you do all that?

8 A. I do all that.

9 Q. And instruct?

10 A. And instruct ground school, instruct regular simulators and
11 I'm a TCE.

12 Q. And what's a TCE for the record?

13 A. Training center evaluator.

14 Q. All righty. So you give checkrides.

15 A. I give checkrides.

16 Q. I understand. I just want to make sure. I want to
17 understand in a month from now what TCE means. So I appreciate
18 that.

19 A. Um-hum.

20 Q. So considering all your roles, I'm going to assume that you
21 have some airman certificates?

22 A. I do.

23 Q. So what airman certificates and/or ratings do you have?

24 A. I'm rated on the Cessna Citation CE-500, the DC-9 and the MD-
25 80, but that's one rating. The DC-10, 727, 757, 767, 777, the

1 Hawker HS-125 and the DAE-125 which is the Hawker 1000.

2 Q. Okay. Is that all?

3 A. I'm sorry.

4 Q. Is that all?

5 A. That's all. I have a lot of free time.

6 Q. You must have then. All righty.

7 A. Well, I'm not rated in the Air Force jets. So that doesn't

8 count.

9 Q. Yeah. But it should, right?

10 A. It ought to. I mean a B-52 would be a great type rating,

11 wouldn't it?

12 Q. Then I would want one of those. It would. All right. So,

13 I'm going to guess that you have 1 or 2 flight hours in. This is

14 usually the toughest questions. Can you give me a ballpark on

15 your total time?

16 A. Yeah, I'm going to say ballpark 10,000 hours.

17 Q. Okay. I told you, these are the tough questions right off

18 the bat.

19 A. Yeah.

20 Q. How much total time do you have in a Hawker?

21 A. Zero.

22 Q. Zero.

23 A. The actual airplane?

24 Q. Yes.

25 A. Zero.

1 Q. Okay. All righty. And, can you kind of give us cliff notes
2 version, I mean judging by all those type ratings, you've got a
3 very interesting aviation career. So kind of give us a cliff
4 notes version of your aviation career so we kind of understand
5 your background a little better.

6 A. Spent 6 years active duty in the Air Force, retired from the
7 Air National Guard 14 years later. Started a small start up
8 airline called New York Air out of LaGuardia, flew DC-9s and then
9 D-80s there. Went to Continental Airlines in '87, worked my way
10 through Continental and in 2010, Continental merged with United.
11 So almost just short of 36 years with the airlines, 28 of them I
12 was in management. So I was assistant chief pilot in Newark for
13 14 years, chief pilot in Houston for 6 years with Continental, and
14 then I was on a merger team at United and wound up in -- based in
15 Chicago at headquarters, overseeing international flight
16 operations for the flight operations division. I've been a check
17 airman on the DC-9, the MD-80, the 72, the 75, never flew the 76
18 although I'm typed, 777 and the DC-10.

19 Q. Okay. Then after the airlines.

20 A. I'm sorry.

21 Q. Then after the airlines?

22 A. After the airlines, I spent about 6 months playing golf and
23 traveling around, and then wound up working here.

24 Q. All right. How long have you been here?

25 A. Six years.

1 Q. Okay. And your current role as lead instructor, how long has
2 that been?

3 A. Three years.

4 Q. Okay. All right. So in your role, you probably get to see
5 everything that comes in and out I guess. I assume every student
6 pretty much you see somehow some time?

7 A. No. I think the most important part of my job is I'm
8 available for the instructors who have questions about either
9 standardization or a particular item in a syllabus. Now, how
10 would I train that or how would I work this? Or, maybe it's a
11 more general questions about the operation of the simulator or
12 something along those lines.

13 Q. Okay.

14 A. So that's -- I consider that my second most important job,
15 the first one being standardization meetings and try to keep
16 everything in the straight and narrow.

17 Q. How often do you have those meetings?

18 A. I'd like to say periodically because I'd like to have them
19 every quarter, but we're not always able to do that. So I'll say
20 twice a year.

21 Q. Okay. And, your standardization meetings, you know, your
22 standardization, is that just with the instructors here --

23 A. Yes.

24 Q. -- or at any other facility?

25 A. No, only here.

1 Q. Okay. How many instructors do you have that you keep
2 standardized?

3 A. Well, there's eight of us now full time, and then the part
4 time guys, there's about five I think of them.

5 Q. Okay. And that's just in the Hawker?

6 A. That's the Hawker, yeah.

7 Q. Okay. You don't do any other --

8 A. No.

9 Q. Okay. I wasn't sure if you, in your role, if you had to go
10 around to different sims or training sessions.

11 A. Yeah. No, it's -- so part of my duties, I'm also a program
12 evaluator for the Hawker, and the duties of the program evaluator
13 is to give checkrides to the other TCEs or instructors. So
14 demonstrations of instruction, DOIs we will do, but also I check
15 the TCEs as well, it's usually the FAA role but I'm there for them
16 as well.

17 Q. Okay. You bring up the FAA. How often do you see them out
18 here?

19 A. They're out here pretty often. Not necessarily on the Hawker
20 itself but RFTPM (ph.), Joe Mantone (ph.), keeps close tabs with
21 me. We talk probably every 6 weeks or so or sooner if there's
22 something specific, but fortunately it doesn't happen that often.

23 Q. Okay. How's your working relationship with them?

24 A. Excellent. Very good guy, very personable. You can call him
25 any time if you have a question about something. It's a good

1 rapport.

2 Q. Okay. Excellent. All righty. So in your role, I know
3 you're more of a -- you give more checkrides than anything but do
4 you do any Hawker training with pilots coming in?

5 A. I do. I do ground training and I do simulator training.

6 Q. Okay.

7 A. Not as much as checkrides but enough to keep my hand in it --
8 I don't know what the rhyme or reason is when they schedule me for
9 those. I assume just to keep my hand in it.

10 Q. Okay.

11 A. But, yeah, I'll do ground school on occasion and I'll do
12 training simulators but the vast majority is checkrides.

13 Q. Okay. So, how big is your training footprint, your ground
14 school footprint, your sim footprint, for a new hire coming in?
15 I'm saying new hire, you know, brand new, need a type rating into
16 a Hawker.

17 A. Right. So somebody coming brand new into the Hawker would
18 have 8 days of ground school and also 5 what we call AVTs which
19 are audio visual or actually it's applied avionics training. What
20 that is, is the practical hands on application for the paper
21 cockpit so they can practice their flows as well as loading the
22 FMS system. They do that in conjunction with ground school. So
23 in theory when they go start their first simulator, there are
24 seven of those, everything's familiar. You don't waste a lot of
25 time just having them find where all the switches are. They know

1 where everything is. Now, they get to do hands on. So if
2 everything's going according to (indiscernible), we have seven of
3 those simulators. And I might be off a day or 2 on some of that
4 stuff, but that's essentially what they get. They'll get ground
5 school, AVTs almost from day 1, and then when they're done with
6 their ground school, they start simulator.

7 Q. Okay. How many is typically in a ground school class?

8 A. Between six and eight.

9 Q. Okay. Is that a good number in your opinion? In your
10 opinion, I'm asking for an opinion here.

11 A. My opinion is that is a good number, prefer six rather than
12 eight, but it's strictly -- I'm not a big fan of having simulators
13 in the wee hours of the morning or late at night. I just don't
14 think you're as sharp as you could be, but I'd rather it be six,
15 but eight is perfectly manageable.

16 Q. Okay. Great. All righty. Let's kind of get into it just a
17 little bit if you will. How often do you interact with Clay Lacy
18 pilots?

19 A. That's a good question. Not as often as I might think I
20 would, but I'm not sure if I can give you an accurate, you know,
21 once a quarter.

22 Q. Okay.

23 A. Maybe I'll say two to three times a year.

24 Q. Okay.

25 A. But I'm -- that's -- it's not a wag (ph.) but a wild guess.

1 It's an estimate.

2 Q. Okay. And ballpark is good enough for me. I realize you
3 don't jot today I met with this crew.

4 A. Right, right.

5 Q. I get that. I'm just trying to get an idea. Did you
6 interact with the accident crew?

7 A. I did with one of the crew.

8 Q. Which one?

9 A. Berliner.

10 Q. Okay. What was your interaction on him?

11 A. I did teach him a day of recurrent training in ground school,
12 and I did -- this is over I think a 2 year period.

13 Q. Okay.

14 A. So the first time I taught him in ground school. I remember,
15 I remember him in ground school as one of the two guys in the
16 class, and then I did a training simulator. I think it was a
17 review ride before his checkride. Then I gave him a checkride I
18 think last year, last May.

19 Q. Okay.

20 MR. SHIARELLA: Was it last May?

21 MR. JOST: Yeah, I think it was last May.

22 BY MR. ETCHER:

23 Q. So just for clarification, the training review simulator, you
24 did not give and then give the checkride the next day. This was a
25 different training event?

1 A. That's a different training event, right. We can do that
2 legally. You can give, you can give a pilot a review ride and a
3 checkride, but I didn't do that.

4 Q. Okay.

5 A. It was just a review ride, and the following year I gave him
6 a checkride.

7 Q. All right. Now, go back, I know it's been a while, can you
8 recall what your opinion was of his abilities?

9 A. Yeah. I remember Paul.

10 Q. Okay.

11 A. He was very professional. He was -- asked good questions in
12 class, and he performed very well in the simulator. I had zero
13 concerns about Berliner.

14 Q. Okay.

15 A. I didn't know the other pilot.

16 Q. All right. If you had concerns with a pilot -- I know you
17 said you had none with him. So that's okay. But if you had a
18 concern with another pilot, on a checkride, I mean is it -- do you
19 bust them, give them an unsat? Do you retrain, retest and then
20 continue? Kind of help me understand if you have a concern.

21 A. So hopefully we don't get to the point where a pilot has a
22 problem on a checkride, and we've identified it before the
23 checkride. So normally what happens, quotation marks, if you have
24 a pilot who you think is either borderline or probably may not do
25 well, and it's a recurrent training. So he's only got a couple of

1 sims before the check, we'll repeat a simulator and not the
2 checkride. Okay. If it occurs during the checkride, under Part
3 135, we can train a proficiency in up to two tests (ph.). So, you
4 know, that's pretty liberal in my opinion. You know, I'm not
5 necessarily advocating the stringent rules of the test, but for a
6 check, you know, you get too bites of the apple and get retrained,
7 stop the checkride, retrain and then continue the checkride. So
8 that never occurred in Berliner's case. But that's how that would
9 work.

10 So if it occurs during the check and you can retrain and I
11 move on. It's just a quirk. Great. If not, then you have to
12 give them a down or go through retrain.

13 Q. Okay. Now, I know Clay Lacy's not the only operator you guys
14 give checkrides to, but it always seems like, and maybe I'm
15 missing it, but every operator has maybe different procedures --

16 A. Right.

17 Q. -- different whatever you want to call it. How do you guys
18 keep up with, today you have a Clay Lacy pilot.

19 A. Right.

20 Q. And tomorrow you have XYZ Company pilot. How do you keep up
21 with the changes?

22 A. So we have a couple of tools available to us to do that. One
23 is the training center authorization. That's kind of the company
24 notifying CAE, yep, you can train this guy. And, oh, by the way,
25 just as a reminder if you will, this is what our takeoff RVR is

1 and our training guidance. If we want a right seat training, if
2 he's PIC (ph.), indicate that. If it's just training or just
3 checking or both, it would be in that TCA. Any other remarks that
4 they want the instructor to know would be in that TCA.

5 Another example would be if they're doing a hot weather
6 simulator, okay. Just the generic hot weather simulator is Reno,
7 Nevada, for a lot of us or Phoenix, Arizona, but there are
8 companies that say that's all well and good, but we want to go to
9 Aspen. We want you to get us to Aspen, fail and engine, come back
10 in, go missed approach, go over to Eagle, you know, just things
11 like that. So we'll tailor it to that company. So that's one
12 tool we have.

13 The other tool is the training guidance itself which we have
14 a copy of every training manual for every company that we serve,
15 and that's available for every instructor in the computer. So,
16 you go there primarily -- it depends what information you need but
17 primarily you go there to determine if it's a 135 operator, what
18 kind of stalls do they want to do because there's still companies
19 that do maneuver stalls, and there's still companies -- and most
20 companies do scenario stalls. So whatever's in their training
21 manual is what we have to do. So we have to know which one that
22 is. That wouldn't be in the TCA.

23 Okay. Other stuff would be if you have a single client.
24 There's some companies that will line up everything they need to
25 have for either an instrument check or a recurrent check, how many

1 hours in the simulator. Some companies are -- you have to have a
2 minimum of 3 hours in the simulator. Some companies are you have
3 to have a minimum of 2 hours in the simulator. So all -- so if
4 you graded it incorrectly and put 2 hours and the training manual
5 says 3, that's a problem. So you've got to look up for all that
6 stuff, but anything else you want is in their training manual.
7 It's all available to us.

8 Q. How do you keep up that training manual? Do they --

9 A. They maintain it.

10 Q. Oh, they do.

11 A. Yeah.

12 Q. Okay.

13 A. They just upload it to us.

14 Q. Okay.

15 A. So it's all -- it's easy to go in and just do that. It's
16 easy after 6 years, but it's -- there's a lot of stuff you've got
17 to look at before you start with somebody.

18 Q. Okay. All righty. So, for a moment, let's say an operator
19 sent me as their new pilot --

20 A. Um-hum.

21 Q. -- to come here for training in the Hawker. And, you do the
22 short straw, and you're going to teach me. Kind of walk me
23 through in this case maybe you just mentioned stalls. Let's talk
24 about stalls. How do you teach me to do stalls? Do you teach me
25 in the ground school? Do you teach me in the sim? I shouldn't

1 say to do stalls. To recover from stalls.

2 A. Right.

3 Q. Okay.

4 A. Okay. Well, they do cover it in ground schools especially if
5 it's an initial pilot. It's part of the ground school curriculum
6 with the profiles. If I'm teaching you on your first simulator,
7 is that what you're asking?

8 Q. Yeah. Would you kind of walk me through what, you know, I'm
9 new.

10 A. Well, we go through all the profiles in ground school,
11 towards the end of ground school, whether it's an approach, ILS
12 approach, for example, or stalls or takeoff, all those profiles
13 are gone through, and that's it in the ground school. When you
14 come into your probably your second simulator, you're going to
15 start doing stalls. So, we go through the profile again during
16 the briefing before the simulator, and then when we talk about the
17 plan of action for the simulator, we let them know, this is when
18 you're going to do the stalls.

19 So let's say it's a scenario stall. Generally we do it on
20 the first turnout on departure, okay. So you have to brief --
21 you're going to leave your flaps out. Normally a profile calls to
22 retract the flaps at 400 feet. In this case, because we're
23 training, we're going to leave the flaps out. At 15, I'm going to
24 give you a big turn. You're going to start your turn, and we're
25 going to bring the throttles to idle on my call because you don't

1 need to learn how to get into this. You need to learn how to get
2 out of it.

3 And so then we talk about stall recovery and, you know,
4 you're having them hopefully tell you what the stall recovery is
5 but, you know, max thrust, lower the nose, roll out. We talk a
6 little bit about the -- on the Hawker, we have what they call a
7 raz (ph.) line which is a reference line to the AOA, and it's
8 running on your airspeed indicator. So if you're above that green
9 line, you're above .6 in your AOA meter, and you're going to have
10 to look at it. You're flying once you're above that green line.
11 So then once you're above that, so you lower the nose and the
12 power and you accelerate it to above that speed and you can
13 smoothly pitch back up and recover the altitude you lost.

14 The book says it's not all about minimum altitude loss. It's
15 all about the recovery. That's a yes, but answer because, you
16 know, there's minimum. You have to use your judgment on that one.
17 So, it's not like the good old days. They didn't want you to lose
18 any altitude at all, but now you have to use a little bit of
19 judgment because I do this and these guys are like 1500 feet above
20 ground. So I can't really sit there and say, don't worry about
21 how much altitude you lose. So that's something that they have to
22 factor in there, and it's never a problem to recover.

23 Q. Okay. How does the simulator handle the stalls? Is it a
24 violent, you know, shake and crazy or -- let me back up. That was
25 -- I missed two questions before that in my head. When you do

1 stalls, are they full stalls?

2 A. No, we take them through initial buffet, stick shaker.

3 Q. Okay. So you never -- I don't want to say never. That's the
4 word for it, but you never take, you know, do a full stall in any
5 of the training?

6 A. No. We will do a demonstration especially for an initial
7 class of what the -- it's called stick pusher on the airplane.
8 That's up at a simulator high altitude like, I don't know, 30,000
9 feet or so, and we'll have them slow right down and we demonstrate
10 the features of the stall protection system. So, once they get
11 into the caution regime. We do this on autopilot, because we
12 demonstrate that once the stick shaker goes off, your autopilot
13 turns off. So now you've got to fly the airplane, but then we
14 have them wait because if you haven't recovered by then, you're
15 going to get a stick pusher, and that's hydraulically actuated.
16 So it's dramatic and they just descend down, and it's a
17 demonstration. There's no proficiency required for that.

18 Q. Okay. Have you ever had people enter secondary stalls during
19 their recovery?

20 A. And not recover?

21 Q. And during their recovery. I don't know. Do they not
22 recover?

23 A. Is it a second stall or do you get a second stick shaker
24 because you recovered rapidly in the pitch. Yeah, you could call
25 it a secondary initial buffet. So, yeah, that happens.

1 Q. Okay. Have you ever had them not recover?

2 A. No.

3 Q. Okay. All right. How does the simulator handle simulated
4 high altitude stalls versus 1500 foot stalls? Is it the same? Is
5 it more altitude loss? Different airspeed techniques.

6 A. Yeah. The recovery is different because you're at the
7 altitude when we give the demonstration for the stick pusher.
8 Okay. That's -- you're going to some altitude, significant
9 altitude with that. So we don't really -- can't do that at 1500
10 feet and, of course, that would be the worst case scenario, right,
11 but it's not difficult to recover once you understand the
12 aerodynamic involved and the maneuver involved. It's not
13 difficult to recover in the simulator. I've never done it in the
14 airplane or flown the airplane. So I can't compare it, but I
15 think as a training tool, it works pretty good.

16 Q. Okay. During that demonstration, when they get the pusher,
17 on average, ball park, whatever you want to call it, how much
18 altitude do they lose?

19 A. What we want them to do is watch the pusher go down and then
20 we want them to accelerate to a safe speed so that then they can
21 fully recover. So it's not about the minimum loss of altitude
22 that there would be on a normal demonstration. So, I'll say
23 1,000, 1500 feet.

24 Q. Okay. I just wanted to make sure because, you know, my
25 brain, I'm thinking it's, you know, 5, 6, 8, 10,000 feet.

1 A. No, it's not a high dive. It's not an emergency descent.

2 Q. Okay.

3 A. But it might be 2,000 feet, but it's -- once they've
4 recovered and the speed comes back up, it's over. So, you know,
5 2,000 feet would be tops I think.

6 Q. Okay. Okay. Perfect. For the Clay Lacy pilots, and you may
7 not know, so I don't know always works. Do they like scenario-
8 based stalls? Do they like just do the stalls, get them over with
9 and be done?

10 A. Yeah, my recollection is they like scenario stalls.

11 Q. Okay. Now, do you do those 1500, takeoff departure stalls or
12 do you do those at a higher altitude?

13 A. No, we do, we do takeoff departure stalls on departure. So
14 approximately 1500 feet, and then we'll do a clean stall, straight
15 ahead. That's done normally about 5,000 feet after we do steep
16 turns, and then later on, we do a landing configuration stall but
17 it has to be on an approach, a system approach, that has glide
18 path, a glide slope guidance. It used to be just an ILS. Now, we
19 do it on RNAV. That's what we do there. So we'll set them up,
20 vector them for the approach, they'll get fully configured. They
21 fly the approach on glide path and have them pull the power back
22 to about 50 percent, N1, and just keep flying the approach, and
23 the nose gets higher and higher, and then they get a stick shaker,
24 and they have to recover from that, and we vector them back around
25 to do the same approach for a balked (ph.) landing.

1 Q. Okay. All right. Has there ever been any challenges for any
2 pilots that come from Clay Lacy that you can recall?

3 A. No, not from Clay Lacy.

4 Q. From other operators?

5 A. Yeah.

6 Q. What are some of the challenges you've seen? And I don't
7 need operators' names.

8 A. No. They rapidly pitch up. They'll get a secondary stall,
9 and -- or if they delay the flaps, because there's a lot going on
10 for a landing config stall. They have to bring the power up.
11 They have to lower the nose. They have to bring the flaps to 15.
12 They have to accelerate. And once they get above their .6 in the
13 AOA, the flying speed, then they have to pitch up. Then they have
14 to bring the gear up and bring the flaps up. So there's a lot of
15 moving parts going on all at once. And so for somebody who may be
16 new to the airplane, they need to get organized for that and, you
17 know, or they're yanking too much, they get a secondary stall
18 indication or they'll freak at something. I forget, you know,
19 whether it's the gear or the flaps or whatever, but you just train
20 that. I've never had anybody who couldn't perform that to
21 standard.

22 Q. Okay. Now, I know you had said during initial, you guys take
23 them up to high altitude, to the stall, to the buffet, to the
24 pusher, so you can see it. Do you -- on recurrence, do they get
25 exposed to that ever again when they come in for recurrent?

1 A. So some companies ask for it on recurrent, but it's not part
2 of the normal syllabus on recurrent. So normally if they did ask
3 for it -- we always have the option to give it, but if they did
4 ask for it specifically, we would do that on our hot weather
5 simulator, the S16.

6 Q. Okay. Does Clay Lacy ask for that at all?

7 A. Yeah.

8 Q. So for the pilot you did, was that done every recurrent or is
9 every so often? Can you recall looking at his records? I assume
10 you --

11 A. So looking at his records, I saw that he did do it on a hot
12 weather simulator. I want to say -- what year is that?

13 MR. SHIARELLA: '23.

14 MR. JOST: 2023. So I signed his checkride, but he did it on
15 a simulator before.

16 BY MR. ETCHER:

17 Q. Okay.

18 A. I gave him his checkride in 2023. He had a hot weather and
19 it shows in here that he did have a stick pusher demonstration.

20 Q. Okay.

21 A. It's a demonstration. It's not a task that has to be
22 performed at a certain level. It's really just to see if the
23 capability of the airplane.

24 Q. Okay. When you go give checkrides, do you look back through
25 their training history to see where they've had issues?

1 A. Yeah.

2 Q. Why?

3 A. It helps me find where there might be some weak spots so I
4 don't inadvertently miss something because you're back there
5 working an IOS panel. You've got to make sure and you don't want
6 to miss any of the highlights there. So, yeah, I'll look through
7 their grade. I'm going to check the airman log and I think I
8 still need to keep up an even keel and not form any prejudices
9 ahead of time. So -- but if the guys having a problem on an ILS
10 or steep turns or something like that, you know, I want to be
11 particularly aware of that so I don't miss anything.

12 Q. Okay. So, you've been a check airman for -- and you do
13 checkrides often. I'm going to say often. That's my word, sorry,
14 but for several years now.

15 A. Um-hum.

16 Q. How many times have you had somebody not satisfactory, to
17 have success on a checkride with you?

18 A. Well, I had -- I busted a guy on a test a year ago for a type
19 rating. He had an ATP, but he didn't pass his type rating. I'll
20 say maybe in my career here, I've had four people. And, you know,
21 that's only one on an IACRA/ [sic], you know, test. And everyone
22 has been recurrent training.

23 Q. Okay. So, generally speaking, what are some of the reasons
24 that you -- that they busted?

25 A. Single engine missed approach is a challenge. If you don't

1 act rapidly, you're going to lose control of the airplane. And, a
2 specific tolerance heading, and if they don't act quickly while
3 the airplane's flying, you're not flying the airplane. So they'll
4 go, you know, 70, 80, 90 degrees off heading and then they're not
5 programming the FMS the way need to, to get some course guidance
6 and busting an altitude and things like that. And, you know, prop
7 (ph.) checking, you usually train it, but that's big -- that's our
8 big one. So if you really had an issue with that, you can retrain
9 it. They should pass the training, and if they do pass the
10 training, then you recheck it and they do okay. But, where they
11 -- where I learned the problem is where you have to give them the
12 down is if they just can't get through the retraining. You know,
13 they're very rattled. So, it's like -- okay. You need to take a
14 break. We'll fly another day. Just come back the next day and do
15 it in the simulator. Get some training, and then we'll do another
16 check.

17 Q. Okay. Have you ever had to bust any Clay Lacy pilots?

18 A. No. Not that I can recall, but I don't think so.

19 Q. Okay. Have you ever had any of your instructors complain
20 about pilots coming from Clay Lacy, like, oh, man, I can't get
21 this guy to learn this?

22 A. No, I haven't.

23 Q. Is that -- I'm going to ask your opinion. Is that a surprise
24 or is that what you would expect?

25 A. So, I'm not sure if it -- see, I found out that we had one of

1 the guys in this crew, we have a problem with, and one of the
2 other instructors told me that, but I didn't -- and usually I hear
3 that at the time, but I didn't hear it a year ago. Or, if I did,
4 I totally forgot. So, it would be a surprise, but knowing that
5 information, it's not really a surprise now, right. But generally
6 speaking, the Clay Lacy guys are pretty professional in my
7 opinion. They have a pretty decent program that, you know, that
8 they send over to us, we take a look at it, and we're like, it
9 looks pretty good. So that's a general opinion, and I didn't know
10 about the other guy's issues.

11 Q. So what were those issues that they brought to you?

12 A. Well --

13 Q. That you were reminded of or told lately, however you want to
14 word that.

15 A. Well, just the performance on the copilot's review ride. He
16 had to repeat the review ride. And, I can't remember exactly now
17 why he had to repeat the ride, but he repeated the ride.

18 Q. Okay.

19 A. That's indicative of not a very good performance.

20 Q. So do you expect your instructors to tell you ever time
21 somebody has to repeat a sim?

22 A. No, they're not required to, but I generally am told.

23 Q. Okay.

24 A. You know, they'll say, okay, we had a guy had this problem.
25 I did this. What do you think about that? Or, I have -- or

1 they'll call me right away because I'm available to them 24/7.
2 They'll just call me. I'm here. I have this problem. You know,
3 I'm thinking about doing this. What do you think? So, I'm their
4 sounding board.

5 Q. Okay.

6 A. So I'm happy to do that.

7 Q. All right. Now, not just Clay Lacy but all other pilots
8 you've trained, how often do they reach out to you, middle of the
9 night or in the evenings, like --

10 A. The instructors?

11 Q. Yes.

12 A. Oh, I've talked -- I talk to an instructor almost every day.
13 It's not necessarily a major problem, but I talk to instructors
14 every day.

15 Q. Okay. Okay.

16 A. So -- whether it's a scheduling problem, they want an opinion
17 about something, just in general a complaint, something, you know,
18 whatever. I'm -- that's my job.

19 Q. But let me rephrase that. Maybe my question was poor. You
20 don't get called every day about a student having an issue --

21 A. No.

22 Q. -- with an instructor -- an instructor having an issue with a
23 student?

24 A. No.

25 Q. It's administrative, internal work?

1 A. It's all internal stuff, but when something does come up, I'm
2 generally contacted.

3 Q. Okay.

4 A. But I can't say I'm 100 percent contacted, but generally
5 I am.

6 Q. Did they give you a reason why they didn't let you know that
7 the copilot had busted -- or didn't satisfactorily --

8 A. No.

9 Q. -- succeed?

10 A. I didn't ask.

11 Q. Okay. I wasn't sure.

12 A. Yeah.

13 Q. Just more curiosity. I'm trying to figure all this out. So
14 I appreciate it. I know you've been talking to me for a little
15 while. I told you, you'd get sick and tired of talking with me.
16 So, I'm going to pass you off to Kat. She always asks the good
17 questions. But before we do, do you need a break? Need a drink?

18 A. No, I'm good.

19 Q. All right.

20 MR. ETCHER: All righty. So with that, Kat.

21 DR. WILSON: Thanks.

22 BY DR. WILSON:

23 Q. I don't have too many. You mentioned that at the
24 standardization meetings, you're trying to keep everybody on the
25 straight and narrow. Is that -- are you referring to, to make

1 sure that everyone's remaining standardized when they're in the
2 simulators or what are you referring to?

3 A. So, it's a combination of making sure everybody's
4 standardized in the simulators but it's a lot of other things
5 going on, whether it's recordkeeping, how you leave a classroom,
6 how you leave a simulator, how we have to grade, the clients.
7 There's nuances that I already mentioned in the TCA, training
8 center authorization, that, you know, sometimes we see examples of
9 it was obvious that that instructor didn't look at it. So it's a
10 reminder that this is the stuff we have to do. Be sure you keep
11 doing that, and if there's something else significant that comes
12 up, whether it was when we shifted the scenario stalls or the
13 latest airman certification standards, talking about RNAV
14 approaches with a decision altitude or now precision approaches, I
15 want to make sure that everyone's aware of -- the company puts out
16 communications for that, but especially with the part timers, you
17 want to make sure they're aware of what's going on.

18 Q. How does CAE ensure that the instructors are training in a
19 standardized manner?

20 A. So, standardization meetings is one way.

21 Q. Okay.

22 A. Okay. And then we have demonstrations of instruction that's
23 going to be scheduled, and they're going to be doing those. And
24 that's pretty much it. Show up from the briefing, make sure
25 they're doing briefing. We have this particular method that we

1 would like to see you have for the briefing. We go down there and
2 watch them do it in the simulator and watch the debrief.

3 Q. And who does that?

4 A. Generally program evaluators will do that. So somebody like
5 me, Mike Speer is another program evaluator on the Hawker. But it
6 can be any TCE that can go in there and do a check but generally
7 it's a program evaluators.

8 Q. CRM, what should instructors be looking for regarding CRM in
9 the simulator?

10 A. What should the instructors be looking for regarding?

11 Q. CRM.

12 A. So CRM is something we emphasize but while they're with us in
13 recurrent training, there is not formal CRM training. Okay. But,
14 we do tell them for a checkride, and this is what the grading
15 criteria is. We want you to interact with each other, don't make
16 any decisions unilaterally, don't be -- if you're flying the
17 airplane, let the pilot monitoring work all the knobs and buttons
18 that you need to have pushed. Don't be reaching up and doing that
19 when you're flying the airplane. Don't engage anything in the
20 flight management system without conferring with the other guy,
21 that that looks appropriate. So it's a reinforcement of the
22 communication between the two pilots, and that's pretty much the
23 extent of it.

24 Q. Did you say that was for recurrent?

25 A. No, we do that for both.

1 Q. Okay.

2 A. Initial and recurrent, but there's no CRM, formal CRM
3 training in our curriculum.

4 Q. Initial or recurrent?

5 A. Correct, in the Hawker. That is available in other training
6 here, but a lot of the 135 operators have their own course as
7 well.

8 Q. And the rating scale, 1 to 4 --

9 A. Um-hum.

10 Q. -- how often are 4s given?

11 A. Not very often. I think -- the problem with that system, my
12 opinion now, but the problem with the system is that for every 4
13 and for every 1, or even a 2, you have to make comments as to why
14 it was. So it's easier if it's a poor grade. So that does happen
15 because I have a great memory but it's extremely short. So if I
16 don't put it in their record in the comments, I have to have it
17 somewhere else, either as an email or something, because I will
18 just forget, but the 4s, it's easy to let that, hey, he did a
19 really good job but you don't bother to write it up. So, at least
20 that's me personally. I'm guilty of that.

21 Q. The scenarios that involve stalls in the simulator, are they
22 always predicable, pilot know they're coming?

23 A. We brief it ahead of time that they're going to do that. So,
24 the reason that pilots have to know it's coming is because we
25 don't teach them how to get into a stall. We want them to know

1 how to get out of trouble, not to get into trouble. So we walk
2 them through the entry. So we tell them when to bring the
3 throttles to idle. So it's a pretty big hint right there. So
4 there's no surprise at all unless it's self induced which, if they
5 do, we just let it go and let's see how they react then.

6 Q. I think you kind of alluded to this, stick pusher recovery.
7 What would you expect a pilot to do?

8 A. Well, it's a demonstration.

9 Q. Right.

10 A. So you have to walk them through that because you can't get a
11 stick pusher on the Hawker without getting a stick shaker ahead of
12 time.

13 Q. Um-hum.

14 A. So you're trying to react to the stick shaker. So we tell
15 them, ignore the stick shaker, hand fly the airplane and we're
16 going to wait for the stick pusher just so you can see what it
17 feels like.

18 Q. And they don't do anything once the pusher happens?

19 A. Well, they -- we want them to hold onto the airplane but they
20 can't because the hydraulics pulls it almost out of their hands.
21 We want them to see that. And then follow through with the yoke,
22 go ahead and recover from that.

23 Q. So that's what I'm asking. What is that recovery? So the
24 nose is now pushed over.

25 A. Right.

1 Q. What are you expecting them to do?

2 A. So it's a high altitude recovery instead of a low altitude,
3 but the recovery is still basically the same. You lower your
4 nose, you go into full throttle, you're going to increase your
5 airspeed, and once you're at a flyable speed, regain your
6 altitude.

7 Q. And that would be -- those should be done in that order?

8 A. Yes, maximum thrust. The nose is already lowering for you.

9 Q. But you still have to push.

10 A. You still have to follow through. It's going to push you low
11 enough that you really don't have to push the nose any further,
12 but -- so whatever you're comfortable with, 10 degrees or whatever
13 that would be, there's no set figure for that, increase the
14 airspeed and recover the altitude.

15 Q. So how could somebody get into a full stall with the pusher?
16 They pull up too fast. I'm trying to think. How would -- what
17 would be the scenario where a pilot would get into a full stall?

18 A. If you pull up too fast in general, you get a secondary stick
19 shaker.

20 Q. Um-hum. And then what would happen?

21 A. I guess if they kept holding it, which isn't logical, they
22 would then get a stick pusher and -- but I've never seen that
23 happen. Why would they -- how would get into a stick pusher
24 scenario? If they are purposely trying to stall the airplane.

25 Q. And then once the pusher happens, if they -- so that's what

1 I'm trying to understand. Okay. This pusher's happening.

2 A. Right.

3 Q. How am I going to stall the airplane after that?

4 A. Well, the airplane is stalling when the stick pusher
5 activates.

6 Q. So is that considered a full stall when the pusher's --

7 A. Is that considered a full stall? I would say it is just
8 prior to a full stall. In other words, a full stall, you're not
9 falling out of the sky, but the stick pusher's going to intervene
10 in theory while you still have some elevator effect in this, and
11 then they're expecting you to make sure your thrust is fully up.
12 So I wouldn't say it's a full stall, but it's close.

13 Q. I'm trying to understand how do you get into the full stall
14 from once the pusher occurs?

15 A. If you keep fighting the pusher and not allow it to go
16 forward, that would be one way you'd find it.

17 Q. Okay. And you said the pusher will push the nose over even
18 if the pilot's trying to continue to maintain back pressure?

19 A. Yes. I mean can you overcome that? I don't -- it would be
20 difficult.

21 Q. Um-hum. In your opinion, if I get paired with a pilot in the
22 simulator, and I just don't mesh with them for whatever reason, do
23 you think the CAE instructors can discern if my CRM is still good
24 versus, you know, this other pilot's bring me down in that case
25 versus -- or is, you know, if I can't figure out how to work with

1 that person, we both get knocked on the CRM rating?

2 A. Well, if they can't get along with each other, we generally
3 will intervene. And if we can't reconcile what the issues are,
4 then we'll split them up. So, would it knock the CRM rating?
5 That would depend on the circumstances, but we generally would not
6 let that continue. We'd have to address the cause. And sometimes
7 we can't solve it, but we just break them up, and that solves it.
8 And that happens rarely, but it happens.

9 Q. When is retraining required? Is it when they get a 1? Is it
10 when they have a 2? How is it determined that they need an extra
11 sim session?

12 A. Well --

13 Q. I guess is retraining and an extra sim session different or
14 are those the same thing?

15 A. -- retraining can occur in the same set -- on the same
16 simulator.

17 Q. Okay.

18 A. So an additional simulator, it depends on the circumstances.
19 Now, if it's recurrent, they get generally either one or two
20 simulators and then a check. So if they can't get a 3 or higher
21 for all the items, we're going to have to get some retraining
22 accomplished. In initial, that's normal. The first couple of
23 simulators, there's plenty of 1s and 2s and some 3s, when they're
24 learning how to do a particular maneuver. But a recurrent
25 standard, we're expecting 3s for everything, and if we're not

1 going to get that, then we train that out. The question is can
2 you retrain on that second simulator or is it going to require an
3 additional simulator?

4 Q. With training, is there, you know, an extra simulator built
5 into like the package? If I come to training, am I -- and I mess
6 something up, do I get an extra sim session or do you have to go
7 back to my, you know, the operator? Hey, you owe us for
8 another --

9 A. If it's one item, we'll train it. If it's a, hey, you really
10 didn't know the simulator. We have to call the company.

11 Q. Okay. I apologize if Shawn asked you this but do you recall
12 the checkride you did with Berliner?

13 A. No. I know I gave all 3s. I'm not surprised I gave him all
14 3s. That would be pretty standard, but I do remember -- I
15 remember Paul. I remember he had a very professional demeanor,
16 and I don't recall any issues during the checkride, and I usually
17 do remember those checkrides.

18 MR. SHIARELLA: The ones with issues.

19 MR. JOST: The ones with issues, yeah.

20 BY DR. WILSON:

21 Q. Okay. I appreciate it. Thanks. That's all that I have
22 right now.

23 A. Thank you.

24 MR. ETCHER: All right. Thanks, Kat.

25 You made it through round one.

1 MR. JOST: Oh, boy.

2 MR. ETCHER: You need a break or anything because now we
3 bring out the tools -- no, just kidding.

4 MR. JOST: Yeah, I wouldn't mind going down to the head.

5 MR. ETCHER: Abs. Let's go off the record at 11:22 local.

6 (Off the record at 11:22 a.m.)

7 (On the record at 11:30 a.m.)

8 MR. ETCHER: Back on the record at 11:30 local.

9 BY MR. ETCHER:

10 Q. Well, you made it through round one, and you definitely
11 helped me fill in a bunch of blanks I had when trying to figure
12 out how all this works. I still have a few questions, but round
13 two is usually a lot quicker. I think I only have like 300
14 questions. So it's, you know, it's a piece of cake.

15 A. Great.

16 Q. We were talking about stalls, and I know we've been harping
17 on that and kind of getting an understanding of it. Do you guys
18 use the Hawker *Pilot's Operating Manual* in your training?

19 A. We have a manual called the *Pilot Training Manual* that's
20 produced by CAE.

21 Q. Okay.

22 A. Okay. We reference the AFM, *Air Flight Manual*, but we
23 primarily use the *Pilot Training Manual*.

24 Q. Okay. In the *Pilot's Operating Manual* for the Hawker, they
25 have a section for stalls, conditions, techniques. I'm going to

1 show it to you

2 A. Okay.

3 Q. -- because that will be part of our public docket at some
4 point I'm sure. But that's -- there's two pages to it there, and
5 I'll give you a second to kind of scroll over it just to see if it
6 looks familiar, looks different.

7 A. So it looks familiar.

8 Q. Okay.

9 A. It's not exactly what we do. But this is for the airplane.

10 Q. Right.

11 A. This is not for the simulator. So we get away with a lot
12 more realistic scenario based training in the simulator --

13 Q. Um-hum.

14 A. -- because usually where something's going to happen that's
15 not so good, it's not going to happen at 10,000 feet in A, B or C
16 weather, during a turnout of traffic and you get distracted or
17 whatever that scenario would be. So we have the luxury of being
18 able to simulate that somewhat.

19 Q. Okay. So when you simulate stalls, is it IMC, VMC?

20 A. It's generally IMC.

21 Q. Okay.

22 A. So.

23 Q. All right. Now, I know in their manual they talk about
24 higher than 10,000 feet which I get, but they also stay well
25 within 18,000. They kind of give a bracket.

1 A. Does that say that here?

2 Q. Yeah, I think it was up towards the top.

3 MR. SHIARELLA: Up at the top.

4 MR. JOST: Right.

5 BY MR. ETCHER:

6 Q. So in your opinion, and I know you've dealt in the sim and
7 you see how the simulator handles it, and I know this is an
8 airplane. I get it. There's a difference, but would there be a
9 reason why they wouldn't want to do it above 18 other than because
10 it's in Class A airspace?

11 A. Would there be a reason why they wouldn't want to do it
12 below 18?

13 Q. Above. Above. I'm sorry if I said below.

14 A. It says here the altitude has got to be above 10 and
15 below 18.

16 Q. So why would you --

17 A. Why would they want to do it above 18 is the question?

18 Q. Why would Hawker not want them to do it or why would, you
19 know, is there a different handling characteristic above 1-8-0
20 than it would below? I mean I know you do the high altitude, the
21 3-1-0 stall.

22 A. Right, right. I don't know exactly the answer to that other
23 than, you know, you don't want to get too high of an altitude in
24 order to ensure a good recovery. So the higher you go, the
25 thinner the air. For whatever reason, they decided above 18, it

1 just gets a little too thin because this is, this is conditioned
2 for stall training.

3 Q. Okay.

4 A. So that would be the ideal condition. I can say that.

5 Q. Okay. No, I just wanted to make sure you didn't read that
6 and go, oh, well, we have the sim, you know, it's more --

7 A. We don't do this in the sim.

8 Q. Okay. All right. Perfect. Okay. Do you guys train weight
9 and balance?

10 A. Yes. So --

11 Q. Does airplane operator -- I'm sorry. go ahead.

12 A. So every operator has their own vendor for weight and
13 balance, but under Part 142, we have to train 135.293(a)(3),
14 weight and balance. And so we have a curriculum that we have to
15 train weight and balance one way and one way only. We do not
16 training them with their vendors. All right. We let them use it
17 on recurrent checkride if it's written in their TCA or in their
18 training manual, but for our oral exams, we have to give them the
19 good old fashion way. So it's always a ball of contention for
20 these guys, and we cover it in ground school, and we make them do
21 a weight sheet and --

22 Q. Okay.

23 A. -- and all that stuff.

24 Q. So, when you do the weight and balance, the old school
25 method --

1 A. Right.

2 Q. -- which, yeah, sorry, I'm in that boat, too. I was pre-EFB
3 myself. But when you have to do that old school method, how
4 sensitive is the simulator airplane to the weight and balance?
5 Like it is a narrow envelope for CG? Is it a big fat, wide
6 envelope that, man, you can't hardly get out of it?

7 A. It's fairly narrow, but I mean it's one of those airplanes as
8 long as it's in the green bend, which is not a very large green
9 bend, you're going to be fine.

10 Q. Okay.

11 A. The CG will definitely be manageable. So, CG moves forward
12 as you're burning up the fuel. You know, we'll give them a
13 problem that actually causes them to change the CG, and see if
14 they can cap what the CG is or when it gets down to resetting the
15 trim because of that CG change, it's like the tip of your finger.
16 It's just very small. So it's pretty forgiving, and then for
17 takeoff, if it's out of that green band, there's a light for that.
18 So because sometimes after you've done multiple approaches, you've
19 burned up the fuel and they're ready for takeoff again, as soon as
20 they advance the throttles greater than 60 percent, the light
21 comes on, and it's just a little movement on the trim level.

22 Q. Okay.

23 A. So.

24 Q. So, in your scenarios you give them, is it just, you know,
25 it's repositioning flight. It's just you two pilots. It's your

1 fuel. It's your airplane. Figure it out. Or, is it, oh, you
2 have so many passengers in the back?

3 A. So we give them a plan of action that does a lot of the
4 flight planning for them. So we give them the weights. We give
5 them the fuel. We give them the passengers, unless it's a LOFT.
6 Then they have to figure -- we'll give them passengers and stuff,
7 but they have to calculate the fuel and they're all set. That's a
8 different type of training. Normally, we give them weights. We
9 give them the weather. We give them their clearance. And, then
10 we give them a lineup of what abnormals or emergencies or even
11 normal procedures they inspect.

12 So, it would start off with, you know, you're getting into a
13 dark cockpit. You're doing all your before start checklists all
14 the way through to engine start and there will be a malfunction
15 light say for the engine start, taxi out, takeoff, and then we're
16 going to do a turning stall. And you talk about each maneuver as
17 you get to it. After the turning stall, we're going to do unusual
18 attitudes and how you recover from those. And then you'll do
19 steep turns, is the way I do it anyway, do steep turns and then
20 after the steep turns, if you need to do maneuver stalls, that's
21 when we do that.

22 Otherwise, you do a clean stall and you get vectored over to
23 do an approach. Try to do for a full-blown profile, two non-
24 precision and two precision approaches. So intermixed with that,
25 you get circling, you get visual. We'll do a VOR. These days,

1 I'm doing a VOR and a localizer. I mean most guys look at me,
2 VOR? Like what is that? Nevertheless, VOR, localizer, ILS and
3 RNAV with a DA. So it's two precision, two non-precision. One of
4 them, the localizer, you circle to land visually and then at the
5 end, I do a visual approach with a flap malfunction.

6 And that's all briefed. Very little of the surprise stuff
7 unless it's an abnormal like an electrical problem or something
8 like that, that I'll throw in there just to see how they react or
9 a RA on their TCAS just to get their reactions.

10 Q. Okay. So when you're doing your checkride, is it on fuel
11 freeze or is the fuel still burning it off so the CG's moving in
12 the sim?

13 A. Fuel's burning off.

14 Q. Okay. When typically you do stalls --

15 A. Um-hum.

16 Q. -- where's the CG typically going to be located on your
17 scenarios? Is it going to be aft, middle, forward, all over the
18 place?

19 A. It's not going to be aft. I'm going to say middle.

20 Q. Okay. You said it's not going to be aft. Why -- I mean --

21 A. Normally we don't let them take off with an aft situation.

22 Q. Okay.

23 A. It's usually in the middle normally, around 27 percent, and
24 it just creates for, as the ride progresses, you know, at the end
25 of 4 hours, it's maybe like 21 percent or 20 percent. It's just

1 not a lot of change to it.

2 Q. Okay.

3 A. So, but I'd say in the middle.

4 Q. Does the airplane handle any differently -- the simulator
5 handle any differently that you've seen if it's more forward than
6 aft or --

7 A. You don't even notice it.

8 Q. Okay.

9 A. You don't even notice it. We'll burn typically 2,000 pounds
10 on a 2 hour simulator, 2500 pounds, and the crews don't even know
11 that. I mean they know it, but they don't notice it. But,
12 performance-wise and the way it handles, it's just not a big deal.

13 Q. Okay. Icing. Do you guys teach icing?

14 A. Yeah.

15 Q. How do you guys teach that, you know, in general? Help me to
16 understand.

17 A. So we don't have a winter operations module that's a separate
18 module we offer, but every 135 operator has their own winter
19 operations procedures. So we assume that they come in current and
20 train for that and then we have a winter operations simulator. So
21 we'll discuss that, and we'll go over deicing procedures, you
22 know, the effects of icing, the capabilities of the wing anti-ice
23 system and the anti-ice system, how, you know, we call for a clean
24 wing concept, things in general. It doesn't really count as
25 winter operations training though. So we'll talk about that.

1 And then we talk about abnormals. What happens if let's say
2 your leading edge system which is called TKS, it's this horrible
3 fluid that comes out of the wings, hazardous material, if that's
4 failing and you're in icing conditions, what do you do with that.
5 And we'll do that on the simulator. So it's a normal, quote,
6 unquote, simulator where we do all the approaches and maneuvers I
7 just talked about but you're going to do it sometimes in icing
8 conditions, sometimes not, because we can't do V1 cuts with icing.
9 We're not supposed to do that. We're not supposed to do stalls in
10 icing, but in between with the other stuff, we can ice up the
11 airplane. So what we'll do is we'll ice up the airplane, and
12 we'll put on severe icing, fail the TKS system and then find out
13 if they know what to do. So the book is pretty clear. You have
14 to do a flat type approach. You can't use the autopilot and
15 there's a procedure and checklist that they want you to run.

16 You know, the simulator runs pretty heavy and sloppy when
17 it's all iced up like that. How does it compare? I don't know.
18 I think it's pretty close, but I don't know for sure because I've
19 never done that to an airplane, let alone a Hawker. But that's
20 what our training entails.

21 Q. Okay. Have you ever have pilots say this is just like the
22 airplane or, oh, golly, his is so not like the airplane.

23 A. Either way --

24 Q. Okay.

25 A. -- which is kind of a good thing, right, because I do ice

1 them up pretty badly and so they haven't experienced that other
2 than the simulator. So they should at least gain an appreciation
3 of this is not a situation I want to put myself in.

4 Q. Okay. So when you give them severe icing or even moderate
5 icing or whatever --

6 A. Um-hum.

7 Q. -- how's a crew going to know they're getting icing? I mean
8 it's in a simulator, right?

9 A. It's in a simulator. We have a light that illuminates when
10 it detects ice.

11 Q. Okay.

12 A. So they notice ice detection, and in the simulator, the
13 airplane's handling differently and they know there's something
14 handling differently, and you couple that with the abnormal of a
15 light for that like, okay, I don't have any wing anti-ice, ice is
16 detected. The airplane's getting really sloppy. We clearly have
17 a problem. I mean you can't look out the windows and see anything
18 obviously, but we assume like that. I reinforce that, yeah,
19 you're totally iced up. What are you going to do? And we teach
20 them deicing conditions which is like number one on the checklist,
21 right. But if you're on approach, that's not necessarily an
22 option as far as, okay, we're going to climb up to 15,000 feet.
23 You've got to get it in and land. So -- and that in itself might
24 be enough in icing conditions. Who knows? You just lose 1,000
25 feet or whatever. So you've got to go for that option, you know,

1 what a pilot, flap 0 and it's fast. They're running that thing at
2 V ref plus 45 knots to keep it controllable.

3 Q. Does the sim allow it to be controlled? I mean severe icing,
4 you pick it, you can't get rid of it. You're putting on weight.
5 You're putting on --

6 A. They can fly it. It flies. And if they got too slow or
7 whatever, it would stall.

8 Q. Have you ever had anybody stall it?

9 A. No.

10 Q. Okay. As part of your training, I know you can say you don't
11 have TKS and, you know, you're building up icing when you do. Is
12 there any scenario you have where you flip on the TKS and let's
13 say it goes out to the left wing, but the right wing's clogged,
14 and it doesn't go there. Is there any scenario where you don't
15 have one wing deicing?

16 A. No.

17 Q. Okay.

18 A. No. I'm making sure -- we can't even simulate that.

19 Q. Okay. Okay. All righty. Clay Lacy pilots, they've all been
20 through that, right, that training?

21 A. Yes.

22 Q. Do you remember any of them mentioning how it compared to
23 real life, the plane versus sim? Not just deicing, but just the
24 plane versus sim?

25 A. In general, plane versus sim?

1 Q. Yeah.

2 A. No, I can't recall any comments.

3 Q. Okay. All righty. I think I have one last question, and
4 it's on the stall.

5 A. Um-hum.

6 Q. If my operator I worked for that hired me to become -- bring
7 me here for training, and they said we want you to teach Shawn how
8 to do -- how to recover from full stalls, pusher and all. Can you
9 do that? Is that something you have the ability to do or the sim
10 can even do?

11 A. From a full stall. So, we're going to override the stick
12 pusher --

13 Q. You're going to --

14 A. -- and just hold it and see what the simulator does?

15 Q. That or just get all the way to the pusher, you've got to be
16 able to do the pusher and -- not just a demonstration, but he's
17 got to recover and all that?

18 A. Okay. So we could train it to the stick pusher to a
19 recovery.

20 Q. Okay.

21 A. And the success would be measured by recovery. So, we could
22 do that. We couldn't go beyond that.

23 Q. Okay.

24 A. The simulator -- I don't even know if the simulator would
25 handle that, and if it did, it probably wouldn't handle

1 realistically I'm guessing. But, that would not be a good thing
2 to try to teach --

3 Q. Okay.

4 A. -- only because of the capabilities of the simulator. The
5 simulator can do a stick pusher. Clay Lacy incorporates it into
6 their training program. So we do do that for them.

7 Q. Okay.

8 A. It's a demo, but we have to do a wind shear. Every hot
9 weather, it's mandatory to do a wind shear. That's a demo.
10 There's no grade for wind shear. So it's kind of the same logic.

11 Q. Okay. So, I'm trying to figure out the best way to ask the
12 question. Sorry. If you're training me, I perform this on a full
13 pusher, do you have a way to get an inadvertent pusher at the same
14 time or, you know, as part of the training curriculum?

15 A. The way the system's designed it would be very difficult to
16 have an inadvertent stick pusher because you get a stick shaker
17 before that. So, criteria, you're trained to react to the stick
18 shaker. So get to the pusher and inadvertently it would be -- it
19 wouldn't be inadvertent.

20 Q. Okay. Is there a pusher override switch that a pilot can use
21 in the simulator, airplane, whatever, to -- if they did get a
22 shaker/pusher like that?

23 A. Yeah. So we have these things called SSUs which are signal
24 summing units and we need to have an agreement between both signal
25 summing units that you are in a stall, and if you are in a stall,

1 these two hydraulic valves open which gives a hydraulic pressure
2 yoke, and the yoke goes -- you push it forward. To stop that,
3 push any two stall switches. Some airplanes have two. Some
4 airplanes have three. Any two will cancel the signal and the
5 hydraulic valves will close and it will stop the pusher.

6 Q. Do you have to push them and hold them or just push and
7 release?

8 A. Well, we have red lights that come on, when the stall valve
9 lights are on, meaning there's hydraulic pressure to push the
10 yoke. You just push it long enough until the lights go out. It
11 shouldn't take long. I don't know how long it takes, but 1 or 2
12 seconds.

13 Q. So once the lights go out, I can release.

14 A. Yeah.

15 Q. And it doesn't reopen back up as long as they're closed.

16 A. Well, in theory, you're recovering.

17 Q. Correct.

18 A. So would it, would it reset if you went back into a stall?
19 Yeah, it would reset.

20 Q. Okay. Do you guys teach that?

21 A. We teach how to turn off the stick pusher, yes.

22 Q. Okay. I think you have answered all of my questions, at
23 least all my brain can handle right now I think. So I appreciate
24 that, but let me make sure if Kat has any questions.

25 DR. WILSON: I don't. It was really helpful --

1 MR. JOST: Good.

2 DR. WILSON: -- the responses you had. Thank you so much.

3 BY MR. ETCHER:

4 Q. All right. Well, with that -- you knew we were coming in
5 today to talk to you about this crew or at least in your case, the
6 one. Is there anything you can think of that's like, man, I can't
7 believe they didn't ask me this but it would really help them? I
8 know nobody wants to self-disclose.

9 A. Right.

10 Q. But if it would really help us.

11 A. No, I guess if I new more of the circumstances surrounding
12 the actual crash. I mean I know loosely. I don't know the
13 details obviously. But, no, I can't think of anything.

14 Q. Okay. Well, with that, we can call this concluded at 11:50
15 local. And again, thank you so much for the education you've give
16 me.

17 (Whereupon, at 11:50 a.m., the interview was concluded.)

18

19

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23

CERTIFICATE

This is to certify that the attached proceeding before the
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FATAL HAWKER 900XP ACCIDENT
NEAR WESTWATER, UTAH
ON FEBRUARY 7, 2024
Interview of Andrew E. Jost

ACCIDENT NO.: WPR24FA083

PLACE: Whippany, New Jersey

DATE: September 12, 2024

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.


Kathryn A. Mirfin
Transcriber

Andrew Jost Clarifying Statement

The following statement was provided after Mr. Jost reviewed the preceding transcript. Of note he lists page 53 in his clarification; however, after combining all CAE Instructor transcripts the page is now page 191. Here is Mr. Jost clarifying statement:

I reviewed the transcript of the September 24, 2024 meeting with Shawn Etcher and Dr. Katherine Wilson.

I have one point of clarification. On page 53 of the transcript I responded to the question about the stick pusher without regard to the selection of the inhibit switches. That was incorrect.

Once the ident/inhibit switches are selected the stick pusher will not reset. I responded they would; not considering the switches being inhibited or not.

Andrew Jost
CAE
October 30, 2024

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

* * * * *

Investigation of:

FATAL HAWKER 900XP ACCIDENT

NEAR WESTWATER, UTAH

ON FEBRUARY 7, 2024

* * * * *

Accident No.: WPR24FA083

Interview of: DAVID K. ROSS, Hawker Instructor
CAE

CAE
Whippany, New Jersey

Thursday,
September 12, 2024

APPEARANCES:

SHAWN ETCHER, Operational Factors Investigator
National Transportation Safety Board

DR. KATHERINE WILSON, Human Performance Investigator
National Transportation Safety Board

RICHARD SHIARELLA, ESQ.
Senior Legal Counsel for CAE

I N D E X

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I N T E R V I E W

(2:47 p.m.)

MR. ETCHER: All right. Good afternoon. It is September 12th, 14:47 local time. My name is Shawn Etcher. I'm an operational factors investigator with the NTSB. All that means is that I look at everything kind of forward of the cockpit door and how it interacts with the crews that were involved. You're here to educate me on training in the Hawker and kind of the whole process that a crew would know coming in here and, you know, any information you can give us maybe about this flight crew.

Thankfully, I'm not the smartest person in the world here. But thankfully, I have a colleague that's really smart, that she's very helpful and between the two of us, we try and get as many questions and knowledge as we can, and I'm going to have her introduce herself as well. Kat.

DR. WILSON: Katherine Wilson. I'm a human performance investigator with the NTSB.

MR. ETCHER: Both our roles here are just to figure out everything we can, learn what we can to help the investigation. The ultimate goal, of course, is to prevent an accident from ever happening again. I always tell people if I can do myself out of a job, I've had success. But, in the process, we've got to talk to a lot of people, and thank you for coming in to educate me as well.

As part of our process, we do record these interviews. That

1 recording gets sent off to our transcriptionist who transcribes
2 it. They'll send it back to us. Kat and I will go through it to
3 make sure there's no misspelled names, words, acronyms, things
4 like that. We never change a thing that you say. We just correct
5 for spelling errors. We'll send it back. They recertify it, and
6 we'll send it to your legal counsel as well so he can provide you
7 a copy to review. If you see, oh, that's really not what I meant
8 or I'd like to clarify that a little bit, perfectly fine. We'll
9 just have you type up a statement, and we'll attach it right to
10 the transcript, because we want to have all the factual knowledge
11 that we can to help us figure this out.

12 So with that information, are you okay with us recording --

13 MR. ROSS: Absolutely. Please record.

14 MR. ETCHER: Okay. As I said before we went on the record,
15 the transcript itself will become public. The audio does not. So
16 you don't have to worry about hearing your voice on the 10 o'clock
17 news or anything like that.

18 As part of our regulations though, we give you the right to
19 have a representative here with you while we talk to you. Do you
20 wish to have a representative with you?

21 MR. ROSS: Yes, I do.

22 MR. ETCHER: And would that person be Richard?

23 MR. ROSS: Yes, it would.

24 MR. ETCHER: Richard, for the record, would you please
25 introduce yourself.

1 MR. SHIARELLA: Yes. I'm Richard Shiarella, CAE legal
2 counsel.

3 MR. ETCHER: Thank you very much.

4 MR. SHIARELLA: Thank you.

5 MR. ETCHER: During the interview, and we call it an
6 interview. It's really my education. So during my education,
7 we're going to ask a lot of questions because I'm a slow learner.
8 So I want to learn all I can. But as we ask questions, if
9 something doesn't make sense to you, it's okay. Ask for
10 clarification. It won't hurt us a bit. If you give me an answer
11 that I don't understand, I'm going to ask for clarification as
12 well. So it's that two-way street.

13 MR. ROSS: I understand, Shawn.

14 MR. ETCHER: It's not a checkride. I don't know is a good
15 answer as well if you don't know. It's perfectly fine.

16 MR. ROSS: Okay.

17 MR. ETCHER: And if you have an opinion, just tell us it's
18 your opinion. So when I'm reading through this in a month or 2 or
19 whenever I happen to get around finishing writing up this report,
20 I'm reading through this, that way I can separate facts from
21 opinions, and that helps me a lot as well and helps the reader.
22 But like I said, if you don't know an answer, I don't know works
23 good.

24 The last rule I have, if you will, if you need a break, just
25 say so. You need to use the restroom, confer with counsel, get a

1 drink, whatever. Just say so, we'll hit pause, take a break.
2 It's not a problem. Usually by the time, you know, you need a
3 break most of us do, too. So don't even think twice about it.
4 I'll try and ask throughout as well, but in case you need a break
5 right then, just say so, and we will definitely take breaks, all
6 righty.

7 MR. ROSS: Understood.

8 MR. ETCHER: So with that, we'll get started.

9 INTERVIEW OF DAVID K. ROSS

10 BY MR. ETCHER:

11 Q. I always try and ask the toughest questions first, to get the
12 hard ones out of the way. For the record, can you please state
13 your full legal name?

14 A. David Keith Ross.

15 Q. And spell your last?

16 A. R-o-s-s.

17 Q. Thank you very much. Is it okay if we call you Dave,
18 David --

19 A. Dave is fine.

20 Q. Okay. Sir, no. So, Dave, what is your job title?

21 A. Presently I am an instructor on the Hawker here in beautiful
22 Whippany and in Orlando part time.

23 Q. Okay. And here in Whippany, are you with CAE?

24 A. With CAE. I'm sorry.

25 Q. Okay. Perfect. And you do the Hawker in Orlando as well?

1 A. Yes. The same company, CAE has an operation in Orlando, too.

2 Q. Um-hum. Okay. Perfect. Since you're an instructor, do you
3 have any airman's certificates and type ratings?

4 A. Yes.

5 Q. And what are those?

6 A. I am ATP typed in the Lear, Hawker, Falcon, Saber, 73, 75,
7 76, 777, 78, G4, G1, G2. I think that's all.

8 Q. That's it?

9 A. I think.

10 Q. No, I'm just kidding.

11 A. Also a flight engineer qualification and that's it.

12 Q. That's an impressive list. So usually I wait until a little
13 later, but now I'm curious, all those certificates. Kind of give
14 us a brief history of your aviation career, because it sounds like
15 you've got quite the career.

16 A. Embry-Riddle, I got out in '75. Flew Air Taxi in Puerto Rico
17 what somebody called an Islander which looks like a minivan with a
18 wing glued on top. Came back home, flew Lears for charter for a
19 year. Wound up at Zantop in Detroit flying Lears, Honzas, G1s.
20 Went to Philip Morris where I was a G1, G2, G3, Hawker captain,
21 Saber captain. Went to New York Air in 1985 flying the DC-9
22 initially and then the MD-80. Went with Continental, flew the MD-
23 80, A300, 75, 73, 777, 78. I was CRM instructor from 1990 to '07,
24 writing and producing most of our stuff. They sent me a lot
25 overseas to teach it. In addition to that, I was the chief pilot

1 for 73 operations in New York from '07 to '12, when I wound up in
2 Chicago as the director of flight operations under a rotating
3 basis for a couple of years. Became the 777 instructor because of
4 less workload. That was a 73 -- correction, 777, sim and IOE
5 instructor on the line, then retired off the 78 because I wanted
6 to do as little as possible for my last year. That's about it.
7 That's also one wife, two kids. My son is an airline pilot. So I
8 keep in touch with him, and in addition to the work that we do
9 here, I'm a standup comedian. I perform at various clubs in New
10 York and in Orlando. That's about it.

11 Q. And you sleep when? With the happiness of coffee. All
12 right. I understand.

13 A. Very well.

14 Q. All right. Well, I appreciate that overview of your career
15 and history. That's most impressive. So thank you for that.

16 A. Um-hum.

17 Q. How long have you been at CAE?

18 A. Just under 3 years. Initially posted to the G4 program.
19 When they found out I had a bunch of time in the Hawkers, it made
20 more sense to transition me to the Hawker where I'm happier.

21 Q. All right. So, you mentioned time. So these are the
22 toughest questions. Ballpark, how much total time do you have?
23 And it can be a really big ballpark. It's okay.

24 A. Just 28.

25 Q. I'm going to assume thousand.

1 A. 28,000 rough estimate.

2 Q. Yeah. Okay. Perfect. And you said you had time in a
3 Hawker. About how much time?

4 A. At Philip Morris, I was on it for about 4 1/2 years. So
5 probably 1500 hours, maybe a skosh less.

6 Q. Okay.

7 A. Both the 700 which was a similar type but different layout,
8 and then we've got the first 800s in the country, serial 13
9 and 25.

10 Q. Okay. All right. Perfect. All righty. And forgive me.
11 When did you get hired on here at CAE? About 3 years ago you
12 said.

13 A. A tick under 3 years ago.

14 Q. Okay.

15 A. It would be right about 3 years.

16 Q. I thought that was what you said, but I was like, let me make
17 sure. So here at CAE, as an instructor, is that your job or do
18 you have other duties you do here as well?

19 A. All I do is the sim instruction.

20 Q. Okay. Do you do any ground school?

21 A. The only ground school I do is called AVT which is classroom
22 based, it's the aircraft familiarization, how to work the FMC,
23 know where all the switches are. So it's not system. It's
24 operation of the aircraft.

25 Q. Okay. All right. And is that like a day course, an hour

1 module?

2 A. Well, there are 2 hour blocks, typically five 2 hour
3 blocks --

4 Q. Okay.

5 A. -- where you teach how to work the FMC, flight management
6 computer, how to work -- flip all the switches to get it started
7 and stopped and some basic flows and nuts and bolts.

8 Q. Okay. All right. Perfect. While here at CAE, have you had
9 to instruct -- have you had the opportunity to instruct any of the
10 Clay Lacy pilots?

11 A. Yes, I have.

12 Q. How often? How many? Ballpark.

13 A. I can only think of one right now that jumps out at me, but I
14 know I've seen through here at least a handful, three, four.

15 Q. Okay.

16 A. I knew Mr. Lacy. We met up in California a couple times,
17 perhaps 20 years ago.

18 Q. Okay. All right. So I've got to ask, because you threw it
19 out there. You remember one. Why do you remember one, clearly
20 one pilot?

21 A. Did you have a name?

22 Q. Well, I'm asking you who you remember? Or is there a reason?
23 Because usually people don't necessarily remember unless they have
24 a really good reason.

25 A. That's true. An individual had some challenges.

1 Q. Okay.

2 A. And I think it was Darrin, in fact, hence the name. He had
3 some issues.

4 Q. Okay. So we can start right there if you want. And first of
5 all, for the record, Darrin being one of the accident pilots,
6 correct?

7 A. Darrin Towe or Towe depending on how you pronounce it.

8 Q. Okay.

9 A. This shows I had him for four sim sessions. To be honest,
10 it's a year ago, and some of my details are fuzzy. I wish I would
11 have had notification of this in March where I might have -- my 70
12 year old neurons are not what they were at age 50. So please
13 forgive me for --

14 Q. No, no need.

15 A. Okay. He had some issues.

16 Q. Okay.

17 A. And, I had him for initials. I can show here the basic first
18 two simulators which are how the airplane works, how to run flows,
19 how to start, stop, but very basic indoc where there's a wide
20 acceptance of deviations. You're teaching as opposed to checking.
21 But I had him for sim number 4, the question is 5 and 6, and at 6,
22 he did not do particularly well -- 6 and 7, I'm sorry.

23 Q. Okay.

24 A. 7 he did not do particularly well.

25 Q. All right. Do you remember why he didn't do particularly

1 well?

2 A. Does the term UAS, undesired aircraft state, mean something
3 to you?

4 Q. You could say that.

5 MR. ROSS: Kat.

6 DR. WILSON: Um-hum.

7 MR. ROSS: He had more than five UASes in a single period,
8 where if something was not done, he would have hit the ground, hit
9 the tree, hit the -- gone off the end, done something that would
10 have damaged the airplane.

11 BY MR. ETCHER:

12 Q. Okay. So -- and for the record, you said that was S7?

13 A. You're going to have to cut me a little bit of leeway here.
14 Again, a year into it.

15 Q. Right.

16 A. Some of the things that I saw on S6 might have flowed into my
17 memory for S7.

18 Q. Okay.

19 A. So I may not be exact but I'll give it as best I can.

20 Q. No, and that's perfect. I know it's been awhile ago, and I
21 -- it's always hard to pull stuff out. I don't care if you're 20
22 or you're 70. I can't remember what I did yesterday sometimes.

23 A. Very well.

24 Q. So 6 or 7, one of those. How many sim sessions would they
25 normally have before a checkride?

1 A. One, two, three, four, five, six and then the check. So --
2 but the number 3 is not typically given so that --

3 Q. Okay.

4 A. -- so there's a disconnect there. So on the 6th sim,
5 numbered S7, he wanted -- because his operation does Aspen quite a
6 bit, he wanted to work out of there which is easy. It gives a
7 lot, it's high and it's appropriate.

8 Q. Um-hum.

9 A. And, he had issues.

10 Q. Okay. Can you recall what? I know you said undesired, but
11 just kind of give me an understanding of what you saw?

12 A. The scenario runs typically from Aspen out of there,
13 potentially an engine failure, run over to Denver, get up to high
14 enough altitude where you can pop a door and do an emergency
15 descent, do an airborne high stall, stall approach I should say,
16 not actual stall. Did an RTO where the airplane. I failed the
17 instrumentation at about 80 knots on a low visibility day, and he
18 applies the brakes, applies the airbrakes and departed the runway.
19 However, the power levers were still left at takeoff power. And
20 as he departed the runway and brought it to a stop which the
21 airplane magically did, I kind of questioned his, you know, what's
22 missing here, and he didn't recognize the error. I consider that
23 an undesired aircraft state.

24 On takeoff out of Aspen, instead of keeping your speed back
25 which is what we briefed, he let himself accelerate and wound up

1 getting perilously close to a mountain where I had to stop the
2 show to avoid a crash.

3 High altitude, like 310, we pop a door. So we do an
4 emergency descent. Naturally you're over the Rockies which Pikes
5 Peak is just down there and the MSA is 14 plus, 15. He went down
6 to 12 I believe, and he was still in the cloud but there's -- the
7 terrain are rising around us, thousands of feet above us. And
8 when I said, you know, how low should we be going here. He goes,
9 oh, we'll be fine. And I consider that an undesired aircraft
10 state if you're in among the valleys or over at Vail someplace and
11 the big hills are very close.

12 After reading some of my comments and grading here, I can
13 pick out what it was. We did a localizer on the approach at the
14 Denver with a missed approach altitude was about 8,000. I gave
15 him a stop short at 7,000 on the miss, and with those rising
16 terrain, just to see him do a CFIT maneuver, and he got to 1,000,
17 to 500 and it's going terrain, terrain, terrain, pull up and he's
18 not doing anything. So stopped the show at about 200 above the
19 ground and took us out of cloud and I go what's wrong here? What
20 do we got? He goes I didn't know I was supposed to do that.

21 On another miss he leveled off at about 200, 300 foot above
22 the ground, did not climb because the flight director, he didn't
23 push the go around button. Go around sequence as the flight
24 director, do about a 12 degrees nose up and following that will
25 take you away from the earth very nicely. And he stayed at maybe

1 2, 300 foot AGL in the cloud. I consider that an undesired
2 aircraft state. And that's about all I can remember.

3 Q. Okay.

4 A. I didn't feel comfortable. People make mistakes. We're
5 humans. That's okay. But I want people to recognize their
6 mistakes so they grow from it and don't repeat it. And here's a
7 conundrum. And, Kat, I'll ask you, why would a student on his
8 first couple periods do okay and then fall apart?

9 DR. WILSON: Well, I'm not the one being questioned right
10 now. I'm just teasing. To be honest, I just actually wrote down
11 that question. Why do you think that day was like it was?

12 MR. ROSS: On the debrief -- I run a briefing in a very open
13 manner, and I stress Vince Lombardi's stretch for perfection,
14 while we will never achieve it, we'll achieve excellence. Part of
15 that is being able to at the end of the day, like walking into a
16 confessional, these are the faults I did, this is what I did
17 wrong. I need to make sure. So I want every crew that I deal
18 with to debrief themselves. Sit back over a cup of coffee, a cold
19 beer and say, you know, we did this pretty well. We screwed that
20 up. That means the crew is a self-correcting team that eventually
21 they will come closer to this perfection which is unachievable.

22 When I asked him how did he do? He was like, ah, it was
23 okay. And he didn't have a realistic view of how he did. I
24 dismissed the other crewmember, Bill or somebody like that I
25 guess, whatever. And I sat with him for a few minutes. What's

1 wrong? How come -- here you're okay. And today you're -- he
2 mentioned that his brother was dying of cancer. He mentioned that
3 his son had committed suicide some months prior to this. He
4 mentioned -- and I kind of asked, why are you here? And why
5 should you be going through training when you have this much on
6 your plate? Here I sit with a guy who had multiple UASes, and I
7 would not put my mom in his airplane. I cannot pass him to the
8 next crew with good conscience. So I gave him a significant
9 number of negative grades. I talked to, gee, you need to get your
10 head clear. If you need to take a break, if you need to go home,
11 whatever.

12 I had seen similar cases like this at Continental and United
13 where the fellow just wasn't in it, but ultimately people get hurt
14 out there obviously which is why you're both here. I think that
15 pretty much sums it up.

16 BY MR. ETCHER:

17 Q. No, that's a great recollection of the things, even though
18 it's a year old. I appreciate it.

19 A. Again sim 6, or 5 maybe and 6, may get blended, but the last
20 period was unacceptable.

21 Q. Um-hum.

22 A. And I couldn't put my mom on his airplane.

23 Q. Um-hum. Okay. So after that period and you said, you said
24 I'm not advancing you or whatever you told him, what do you do as
25 an instructor? Is there, you know, do they send -- do you have to

1 explain why to anybody? Do you --

2 A. In fact, it was -- Kyle was not available. So I had to deal
3 with Murphy, Joe Murphy. He was another fleet manager. I
4 explained to him in general what happened, a little back story.
5 It was suggested, do you want to go up with him again, and I
6 didn't think it was a positive idea, that maybe somebody else
7 would have a different set of tools and be able to work through --
8 work with him better than I could have. There was no pressure, no
9 hassle, no -- never in the years I've been here, never had anybody
10 question my judgment in that regard. And I've only had to down a
11 handful of people, but all of us here, even the attorneys, feel
12 best -- it's our job to make people excel and come out of here
13 with the technical knowledge, the human factors knowledge, the
14 bound in their step, they want to go out and fly their airplane.
15 Anything less is less than good. And I couldn't advance him
16 knowing that he might not be able to pass -- do well on his
17 checkride. And I don't want to have to -- I have a checkride
18 failure on his head. I'd rather have a single period failure.

19 Q. Um-hum.

20 A. Murphy was nothing but kind, no problems, no hassle, no
21 nonsense, and I think he chose here that Tony Mancini was a very
22 qualified instructor, sharp fellow. I think he had him next, and
23 he did okay.

24 Q. Okay. So, knowing from you know from that last period or the
25 two periods before, whichever it was, did you make Tony aware of

1 that when he was --

2 A. I gave him a general -- the guy had some issues, but he could
3 see that from the training folder, and he would see more than what
4 I told him. He had some family problems going on. That was it.
5 I don't -- it's tough for one instructor to draw a boundary
6 between telling the next instructor he's terrible, you should --
7 but the next instructor walks in with a predetermined attitude. I
8 want him to go in with as clean a slate as possible but I need to
9 let the next instructor know that he had issues. So, you have to
10 walk that midpoint.

11 Q. Um-hum. Okay. All righty. Well, I appreciate all that
12 information. That really helps us understand the 1s that we saw
13 on some of his. So that's -- and that's, you know, you can see
14 the 1s. You know they're not good, but now understanding it, it
15 really helps us form a more complete picture of everything. So I
16 do appreciate that.

17 A. Very well.

18 Q. Let's move on just a little bit from his training. Was he
19 the only one you trained of the accident crew?

20 A. I don't recall ever seeing the other fellow. What was his
21 name?

22 Q. Paul --

23 A. Paul.

24 Q. -- Berliner.

25 A. I don't remember if ever had him, and he doesn't stand out as

1 anything. The really excellent ones stand out and the really
2 substandard -- the mediocres, the 90 percent in the middle.

3 Q. Okay. I always figure if somebody doesn't recall, that says
4 a lot, but when you quickly said, oh, I remember one. It's like,
5 hum, okay. Well, they're either Chuck Yeager types or the
6 opposite. So I appreciate your honesty in helping us understand
7 how you remembered him so well. So let's kind of dig in just a
8 little bit into training.

9 A. Okay.

10 Q. For a moment, let's just say I work for company, XYZ, and
11 they sent me here, brand new to the Hawker, new type rating, to
12 get my training so I can go back and fly their airplane.

13 A. Um-hum.

14 Q. And I come in and you have the unfortunate luck of being one
15 of my training instructors. And I say unfortunately because I'm a
16 slow learner as I've said already.

17 A. People learn at different rates.

18 Q. There you go. Well, I appreciate that. So I come in. Kind
19 of help me understand a big footprint if you will, what I should
20 expect of my training.

21 A. First of all, where are you starting from?

22 Q. I've never flown a Hawker in my life.

23 A. Ah, but you have 5,000 hours in CRJs.

24 Q. Sure.

25 A. Okay. So you're a jet qualified professional aviator.

1 You're not a 300 kid.

2 Q. Correct.

3 A. I -- don't use that word. A 300 hour neophyte.

4 Q. Right.

5 A. All right. So my job is to transition you to make -- teach
6 you how the bells and whistles and the switches work on a Hawker
7 and the procedures work on a Hawker but you already have
8 significant check background, correct?

9 Q. Um-hum.

10 A. We start with a whole bunch of ground school. As you can see
11 here, a lot of ground school, and I get you for the first days of
12 sim. We review what we're going to do for the individual period,
13 say air work and low speed maneuver. We're going to practice high
14 dive. We're going to practice steep turns. We're going to do
15 stalls, and then we're going to do approaches. Now, I brief on
16 what anomalies, abnormalities we're going to work on the first
17 period, not much, but how things work. We get a training
18 footprint set, share phone numbers, and we sit and talk.

19 Q. Okay. All right. So you start mentioning some of the stuff
20 we're going to train in.

21 A. Okay.

22 Q. And one of the things you mentioned is stalls.

23 A. Um-hum.

24 Q. Let's talk about stalls.

25 A. Sure.

1 Q. First of all, how do you teach stalls?

2 A. Well, we are required to cover throughout our syllabus three
3 different types, a departure stall, typically the flaps at the
4 departure setting and a bit of a turn. An approach stall that is
5 45 degrees of flap, say on a glide path mimicking what the Turks
6 did in Amsterdam if you remember that accident.

7 Q. Um-hum.

8 A. Power levers to idle, the final flap, and you recover from
9 that. And then finally a clean stall, both at lower altitude and
10 higher altitude. And all of these are approaches to stalls.
11 There is one stall where they go through the shaker to the pusher,
12 and I want them to know how to disarm the pusher and get their
13 muscle memory going where they have to hit those two switches. But
14 other than that, that's it.

15 The departure stall is at departure, typically about 12, 1500
16 feet as they're making a turn. They recover wings level, max
17 power. My hand would have gone up there to idle the power at
18 about 1,000 feet and with the nose of 12, 14 degrees up, it will
19 decelerate fairly quickly.

20 The 45 degree flap is, they're on the glide slope say at
21 4,000 feet, configured say at -- I have them do it far enough out
22 where they have a good bunch of altitude to recover, and my hand
23 again goes up there and pulls the power levers back to idle
24 simulating what happened with the Turks. And then they recover
25 from that to a go around.

1 And the other one in altitude, they just push the nose down.
2 They have power. They get to the pusher. This airplane is fairly
3 gentle with its pusher, but they know that they have to keep the
4 nose down to get the power up, energy back. Typically 10,000
5 feet, you can lose 3, 4,000 feet getting it if they're not -- if
6 they're a little slower. They're brand new to the airplane. So
7 one, two, three four.

8 And the pusher. Then if we get to that, they have to know
9 how to disarm it, or if it happens on takeoff by fault, I need to
10 make sure they know how to push the buttons so they don't have
11 that tip at about 50 pounds of yank out of your hand. It could
12 really be disarming.

13 Q. Okay. So I watched your hands. We're talking about the
14 disarming of the pusher. And I watched your hands do this.

15 A. Yeah.

16 Q. What are you doing?

17 A. There's two switches on both sides. Obviously four, two on
18 one, two on the other. You have to push both simultaneous which
19 will kill the stick pusher. It eliminates red. It's fairly easy
20 to see. It's -- you know that the pusher goes off. The airplane
21 -- the simulator is fairly gentle. The airplane, and I've only
22 been through it in a 700 with a different series. It's
23 significant, and it's somewhat violent. It grabs it out of your
24 hand and gives you a good yank. If it happens at low altitude,
25 say on takeoff, via fault, it could be a handful and I want to

1 make sure that my students know exactly where those buttons are
2 and what it means now to kill it.

3 Q. Okay. So when they push those two buttons, can the non-
4 flying pilot or the pilot monitoring, can they push those two
5 buttons or is it always the pilot flying that --

6 A. Actually, I never thought that, but I think anybody who
7 pushes those two buttons will kill the stick pusher.

8 Q. Okay.

9 A. I think --

10 Q. On both sides?

11 A. No, if you're the flying pilot, and you get to the pusher and
12 if I push the buttons on my right seat, I think I kill it. I
13 believe I do.

14 Q. Okay.

15 A. But I want all pilots to know what it is, what it means and
16 have that information in the back of their head. That's
17 important.

18 Q. So in the sim, I'm going to assume just by the question
19 there, in the sim, I assume you have the pilot flying push the
20 buttons?

21 A. That's the normal, but if the right seater pushed the buttons
22 instead, mission is accomplished safely, people learn. I have no
23 problem with that.

24 Q. Okay.

25 A. But the norm is for the flying pilot to disarm -- to note

1 where it is to disarm it.

2 Q. Okay. All right. So when they push the buttons to disarms
3 it --

4 A. You have to hold the buttons by the way.

5 Q. Yeah. You push them and hold them.

6 A. Right.

7 Q. If I release them, is it going to immediately push me back
8 into pusher if it's an inadvertent --

9 A. I believe so, yes.

10 Q. So I can't -- it's just an override, temporary override.

11 A. Temporary override.

12 Q. Okay.

13 A. And it happens at 5, 6 knots before the break at like 102 or
14 105 on the angle of attack indicator.

15 Q. Okay. All righty. So when pilots get that, from your
16 experience sitting in the sim and watching them, is that eye
17 opening? Is it a non-event, whatever?

18 A. Most of the time it's an eye opening. It's the noise and the
19 fury -- I shouldn't say fury. It yanks the yoke out of your hand,
20 and the simulator, I've only seen it in an actual airplane in a
21 700. It's a slightly different series. And the yank was
22 significant.

23 Q. Okay.

24 A. It was two hands, good strong grip and be able to do that to
25 kill it, and it was -- I did it with one of the instructors from

1 Flight Safety and it is the other company. But Flight Safety out
2 of Wilmington, and he took me up for that, for the stall demo.

3 Q. Okay.

4 A. You don't want to do that.

5 Q. No, no. Doing it in the sim is too realistic. So -- but
6 part of our job but, yes, I can imagine not wanting to do it in an
7 airplane.

8 A. Um-hum.

9 Q. So, from -- I know you've done it in a different type of a
10 Hawker, but a 700.

11 A. Um-hum.

12 Q. When it stalls and breaks over like that, the pusher grabbed
13 it, was it straight over or does it have a tendency to roll left
14 or right?

15 A. The airplane that I did it in was one of the new Philip
16 Morris Hawkers, and the airplane had just completed outfitting in
17 Wilmington at Atlantic Aviation, and they had done some test
18 flying with it. So it was released to service. I had to do my
19 three bounces. Our simulator down there was only a level C, and
20 we're talking in 1982. So they had to go out and do three
21 bounces, a V1 cut and while we're here, let's give you a stall
22 demo. So we went up to the upper teens someplace and did it.
23 It's significant. It's abrupt. Does that answer the question?

24 Q. Did it break left, right, straight over?

25 A. This one went straight ahead, but it had very little time on

1 it, 30 hours.

2 Q. Okay.

3 A. I wonder how many hours this Hawker had, and how many
4 landings and how many times the leading edge has been off it? How
5 many bounced hard landings to give the airframe a little bit of a
6 twist? In an airplane, clean, brand new slightly different
7 variant, it was significant pitch down but not particularly nasty.
8 Other types, and I did it in a simulator in a Lear, a Lear tip
9 tank Lear, that's wildly nasty, horrible, scary. This was
10 concerning as opposed to terrifying.

11 Q. Okay. Okay. That's some great information. I appreciate
12 that. It helps me understand what you're looking at. So in the
13 sim, does it always just -- the shaker, I mean know you always
14 just go to the shaker. You guys never teach to a full stall,
15 correct, other than the demo?

16 A. Well, the stick pusher demo. So you're right next to the
17 stall.

18 Q. Right.

19 A. I have had students yank back when they shouldn't and put
20 themselves in a full stall, but this simulator just was not
21 particularly nasty.

22 Q. Okay.

23 A. You've dealt with simulators before?

24 Q. Yeah.

25 A. Okay. Simulators simulate serial number 412, and they

1 duplicate 412. The simulator doesn't age. It's handling
2 characteristics don't deteriorate as the real serial number 412
3 might deteriorate. Serial 412 has had 10,000 hours and 5,000 hard
4 landings from hand fisted pilots. It has had leading edges on and
5 off it. It has had the flaps removed, the ailerons removed. Sim
6 that mirrors 412 never had any of that. So I could only guess
7 what the real airplane that has aged would be like.

8 Q. Okay. Okay. Makes sense. I just wanted to make sure where
9 we stand with everything. So I appreciate that.

10 A. Okay.

11 Q. Let's talk a little bit about the stall training in the sim.
12 Is that VFR or IMC when you guys do it in the sim in the training?

13 A. I do it VFR. On occasion, the flap 45 I can do IMC, but VFR
14 departure down low, woo. I don't -- that would be -- I wouldn't
15 want to do that, and at altitude or above cloud, I don't want to
16 put this thing in cloud and have them think about stall.

17 Q. Okay.

18 A. Because I don't know what you might do.

19 Q. Okay.

20 A. So with the exception of a 45 landing, and that we typically
21 pull the power levers back at 4,000, so that the stall would occur
22 at 3500, 3200, for the stick shaker were to call at 3200, and they
23 have to go around from there. But altitude clean, I typically do
24 it clear.

25 Q. Okay. All right. Have you ever demonstrated stalls in icing

1 conditions?

2 A. No.

3 Q. Okay.

4 A. This -- I'm trying to think if I did the Boeings. In the
5 Boeings, yes. This airplane, no.

6 Q. Why? I mean your eyes got really big when I asked. So --

7 A. Well --

8 Q. -- I'm guessing there's a really good reason why you wouldn't
9 want to.

10 A. I don't typically like to do stalls in icing. Some of the
11 airplanes don't have fully deice. Like the Boeing tail is not
12 properly deiced. Would we do it in cloud potentially? Maybe but
13 the temperature would be such where we would be accruing ice.
14 Also for recovery, having the engine anti-ice off, makes things a
15 lot easier. You get a bit more power out of it. I think if a
16 bunch of ice accumulated on the airframe, this is certified for
17 known ice, but it's possible you could wind up with ice in
18 various other places potentially. So I probably would not.

19 Q. Okay. Even as a demonstration?

20 A. I didn't see that in our syllabus.

21 Q. Okay.

22 A. If it is, I'd be happy to do it or at the end if someone has
23 a specific need outside of the course, but I try not to invent
24 stuff, right. And, no good will come of that.

25 Q. Okay. No, that's well said. So I appreciate that. So the

1 icing system on the airplane, just a little bit. It's not a hot
2 wing, correct?

3 A. Would you like the thumbnail?

4 Q. Sure.

5 A. TKS is an alcohol based gel goo that is pumped out from a
6 tank on board the aircraft onto the leading edges and the leading
7 edges of the vertical and horizontal stab. It comes out of a
8 small mesh which are replaceable sections. They're plastic tubing
9 that leads out to these wing meshes and provides adequate deicing
10 and doesn't have any requirement for bleed air. Hence, you could
11 use it for takeoff, landing, without having a performance penalty.
12 Generally works very good. It is an anti-icing system and not a
13 deicing system. Note the difference between the two. And there
14 is a large -- what looks like a kitchen timer over the captain's
15 head which will run this pump for a few minutes and then -- so you
16 don't wind up draining of your fluid. Fluid is typically
17 replenished on the ground via this alcohol and goo. And it's all
18 bonded with one manifold, one pump, and that's about it.

19 Q. Okay.

20 A. It should be checked on preflight where you walk around the
21 airplane as the thing is on. This is the old days that it was
22 somewhat hazardous and they don't want you to do it now, but our
23 normal preflight was to turn it on as the AP was on and look at
24 all leading edges on both the wings, vertical and horizontal stab,
25 make sure you're getting a little bit of drip coming off the

1 entire leading edge. That was the preflight. What else would you
2 like to know?

3 Q. Is there anything in the cockpit that would tell a crew that
4 it's not working?

5 A. Yes.

6 Q. What?

7 A. You could have a low fluid level.

8 Q. Okay.

9 A. You could have a pump failure. That's about it. You also
10 have a probe that determines when you're in icing or not. That
11 can give you a warning that you're in icing conditions. It
12 doesn't necessarily tell you that you haven't selected or the
13 system has failed, but icing is -- you're in icing.

14 Q. Okay. Is there any way for let's say the left wing to get
15 fluid and the right wing not or for the wings to get it but maybe
16 not the tail? I mean it's mechanical. I get it.

17 A. Okay.

18 Q. There's always a way but --

19 A. Yeah. There is a pump and a manifold and tubes go to the
20 leading edge, left and right, and to the tail. Is it possible for
21 one of these tubes that lead to the leading edge of the wing to
22 break, and be pumping fluid into the leading edge area but not out
23 the mesh? Yes, that's possible. Is it possible for -- you've
24 flown through some kind foreign material, a dust storm, some kind
25 of contaminant has blocked the leading edges and then a certain

1 portion is not -- the gel cannot permeate, cannot come out of the
2 leading edge. Is that possible? Yeah. Is it possible -- there's
3 a single manifold. I could draw you a diagram, but that won't
4 help you on this. A single manifold behind each leading edge that
5 is approximately the length of the TKS, matted surface of the
6 wing. At various points, there's a pickoff that would go to each
7 individual mesh surface. So there may be six or seven mesh
8 surfaces. So there are seven feeds. Could one of these feeds
9 break? Could one of these feeds pop off the manifold? Possibly.
10 I'm guessing.

11 Q. But for a moment, if that would happen, is there a notice --
12 is there a way the crew would know that?

13 A. If they were looking and staring at the leading edge, looking
14 at the leading edge and saw it carefully, maybe you could tell ice
15 being formed on a certain section. Maybe. At night, obviously
16 there is a deice light, and anti-ice check light, but you have to
17 have good eyes for that.

18 Q. Um-hum.

19 A. So is that possible? Yeah.

20 Q. Okay. How is it easy from the cockpit to see the leading
21 edges?

22 A. The inboard -- well, look at the Gulfstream behind you. From
23 the area -- from about here in, as you're peering out the window,
24 you simply can't see the area, the leading edge of the wing
25 closest in to the cockpit.

1 Q. Okay.

2 A. So could it be possible that this panel has failed, the tube
3 has failed. The others are working fine. Could ice have
4 accumulated right here and you might not see it? Absolutely.

5 Q. Okay. Yeah. By you're going to see from -- I'm getting a
6 general number here, a third of the wing or two-thirds of the
7 outboard wing you could probably see?

8 A. I'd go for an approximate for that.

9 Q. Okay.

10 A. Yeah.

11 Q. Okay. I just wanted to try and visualize if I'm sitting
12 there, what I can see if I'm --

13 A. And --

14 A. -- or if I'm doing stalls or whatever. That's what I'm
15 trying to learn from.

16 A. Again, this works very well but it has its limitations. If
17 you don't turn it on promptly as you enter the ice, these meshes
18 will have an ice build up on them, and you won't have enough
19 pressure to clear that ice. So it is an anti-icing, not deicing,
20 not boots, not a hot wing where you can turn it on and most of the
21 time the hot wing will just pop the ice right off. This is a
22 little different breed of cat.

23 Q. Um-hum.

24 A. Does that answer the question?

25 Q. It does. It does. And I'm just curious if -- is there -- is

1 it a hard deicing system for pilots to learn if they've come from
2 boots and hot wings?

3 A. Hard?

4 Q. Just the concept that, oh, I have to get it on first or, you
5 know, if it seals over the front leading edge, I could be picking
6 up icing and I can't get rid of it.

7 A. It's really pretty simple.

8 Q. Okay.

9 A. And I've transitioned from airplanes with pneumatic boots and
10 hot wings and I understood it about 5 seconds into it.

11 Q. Right.

12 A. It's a simple pump that pumps this goo out the leading edge
13 of the wings.

14 Q. Okay.

15 A. It works generally pretty well.

16 Q. Perfect. That's what I want to hear. I just wanted to make
17 sure. I didn't want to assume.

18 A. Okay.

19 Q. That's always the worst thing for me to do.

20 A. Understood.

21 Q. In the sim when you're doing stalls, how critical is the CG?
22 You know, when you do a weight and balance, you know, okay, here's
23 where we fall in the CG line. If it's more forward or more aft or
24 how critical is that?

25 A. I guess further aft could make it more critical. Forward, I

1 typically put it right smack dab in the middle, but forward -- aft
2 would give you -- would make it more critical. Forward would make
3 it easier I suppose, if I remember my basic airmanship.

4 Q. Okay.

5 A. I try and keep them in about the same place all the time so
6 there's no surprises.

7 Q. Okay. All right.

8 A. Where a typical loading would be on the airplane which is
9 what they're most likely to encounter.

10 Q. So, two pilots, and that's all in the airplane and fuel.
11 Would it be in your experience, opinion, whatever you want to give
12 me, would it be a more forward, more mid range CG or would it be
13 more aft for some reason?

14 A. This is opinion.

15 Q. Um-hum.

16 A. Where's the fuel? What's the fuel loading?

17 Q. In the wings, and I don't think there's any in the back.

18 A. Did they have any in the back?

19 Q. I don't think so.

20 A. So full wings. That would be a fairly -- a somewhat forward
21 CG.

22 Q. Okay.

23 A. That would make it slightly easier to fall (ph.) and recover
24 because the center pressure would be back here, the CG being a
25 little forward of that, it would pitch down a little more

1 aggressive. However, maybe the stick pusher when it'd fire would
2 be a little more aggressive because the CG was forward.

3 Q. Okay.

4 A. Would have a more aggressive effect.

5 Q. Okay. Okay. If it was more aft, how would this plane handle
6 it? I mean if it was forward, it would be more impressive on the
7 pusher. So I'm going to assume aft would be more gentle.

8 A. Well, less aggressive and if I recall, stalls are more
9 difficult with aft CG. But again, I haven't really drilled into
10 this. So I'm giving you --

11 Q. Yeah, I'm just trying to, you know.

12 A. This is basic guess work opinion.

13 Q. Yep.

14 A. I'm not an expert.

15 Q. That's okay. I'm just -- I know you have the experience, and
16 I wasn't sure how this plane handles with a CG moving. If it's --

17 A. I took aerodynamics for naval aviators in 1973. Okay.

18 Q. I'll give you, hey, you've got better recall than I do on it.

19 A. Okay. That's 50 years ago.

20 Q. Yeah.

21 A. Okay.

22 Q. Understood. And, no, this is not a checkride. I'm just --
23 with your experience, I just want to make sure. I understand. I
24 can kind of visualize what the fields would be for a crew. All
25 right. Perfect. How do you -- this will be my last little batch

1 of questions, and then we can either take a break or I'll let Kat
2 ask the really good questions.

3 How do you determine on a sim what kind of anomalies or
4 abnormal conditions a crew gets? Is it in your syllabus for that
5 sim session? Is it, you know, you have to do so many and you get
6 to choose? Kind of help me understand, how would you choose?

7 A. It'll say system malfunction. So you have to give them a
8 couple of electrical malfunctions, a hydraulic or two malfunction,
9 a pneumatic malfunction. There's a norm that we typically do, and
10 I try and keep it the same for just about everybody. So a
11 generator failure, an inverter failure, a TKS pump failure, an
12 anti-ice failure, a fire, an engine overhead, an aft bay overheat.
13 I try and give them the same bag of tricks and nothing -- the most
14 common that they would receive.

15 Q. Okay.

16 A. So, I watched other instructors, and we typically watch and
17 try and come up with the same general game plan. I don't perform
18 anything weird. I don't do anything crazy. There was an
19 instructor, as an aside, years ago in a Hawker who would do a
20 cable failure which would decelerate -- deactivate your elevator,
21 and you would have to land it with no elevator. And, I kind of
22 think maybe there's somebody still doing that. I think that's a
23 little extreme. So I don't do that sort of thing.

24 Q. Okay. They don't -- CAE doesn't prescribe --

25 A. There are things that we have to cover.

1 Q. Okay.

2 A. You know, system failures and they give us specific systems
3 and pieces to fail.

4 Q. Okay. So it's not, okay, you need a systems failure so you
5 choose. It's not necessarily that much latitude.

6 A. It's a general here's what we expect of you.

7 Q. Okay.

8 A. But, do I give them a generator over volt of 33 or do I give
9 them a generator over volt of 31.

10 Q. Okay. All right.

11 A. Do I -- is the engine on fire? Is it the left or is it the
12 right engine? Well, I can choose, but they're similar.

13 Q. Okay. Okay. No, that helps a lot, and I know you've been
14 talking to me for a little bit. So I appreciate it.

15 A. Yeah.

16 Q. I'll let my brain kind of sit there and absorb.

17 A. Okay.

18 Q. And I know Kat always asks good questions, and I'll probably
19 have more from hers, too, for round two. But before I pass you
20 off, do you need a break?

21 MR. ROSS: Anybody need a break?

22 MR. SHIARELLA: No, I'm good.

23 MR. ROSS: I'm good.

24 MR. ETCHER: Okay.

25 MR. ROSS: Kat, you good?

1 DR. WILSON: I'm good.

2 MR. ETCHER: All right.

3 MR. ROSS: If I need another cup of coffee, I'll let you
4 know.

5 MR. ETCHER: All right. Okay.

6 DR. WILSON: You can get one at any time.

7 MR. ETCHER: Then, with that, Kat.

8 BY DR. WILSON:

9 Q. Well, apparently I've taught Shawn well because he asked a
10 lot of my questions, a lot of the ones that I had written down.
11 So I don't have too many. Do you recall when Darrin had come in
12 for training, did he have the same sim partner for all of the sim
13 sessions?

14 A. This is a feeble 70 year old memory. I believe so, but I
15 can't be certain.

16 Q. All right.

17 A. I remember walking to the sim, and not to make this a joke,
18 three of us have less hair than most, and we walk in there, and I
19 go, three bald guys walk into a sim, and I thought that. So I
20 believe it was the same fellow.

21 Q. Okay. Did Clay Lacy have any -- were there any Clay Lacy
22 specific modules that you would teach in the sim or --

23 A. Each operator has, and I think I may even have a copy of it
24 here, specifics that they need done for their footprint, and it
25 might be we need a 500 RVR takeoff. We do Aspen a lot. So make

1 sure the guys see Aspen or Eagle or I want to make sure they do an
2 RTO at the lowest possible visibility, and that will be noted in
3 here. We need to see an LDA approach and we have to search for
4 that kind of approach to make sure they get it. Or we need a back
5 course and there's not a lot of back courses left, but there's a
6 few airports that we could drill down and find a back course. The
7 customer comes in with what they need, and we do all we can to
8 provide it.

9 Q. Okay. Looking at Darrin's training records and the crew
10 resource management particularly on sim 6, which I think was
11 yours, right?

12 A. I believe it was.

13 Q. I know we talked a little bit about, you know, why this day
14 was maybe, you know, he was off that day but when you're
15 evaluating CRM it's from both the left and the right seat?

16 A. It's crew based.

17 Q. Yep. So, what are you looking for I guess at a high level?
18 You know, if we're seeing, you know, some of the things like
19 situation awareness I think is one of the items, where he
20 struggled with. What are you looking for? What did you, if you
21 recall, you saw? But what would get the meet standards for some
22 of those?

23 A. Okay. I can't -- I have a vague recollection of his CRM
24 level in a general view. I want a crew to communicate. Before
25 somebody puts something in a FMC especially or flips a switch that

1 could have a negative effect on the flight, even if it's an hour
2 from now, I want the crewmembers to know what's going on. It
3 doesn't even have to be verbal. They could be a whistle and a
4 point. It could be a Tim Allen sort of grunt, but making sure
5 that everybody knows what's in the box. When somebody sees
6 something and I can see from the back of their head that they're
7 twitching, say the fellow in the right seat, I need him to be able
8 to vocalize what's going on in his head and the captain receive
9 it. Things like that.

10 The guy in the right seat dials down the altitude to below
11 14,000 in the middle of the Rockies on an emergency descent. I
12 need him to say, skipper, did you want me to put 16 here? And I
13 want the captain to be able to say, good idea. Thank you. But
14 when I see him, the FO squirm as he's spinning it down to 12,
15 knowing that he's not doing the right thing, and he's not able to
16 speak to the captain about it, I consider that a CRM down in a
17 general situation. As for the specifics here, it's a year old.

18 Q. I appreciate just a little bit of insight. So.

19 A. Ultimately it's the use of all resources to come out with the
20 best possible decision, and any time that doesn't happen, it's a
21 degradation.

22 Q. How are you able to discern, you know, CRM being a crew. So,
23 for instance, you know, in this case, Darrin got a number of 2s in
24 CRM. His partner perhaps got 3s. How do you distinguish the crew
25 part into individual pilots?

1 A. Okay. That's a good answer -- a good question. Let's say
2 the FO says, do you want me to set 16,000? we're over the
3 Rockies. And the cap says, no, 12 will be good. So the FO
4 attempts to broadcast. He transmitted his message. However, he
5 didn't do it with enough -- in an assertive manner as possible.
6 How's that for an ancient buzz word? And, hence the captain did
7 not receive the message. The FO then could fail by not stepping
8 up to being more assertive or, skipper, the Rocks are at 14 here,
9 and we better set 16. I would give the FO a down for -- a
10 degraded mark but the captain a true down because he wouldn't even
11 listen.

12 Q. Okay.

13 A. Does that answer the question?

14 Q. Um-hum. And, does CAE do any CRM training? How do the
15 pilots know when they're coming in that they need to act as a
16 crew? Have they received that training before coming to CAE or is
17 that a part of the --

18 A. There is a CAE course, but I -- if you look at my shirt, and
19 this is from ancient CRM stuff, it appears to be blue. But if you
20 look very carefully, it's a blue shirt with little white threads
21 in it. Basically blue, but the CRM is now a thread that's been
22 embedded in all that we do. So, when I give the briefing, my
23 expectation is that you will communicate and you will share
24 information that the best teams communicate together. So we start
25 with that. If you see something wrong, you need to. So I give

1 some CRM in the beginning of every class. There is a formal CRM
2 class here. I don't know how many use it or I don't know a fellow
3 that teaches any more. He apparently left not long ago. But I
4 used to teach CRM as I said for Continental and for Copa and for
5 Pakistan Airways. So.

6 Q. Okay. Is there an expectation when pilots come here that
7 they will have some sort of understanding of CRM?

8 A. We get pilots from all over the world. We get pilots,
9 seasons master aviators, aviatrixes, that have, you know, 20,000
10 hours and they're getting transitioned to this little baby jet.
11 Their knowledge of CRM is probably pretty good. From the airline
12 of the formalized world, it's probably even better coming from a
13 university background where Embry-Riddle is teaching it. Yay.
14 The 350 hour young aviator may not have that background. He may
15 have read a book or may have read an article but it isn't the
16 same. So I try and include snippets (ph.) as best I can but it's
17 hard to give them 10 years of training, of routine training in a 2
18 hour module.

19 Q. Um-hum. I guess I'm just trying to understand how a pilot
20 can be evaluated fairly on CRM if they haven't received CRM
21 training, and I'm not saying it's on CAE to do that, but is there
22 -- but like I said, is there an expectation that pilots at this
23 level have been flying, maybe crewed, and they've -- or that their
24 company is teaching them that?

25 A. That is a good question. And, I suppose virtually everybody

1 who's gotten past the basic point of flying has had some CRM
2 exposure. I do what I can to add to it, but unless we have the
3 ability to sit down for a 3, 4 day course.

4 MR. ROSS: You were at -- which regional if I might ask?

5 MR. ETCHER: Comair.

6 MR. ROSS: Okay. How many days of CRM did you guys have?

7 MR. ETCHER: It was a long time ago, but it was a couple at
8 least.

9 MR. ROSS: Yeah. I know it was embedded in the training
10 footprint.

11 MR. ETCHER: Um-hum.

12 MR. ROSS: We do what we can to embed it in the training
13 footprint here, but I can't give them -- if you want to talk about
14 it further when the -- when we're done with this, I'd be happy to
15 sit down and have a cup of coffee.

16 MR. ROSS: What else do you have, Kat?

17 BY DR. WILSON:

18 Q. The situation where you said you were in the Hawker and got
19 the pusher, what was the situation? What was leading up to that?
20 Were you intentionally learning?

21 A. I was -- I just finished my bounces in the airplane. We
22 rotated seats. The instructor in the left seat, yours truly in
23 the right seat. And it was a demo to show you what -- it was a
24 qualified instructor. The fellow's name was Ross Nigh (ph.). He
25 was a lead instructor for the Hawker out of Wilmington. He

1 probably had 5, 10,000 hours in type, and it was checked out. I
2 think he was an ex-Naval test pilot. So he knew, which is
3 probably leading to your next question. Okay. Ross knew what he
4 was doing and wanted to show me perhaps to put a little bit of
5 caution into my guts.

6 Q. Um-hum. Are you familiar with the stall test that you would
7 do following like a maintenance procedure?

8 A. I can do it on a 73, but this -- I know there is one. I've
9 never done an actual one after a maintenance. I don't know enough
10 to speak to it.

11 Q. Have you ever heard -- you mentioned, you know, killing the
12 pusher if, you know, maybe, you know, if you got it at low
13 altitude and it was some erroneous thing. Would anyone ever do
14 that if when running one of these stall tests?

15 A. I don't know enough about the actual procedure of the stall
16 test. I don't know whether they do the stall test with the stick
17 pusher activated, if there's a way to kill it, pull the circuit
18 breaker. I can't speak to it. I don't know.

19 Q. Okay. And then when Shawn was asking you about pushing the
20 buttons, you said that it was a temporary override.

21 A. That is correct.

22 Q. Is it temporary until you shut down the airplane, temporary
23 time, once you remove your finger or --

24 A. Once you remove your fingers.

25 Q. Okay. Are you aware if there's any kind of training for

1 doing the stall test?

2 A. I'm not aware. There must be, but I don't know anything
3 about it.

4 Q. Somebody has to know how to do it, right? I mean those
5 people who showed you how to do it, they have to have some kind of
6 knowledge.

7 A. They do. I don't know who teaches it or where that comes
8 from.

9 Q. Please remember, I don't know is an okay response. All
10 right.

11 DR. WILSON: I actually -- Shawn, you actually covered --
12 like I said, I deleted a lot of the questions I had because you
13 were asking them, too.

14 MR. ETCHER: Sorry. You'd ask them probably way better than
15 I would.

16 DR. WILSON: Well, leave them for me next time.

17 MR. ROSS: That was it?

18 DR. WILSON: I mean maybe when Shawn's round two comes up,
19 I'll have a couple of more, but not right now.

20 BY MR. ETCHER:

21 Q. I don't even have that many. So my round two is not going
22 last long because you've given me a lot of information. I just --
23 I want a little clarification. Round two is always quicker, but
24 do you need a break before we start?

25 A. No, I'm good. Let's go.

1 Q. All right. Let's talk about pushing the buttons for the
2 stick pusher and override since you were just talking that just a
3 second ago, a couple of minutes ago. It's temporary. As long as
4 I'm pushing both buttons, it's not going to push.

5 A. I teach my guys to push and hold.

6 Q. So, if I'm at -- up in flight, and I get an inadvertent
7 pusher because it's malfunctioning, I have to press those buttons
8 and hold it until we get to the ground?

9 A. Now, there is a circuit breaker you can pull --

10 Q. Okay.

11 A. -- I believe.

12 Q. Okay.

13 A. But I never -- I don't think I've been trained on it. I
14 don't recall.

15 MR. SHIARELLA: I can't remember.

16 MR. ROSS: He's a Falcon guy, but he doesn't know. I think
17 the warning is what we teach is that on takeoff, if it were to
18 fire, here's the buttons you have to push right now to save your
19 butt. That's about all I teach.

20 BY MR. ETCHER:

21 Q. Okay.

22 A. I don't -- that's all I teach. That's good enough.

23 Q. So on takeoff, you teach them just to press and hold it?

24 A. Yeah.

25 Q. So, now, I realize maybe I'm not visually acquiring the

1 cockpit in my brain, but if I'm holding two buttons with one hand,
2 with the two fingers, and I'm flying with the yoke, how can I
3 bring this thing around and land? Help me kind of understand how
4 you would teach that.

5 A. First Officer Smith, push those buttons for me.

6 Q. Okay. So you don't expect the captain or the pilot flying
7 to --

8 A. Initially to grab hold stop.

9 Q. Okay.

10 A. And then thereafter.

11 Q. Okay. I just wanted to make sure. I would assume that was
12 it, but assuming doesn't do me any good. I'd rather have facts.
13 I think Kat had asked if the event pilot was paired with the sim
14 partner through training. And you got probably maybe likely
15 because you all were bald just like I am. So we'd all blend in
16 just fine.

17 A. I believe so. Is there any way you could check it?

18 MR. SHIARELLA: Right here. We got it. Kirks (ph.) is
19 the --

20 MR. ROSS: Someone from this company.

21 MR. SHIARELLA: Just the S7 --

22 MR. ROSS: Second S7.

23 MR. SHIARELLA: The second S7 was a different right seater.

24 MR. ROSS: Okay. That answers the question.

25 BY MR. ETCHER:

1 Q. Okay. I just wanted to make sure, you know. I thought I had
2 read that right before, but just in case. So, is that normal in
3 training to be paired with the same person, same company? I mean
4 I assume with the company, if they have two people coming at once,
5 they're probably going to want paired together?

6 A. Um-hum.

7 Q. But I just wasn't sure if they sent three, it would be normal
8 for that third odd person to be paired up with the same seat mate?

9 A. Typically they try and keep students together so you don't
10 keep swapping. That way you learn from the other student, and
11 you've acquired some familiarity with the other fellow.

12 Q. Um-hum. Okay. In your experience here, how would you -- I'm
13 asking for an opinion. So don't worry. It's just an opinion.
14 How would you classify pilot experience coming into these
15 airplanes? I mean you hear all the time, you know, airlines, you
16 know, are starving for pilots. We need more. Well, they were.
17 You know, we need more. So they're taking everything and, you
18 know. How do you find pilot experience in your opinion?

19 A. Opinion? It runs the gambit.

20 Q. Okay.

21 A. From highly experienced individual to the lower time folks.
22 It's all over the place.

23 Q. Okay.

24 A. The Hawker is a 135 airplane, and it's typically at the lower
25 end of the 135 scale. So many times we see very, very low

1 experience 500 hour pilots getting into their first jet with 20/50
2 hours of multi. That's a challenge sometimes.

3 Q. Um-hum. Okay. Is that a challenge on you teaching them or a
4 challenge on them learning it?

5 A. Both.

6 Q. Both. Okay.

7 A. Again, we come back to the -- we all want, everyone of us
8 here at CAE wants these people to walk out the door with a smile
9 on their face, knowledge in their back pockets, safe, competent
10 and sometimes it takes a little extra. That's okay. When you
11 first flew a jet --

12 MR. ROSS: Let me ask you, Kat. You get into a jet for the
13 first time, how much jet time do you have?

14 DR. WILSON: I don't have any jet time.

15 MR. ROSS: Could it be a handful for the first few hours?

16 DR. WILSON: Absolutely.

17 MR. ROSS: So you make sure you get an extra, if you can, bit
18 of hand flying time. You give them what they need to make sure
19 they succeed. That's why we're here.

20 BY MR. ETCHER:

21 Q. Okay. All right. I know you pulled out the training
22 syllabus there and you said Clay Lacy wants take off and landings
23 out of Aspen or Eagle, 500 RVR.

24 A. Um-hum.

25 Q. They have specific requirements.

1 A. Yeah. Take a look.

2 Q. Yeah.

3 A. Right here. They want 600 RVRs. They want to make sure they
4 get a back course, an NDB DME, needle based. Where do we find
5 that?

6 Q. Can you?

7 A. Yes. Yes, we can. You do everything you can to follow this.
8 You brief it and then discuss it if possible, but you do. That is
9 what they want, and they're the customer and they're paying for
10 it.

11 Q. Okay. So, if my company, XYZ, whoever they are, sent me here
12 to be trained and said, I want you to train Shawn and all of our
13 pilots the same way. I want them to be taught stalls to the
14 shaker, but I also want them to be taught stalls all the way to
15 pusher. Can you do that?

16 A. Well, they are taught to push activate. Do you mean beyond
17 the pusher?

18 Q. Yeah, I mean I want to know how -- if they got into a bad
19 situation, can you do that?

20 A. I think we discussed this, that they do get pusher
21 activation.

22 Q. As a demonstration.

23 A. As a demo. Well, they're flying it. So they are taught --
24 it's a demo, don't do this. This is what happens. Here's how you
25 get out of it. What exactly are you asking beyond that?

1 Everybody -- every student who comes through here gets three
2 aerodynamics, stick shakers, and then a pusher.

3 Q. The pusher is a demonstration, not a graded --

4 A. That's correct. Yes.

5 Q. So, I assume with these, that their personal requests are
6 graded?

7 A. Yes.

8 Q. So, if they wanted me to be graded on a pusher, is that
9 something that could be done?

10 A. That's above my pay grade. I'd have to talk to my boss. I
11 don't --

12 Q. Let me ask it a little differently.

13 A. I don't know.

14 Q. Has that ever been asked of you to grade a pusher?

15 A. Grade? No.

16 Q. Okay.

17 A. But if you talked to my boss, my program manager, and that's
18 added to the syllabus, that's what I'll teach.

19 Q. Okay.

20 A. Wow. Good question.

21 Q. How would you teach that? I'm kind of curious. I know it's
22 an all hypothetical. I'm trying to figure out if for some reason
23 they would have gotten a pusher, what --

24 A. I don't know.

25 Q. Okay.

1 A. Whatever they write up in the syllabus is how I teach it.

2 Q. Okay.

3 A. I don't have -- I'm a civilian pilot. I don't have a
4 military test background. I have some test on Boeing airplanes
5 which are certified and we know what they're going to do and
6 there's a big manual as to what it's going to do. I don't know,
7 and I'm not going to -- I'm not here to be a test pilot, right.

8 Q. Okay. I just -- I wanted to make sure, you know, when you
9 say that they can request stuff, if they requested this, how would
10 you do that and grade it.

11 A. As an example, San Francisco has parallel PRMs. I think they
12 still do. Some operators require a PRM. So we teach a PRM. It
13 doesn't require any test background. It's just a different
14 approach with a couple different techniques of monitoring that
15 extra frequency and doing the approach like that. That's easy.
16 But something --

17 Q. No, that helps. So --

18 A. Okay.

19 Q. -- I know it probably seemed like a weird question, but that
20 did help me actually in my brain kind of formulate a few things.
21 So I appreciate that.

22 A. Okay.

23 Q. But I think you have answered all of my questions. So I'm
24 going to see if Kat has any more.

25 MR. ROSS: Two more?

1 BY DR. WILSON:

2 Q. I don't know if it's two, but I have one.

3 A. Please.

4 Q. When there is stick shaker activation, and I guess all the
5 way to pusher, should you get that far, does the panel monitoring
6 have any call outs or is it just all action by the pilot?

7 A. Stall, stall, as the initial shaker comes on is typically
8 what I want to hear. Now, naturally you would have to be -- the
9 shaker will wake the dead and the pusher will -- you'll notice it
10 very quickly but just to make sure, the right seater should be
11 saying -- the monitoring pilot should be saying, stall, stall.

12 Q. And at CAE, is the pilot flying always in the left seat?

13 A. No. Some operators require training in the right seat. In
14 fact, I'm doing it with a couple of students today, and they're
15 required to have right seat takeoffs and landings. Typically a
16 junior pilot who is maybe only an SIC or a senior pilot who is a
17 check airman and instructor, would have to do a couple of landings
18 in the right seat. Three landings is what I'd like to see over a
19 training footprint to make sure they're current and qualified.

20 Q. Do you know if Clay Lacy requires any training by the pilot
21 flying from the right seat?

22 A. It would say here someplace. I don't see a note, but it
23 would -- on a training request sheet, it would say requires right
24 seat landings and in our electronic, it would note it. And if a
25 fellow is going to be a check airman, I think it's a prudent idea.

1 Q. I think I do recall something in their training records at
2 least saying that, you know, this is a two pilot operation and
3 there was some notes about it, but I don't remember if there was
4 anything about landings.

5 A. More challenging in a RTO from the right seat. I make sure
6 they get all of that.

7 Q. If its required by the operator?

8 A. Absolutely. I don't privateer. Yeah, okay. I'm looking at
9 this, that Darrin was right and left seat trained, and if it said
10 it in the --

11 Q. Okay. That's what that would mean, right seat --

12 A. Yeah, Yes SIC (ph.).

13 Q. Gotcha.

14 A. I didn't see that in here unless I missed it. 600 RVR.

15 MR. SHIARELLA: It should be the next page.

16 MR. ROSS: Here it is.

17 MR. SHIARELLA: Oh, there you go.

18 MR. ROSS: Yep.

19 BY DR. WILSON:

20 Q. How do you know -- I guess if it says something like that, is
21 it -- do you run through all of the simulator scenarios from the
22 right seat and left seat or is it just a handful that you get in
23 the right seat?

24 A. Just a handful. It says basic takeoffs and landings. So in
25 theory, it could be just a normal takeoff and landing. I like to

1 include an RTO because that's most challenging. I understand they
2 might not ask for it, but I make sure that they're qualified and
3 current.

4 MR. SHIARELLA: Yeah.

5 DR. WILSON: All right. Thank you. I don't have anything
6 else.

7 MR. ETCHER: Thanks, Kat.

8 MR. ROSS: Thank you.

9 BY MR. ETCHER:

10 Q. Well, you've made it through both rounds. But, I'm always --
11 we're always so fearful that we'll ask a thousand questions but,
12 you know, you knew we were coming to ask questions about this, and
13 you're probably like, oh, they're going to ask about whatever.
14 And then we don't. I'm always afraid. Is there something that
15 you think, man, if they would have asked this or this might help
16 them understand the pilot, understand the training, understand
17 whatever better, can you think of anything like that?

18 A. Yeah. It's directed at Kat, and I touched on it earlier. We
19 have a student who does well, okay, through periods 1, 2 and 3.
20 And then falls apart with enough major mistakes of basic judgment,
21 not necessarily airmanship. What does that signify? Where are we
22 at? I can't say what was inside the guy's head, but obviously he
23 had some family issues. If he did poorly with me on Tuesday and
24 Thursday he does okay, then he must have gotten something resolved
25 or just mentally took a breather, pulled up his socks and went to

1 it. That's all I have.

2 BY DR. WILSON:

3 Q. So a follow up to that.

4 A. Please.

5 Q. When a student doesn't do well, do you follow up with the
6 next instructor, sim instructor or is it a requirement that that
7 instructor look at these notes from the previous sim session?

8 A. I think I touched on that with you, Shawn. A sim instructor
9 will typically pass on, I just had Bob, and he had some issues. I
10 don't want to put more into the next instructor's head to have him
11 focus on -- I want him to look at the individual as objectively as
12 possible. So there's a fine line between telling the instructor
13 that somebody had an issue and telling, he was terrible at A, B, C
14 and D. He can also look at the notes that I left which would give
15 him a good idea.

16 Q. The notes, do they disappear or are they -- I mean are they
17 just for instructor's eyes only or will they make it into the
18 final training records?

19 A. Well, that's a question above my pay grade.

20 MR. SHIARELLA: That's a really good question. You have to
21 make note -- you have to make notes if you score a 1 or a 4, and
22 the notes go into --

23 MR. ROSS: Or 2.

24 MR. SHIARELLA: Or a 2.

25 MR. ROSS: I always put notes for 2.

1 MR. SHIARELLA: And the notes go into Gemini.

2 MR. ROSS: Um-hum.

3 MR. SHIARELLA: Can I get back to you guys on that question?
4 Because that's a really good question because I remember when I
5 spoke with Dave yesterday, he told me that he made notes but we
6 don't, we don't have them. So the question is where did the notes
7 go. Let me find out because it's a good question.

8 BY DR. WILSON:

9 Q. And so the notes are in a computer system. They're not like
10 a handwritten note that gets --

11 A. No, I document it so that it's where it's supposed to be.
12 Don't invent stuff.

13 Q. Okay.

14 MR. ETCHER: Good.

15 DR. WILSON: Yes.

16 MR. ROSS: Excellent.

17 MR. ETCHER: Well, with that, let's call this interview
18 concluded at 16:04 local.

19 (Whereupon, at 4:04 p.m., the interview was concluded.)
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25

CERTIFICATE

This is to certify that the attached proceeding before the
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FATAL HAWKER 900XP ACCIDENT
NEAR WESTWATER, UTAH
ON FEBRUARY 7, 2024
Interview of David K. Ross

ACCIDENT NO.: WPR24FA083

PLACE: Whippany, New Jersey

DATE: September 12, 2024

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.


Kathryn A. Mirfin
Transcriber