

DCA23FA149

OPERATIONAL FACTORS

Attachment 2

SWA Pilot Interviews and Transcripts

July 31, 2023

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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FEDEX CARGO PLANE & SOUTHWEST
AIRLINES BOEING 767 INCIDENT AT
AUSTIN INTERNATIONAL AIRPORT, IN
AUSTIN, TEXAS ON FEBRUARY 4, 2023

Accident No.: DCA23LA149

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Interview of: DAVID C. ELLIOTT, Pilot
Southwest Airlines

Via Zoom Videoconference

Thursday,
February 16, 2023

APPEARANCES:

WARREN ABRAMS, Operations Group Chairman
National Transportation Safety Board

DUJUAN SEVILLIAN, Ph.D., Human Performance Investigator
National Transportation Safety Board

MATT RIGSBY, AVP-100
Federal Aviation Administration

CRAIG JAKUBOWSKI, Southwest Airlines pilot
Southwest Airlines Pilots Association

KEVIN FERGERSON, Southwest Airlines pilot
Southwest Airlines Flight Operations

DAVID HARRINGTON, Esq.
Condon & Forsyth LLP
On behalf of David Elliott

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I N T E R V I E W

(10:58 a.m.)

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2
3 MR. ABRAMS: David Elliott, I'm Warren Abrams with the NTSB.
4 You about ready to go this morning, you --

5 MR. ELLIOTT: I just jumped right in, yeah, it's -- I'm
6 ready, sir.

7 MR. ABRAMS: All right, thank you. If you need more time,
8 let us know.

9 MR. ELLIOTT: No, I think I have everything here. We'll move
10 along as we need to, if I need to find something or anything,
11 we'll go from there. I think I have it with me here.

12 MR. ABRAMS: All right, thank you. Do you go by Dave or
13 David or what do you -- what's your preference?

14 MR. ELLIOTT: I have no preference, whatever's easy.

15 MR. ABRAMS: Well, we got two Daves on the call today, your
16 counsel and yourself, so we'll call you Dave and -- for right now,
17 Dave Elliott, so we'll go for that, so thanks.

18 Everybody else ready?

19 (No audible response.)

20 MR. ABRAMS: I'm going to jump in, then. Dave Elliott, as I
21 said just a minute ago, I'm Warren Abrams, I'm the ops group
22 chairman with the NTSB -- with this investigation from the NTSB
23 and our role is to gather information, gather data for the event
24 that took place on February 4th with Southwest 708 that you were
25 the captain on. To help us gather that information, we select --

1 we have group members and they're, as you can see, on the video
2 call with us and -- excuse me -- I will ask them to go around the
3 virtual room here and introduce themselves so you'll know who
4 you're talking to.

5 Dujuan, if you'll lead us off, please.

6 DR. SEVILLIAN: Yes, Dave, this is Dujuan Sevillian. I'm a
7 human performance investigator for the NTSB.

8 MR. ABRAMS: Thank you, Dujuan.

9 Matt.

10 MR. RIGSBY: Yeah, good morning, David, this is Matt Rigsby
11 with the FAA's Office of Accident Investigation and hopefully,
12 just to give you some solace, I have no enforcement authority, so
13 anything you say here can't -- is part of the safety investigation
14 and won't make it outside this group and cannot be used for any
15 enforcement, so just take solace in that, I'm not the FAA with the
16 black hat here, so --

17 MR. ABRAMS: Thank you, Matt.

18 Kevin.

19 MR. FERGERSON: Good morning, David. Kevin Ferguson,
20 Southwest Airlines flight ops, I'm a pilot with Southwest.

21 MR. ABRAMS: Thank you, Kevin.

22 Craig.

23 MR. JAKUBOWSKI: Good morning, David, Craig Jakubowski,
24 Southwest Airlines Pilots Association.

25 MR. ABRAMS: Thank you.

1 And Scott, tell us your reason that you're here today.

2 COURT REPORTER: Yeah, I'm Scott Chervinski, I'm the court
3 reporter for today. I work for Free State Reporting based out of
4 Annapolis, Maryland.

5 MR. ABRAMS: Thank you, Scott.

6 Dave Elliott, as part of this interview process you're
7 allowed to have someone represent you, do you have a
8 representative today?

9 MR. ELLIOTT: Not personally. I have counsel with SWAPA and
10 it's David Harrington.

11 MR. ABRAMS: Good. And David, introduce yourself for the
12 record, please.

13 MR. HARRINGTON: Sure, David Harrington, Condon & Forsyth,
14 New York, representing Captain Elliott.

15 MR. ABRAMS: Thank you. And Dave Harrington, I'm happy to
16 have that conversation again that we had on the last interview, if
17 you'd like to have it again this time for the record, as well, I'm
18 happy to have it.

19 MR. HARRINGTON: Sure, I just confirmed that other than the
20 court reporter, no one is recording this interview with Captain
21 Elliott.

22 MR. ABRAMS: That is a true statement, I am not recording on
23 Zoom, I don't have a cell phone recording, and I will not receive
24 a recorded copy from Scott or Free State after the interview.

25 MR. HARRINGTON: That's great, that's great. Just confirm

1 that no audio will be, like you said, obtained or retained by the
2 NTSB and we're good to go.

3 MR. ABRAMS: That's a correct statement, thank you.

4 All right, Dave Elliott, you ready to rock and roll, sir?

5 MR. ELLIOTT: Yeah.

6 MR. ABRAMS: Yeah, a sharp stick in the eye, right?

7 (Laughter.)

8 INTERVIEW OF DAVID C. ELLIOTT

9 BY MR. ABRAMS:

10 Q. All right, let me -- Dave, how I start these off is we get
11 the little -- I'll call them softball questions, your experience,
12 how long you've been at Southwest, and I'll pass some general
13 topic stuff before we get down into the -- the takeoff there at
14 Austin. So then once we get into the takeoff at Austin, I'll just
15 kind of let you take us through the whole scenario -- excuse me --
16 and then will pick up some questions and answers after that.

17 And all this group will be having some questions for you, as
18 well. We don't go onesie-twosies, I ask a myriad of questions and
19 then once I'm finished, then we'll go around the virtual room and
20 each individual will ask their questions, so that's kind of the
21 program of how we do this. So to get it started, Dave Elliott, if
22 you will state your full legal name and spell your last name,
23 please.

24 A. David Colin Elliott, E-l-l-i-o-t-t.

25 Q. Thank you, Dave. And how old are you?

1 A. I'm 54.

2 Q. And what is your job title?

3 A. Captain, Southwest Airlines.

4 Q. And how long have you been at Southwest Airlines?

5 A. I transitioned over from AirTran in '14, so about 9 years.

6 Q. Since you mentioned AirTran, give us a background of your
7 flight training, whether you're former military, civilian, where
8 you got your flight training, and airlines you worked for or
9 companies you worked for.

10 A. I did all of my flight training as a civilian down in South
11 Florida. Immediately finishing my multi/commercial/instrument
12 training, I was fortunate enough to get into a 135 cargo job out
13 of Miami, it was around '96. I did that for 1 year and was
14 furloughed and found a job overseas. I lived and worked in
15 Azerbaijan, Baku, working for the oil company that was building a
16 pipeline going across the Republic of Georgia.

17 Did that for about 2 years, then returned about '99 back to
18 the same cargo company and by that time I had my ATP time, I did
19 my ATP type in the Metroliner and continued with them until April
20 of '01, I was hired by AirTran Airways, where I flew the 717 and
21 737, and then in '14, I came over to Southwest.

22 Q. Great experience there. When you were based in Baku, what
23 kind of airplane were you flying?

24 A. A Metroliner.

25 Q. And when you were down there flying cargo in Miami, what kind

1 of airplane?

2 A. Also a Metroliner.

3 Q. Fill me in on a Metroliner, there's a wingtip extension out
4 there on some of them, did you fly the short wing or the long
5 wing?

6 A. We had one short wing, the 2, but the remainder of the fleet
7 were all 3's that had the extended wings, or the ailerons are
8 still in the same place, but there was more wing out there. And
9 the 3 required the type rating, the 2 did not.

10 Q. At Southwest Airlines have you ever been a line check airman?

11 A. No, sir.

12 Q. Do you do volunteer work for SWAPA?

13 A. I do not.

14 Q. These are approximate answers (sic) that I'm going to ask
15 you. Before Southwest Airlines, approximately how much flight
16 time did you have?

17 A. Probably roughly, 13.5 to 14,000.

18 Q. And approximately how much flight time have you gotten with
19 Southwest since 2014?

20 A. Just about 6,000.

21 Q. When you got hired at Southwest, they hired you as a first
22 officer, is that correct?

23 A. It was part of the integration agreement. I don't know if
24 any did go left seat, to left seat, but I think most everybody, at
25 least in my class that I was familiar with, everybody was in the

1 right seat.

2 Q. How long did you stay in the right seat before you
3 transitioned back to the left seat?

4 A. Rough guess, probably it's 7, 8 months or so.

5 Q. Okay. Do you fly with many new hire first officers?

6 A. It's becoming a little bit more common now.

7 Q. And where are you based, Dave?

8 A. Houston Hobby.

9 Q. Have you ever been based anywhere else?

10 A. The only two bases that I've gone with Southwest are
11 Baltimore and Houston.

12 Q. I'm sorry, Houston and what was your first base, sir?

13 A. Baltimore.

14 Q. Baltimore. Okay, thank you. Who is in your chain of
15 command, in other words, do you -- I'll say it this way, do you
16 know the chief pilot in Houston?

17 A. I do, J.K. (ph.).

18 Q. If you had a safety concern, do you think you could take it
19 to your chief pilot there in Houston and he would act upon it?

20 A. Absolutely.

21 Q. Does Southwest have any other safety programs that you could
22 express your safety concerns through?

23 A. Yes, there are. There is the FOQA, there's an SMS committee,
24 there's the ASAP program and several, probably, I think more that
25 I don't have on the top of my head right now, but there's a decent

1 level of avenues to express safety concerns.

2 Q. Since you mentioned ASAP, did you file an ASAP report after
3 this takeoff event?

4 A. Yes, sir.

5 Q. That's as far as I'm going on that as far as ASAP. Have you
6 ever called in fatigued on a trip?

7 A. Yes, sir.

8 Q. Approximately how many times have you done that?

9 A. I would say maybe, in the entire time I've been at Southwest,
10 I think I've had two fatigue calls, probably two fatigue calls,
11 one sort of -- roughly three, I guess it would be.

12 Q. Okay. On the day of the event, the day of the takeoff from
13 Austin to Cancun, Flight 708, when did you first become aware of
14 the weather, the weather being reduced visibility?

15 A. Best of my recollection, I think it was -- it was probably
16 about when we were getting to the airport with the hotel van, when
17 it was approaching the airport. The weather at the -- it was just
18 cold, I didn't -- there was no reduced visibility in the downtown
19 area that we were, it was once we started to get to the airport.

20 Q. The reason they put the airports there, isn't it, where you
21 got the fog and they put the airports there, so a little humor.
22 Didn't go over well. When you got to the airport, when was the
23 first time you checked the Austin weather there at the airport?

24 A. It would be when I got the -- got to the airport, when we got
25 the ATIS, it was exactly what it was, it was obviously low

1 visibility. It was pretty dynamic, I mean, when we got there. I
2 could see across the ramp, I could see other aircraft at gates, I
3 -- when we got to the actual gate, I could see the tower, the fire
4 department, it was -- it wasn't remarkably low.

5 Q. ATIS doesn't always give us the three RVR ratings, do you
6 recall what the ATIS was giving on 18 left at the time?

7 A. I do not remember exactly what the numbers were. It was
8 coming up and down, but I don't remember what they were.

9 Q. Do you recall what the temperature was outside?

10 A. I think it was 4, maybe 4 or -4, it was cold. No, it wasn't
11 -4, I think 4, roughly. Below 10.

12 Q. Celsius or Fahrenheit?

13 A. Celsius.

14 Q. Did you have to deice before you pushed back?

15 A. The process that they use in Austin airport is they push the
16 aircraft off the gate, not completely, and we did have to get
17 deiced and when we took a look at the weather, we also established
18 that we were also going to anti-ice two-step process.

19 Q. Do you recall what the two steps were?

20 A. It was deice and anti-ice. Type 1 and Type 4.

21 Q. That's kind of where I was going.

22 A. Understood.

23 Q. My apologies for not stating that clearly. So David, take us
24 through now, you got reduced visibility, you got the -- I started
25 to say the RVR, but you may not have had the RVR. In your

1 briefing, was the weather discussed?

2 A. Yes.

3 Q. What did you tell your copilot about the weather or in your
4 -- before you started the briefing, what did you tell your copilot
5 about the weather?

6 A. During preflight briefing and during boarding we were both
7 looking at the weather in a dynamic, it would go to low visibility
8 and then come up, so we paid attention to that. We knew that we
9 needed RVRs in order to depart and that currently where it was and
10 with Michael's level of experience, I was comfortable with it
11 being his leg, that he was -- I felt comfortable with him
12 executing the takeoff out of there and that we did our procedures
13 talked about, what we do with the deicing and anti-icing, and
14 concern with it being frozen fog and where it might attach to, you
15 really can't see it, you know, it's just -- it produces a sheen or
16 something like that, so not really sure what is slick or what has
17 ice, what doesn't, and then went from there.

18 Q. Did you see a sheen on the ramp or anything?

19 A. There was a wetness, yeah, on everything, the aircraft, the
20 surface, yes.

21 Q. You just said you were comfortable with the copilot's level
22 of his experience. Had you flown with him previously, before this
23 trip?

24 A. Yeah, we've had -- just by coincidence, we've had a common
25 line for 2 months.

1 Q. I'm going to let you run with this, Dave. Just talk us
2 through, just let it flow and -- from the time you pushed back,
3 the engine starts, to the time you -- well, to about 10,000 feet.
4 Talk us through all that, if you don't mind. Give us just a
5 cognitive review of it.

6 A. We were paying attention to the weather, obviously, and the
7 concerns with that, and then we'd be doing the anti-ice, deice,
8 and we completed that, did all the checklists, got the aircraft,
9 was configured and ready to go and we called ground, Michael did,
10 for a taxi clearance, and I believe it was a female voice, a lady
11 asked us what point of exit was most convenient to us and off the
12 front right we could see G-2 clearly, we expressed that to her.
13 She gave us a taxi clearance, I've got a chart to make sure I
14 don't say anything stupid here.

15 We got a taxi clearance from Golf 2 to Golf Bravo for 18 left
16 and she said to report when we were established on Golf, the
17 taxiway immediately outside of the ramp. We complied with that
18 and she told us to monitor tower at that time and then we did a
19 taxi check on the way to 18 left and conscious of the low vis and
20 having Michael help us verify that we knew exactly where we were
21 supposed to be on the taxiways. Approaching the departure end of
22 18 left, there had been no communication, the only aircraft that
23 we had heard moving all morning was a Delta jet that was returning
24 to the ramp to get deiced and that was the only aircraft that we
25 had heard all morning. We could identify comfortably that we knew

1 exactly that 18 left was there, the departure was there, and not
2 hearing anybody, without prompting, Michael knew and I was
3 comfortable, and we prompted the tower for takeoff clearance,
4 never having had to stop the aircraft at all, all the way to that.
5 We received the takeoff clearance and along with that, the
6 heading, the RVRs, and the note of traffic, it was on 3-mile
7 final, and we took the runway, got the aircraft lined up, knowing
8 that Michael was going to be doing the 70 percent run-up.

9 We didn't have contamination that would -- we imagined would
10 be sticking to any blades, that we'd have to throw it off or
11 anything like that. I transferred control to him once the
12 aircraft was definitely aligned with the centerline. He
13 immediately went to the run-up, we got 70, I asked that we had
14 good power, everything was where it was supposed to be, and the
15 brakes were released without comment and we started our takeoff
16 roll.

17 It was a normal takeoff roll, there was -- the tower asked us
18 if we were rolling and I replied that we were rolling, and then it
19 was somewhere after 80 knots on, before V-1 (ph.), we heard FedEx
20 announce they were going around or missing, I don't remember
21 exactly, I have not studied anything or gone back to look at what
22 anybody thinks of anything, so I'm working with that. Michael
23 says that he heard them say something to the fact that -- to
24 reject, I did not hear that. I did hear the go-around, that they
25 were announcing their go-around, and I heard something more like

1 hot mike and configuration, but it definitely was not the tower's
2 voice that was discernible, definitely, to me, it was FedEx, they
3 were going around. We got to our rotation, it was a normal
4 rotation, a gear retraction, and then I can -- I would only
5 speculate, I have no idea, but pretty soon right after gear
6 retraction, the initial climb, is when a TCAS target appeared
7 above and to our right, showing 600 feet.

8 I announced that to Michael, he immediately blew through,
9 pitched through the flight director to shallow the climb grading,
10 to shallow the climb rate, and I was continuing to announce we
11 still have 600 feet, he's above to the right. Somewhere along
12 there I heard what appeared, what I believe to be the tower's
13 voice was for Southwest to turn right or turn right when able and
14 I made a mention to Michael that, I said something, I think he
15 thinks we're still on the ground because he just said to turn
16 right.

17 Michael initiated a slow, a slow turn to the right, I believe
18 it was about somewhere in between 20, maybe 30 degrees right,
19 while the target still remained above to the right and I know it's
20 nothing that we can really navigate, but it's the only thing that
21 we had. I expressed my concern, don't go any further right than
22 that because we don't know what's over there and we know that this
23 target is above and to our right. And we were concentrating on
24 maintaining a reasonable airspeed for the configuration and
25 maintaining separation from the TCAS target that we had above us

1 and somewhere shortly after that, the target was gone, it
2 disappeared, and I don't -- I would imagine it climbed above or to
3 the left of us, and then we were told by the tower to return to
4 the runway heading, adding -- got back to a normal climb gradient,
5 we didn't have the target anymore, cleaned up and somewhere in
6 that time, we were handed off to departure. Contacted departure
7 and got normal vectors and headings and altitude changes to join
8 the departure and once we got on the way and moving through
9 10,000, Michael and I tried to unpack what had happened and it
10 just became something after we had departed and that we talked
11 about it and tried to figure out what it was.

12 And my purpose was to get it put into a place so that we
13 could focus on the remainder of that leg and to get to Denver, and
14 talked with Michael that, you know, when we get to Denver we'll
15 call the chief and explain what happened and see what they would
16 like as far as reporting or what they felt was necessary. But by
17 the time we already got to Denver, the company was aware and it
18 had -- it had initiated contact with us when we got there.

19 Q. Thank you, Dave, that's very compelling. I've got a few
20 follow-ups in there. Did you hear the FedEx airplane? I mean,
21 you're taking off, it's kind of a little bit louder in the
22 cockpit, did you hear FedEx overhead by any chance?

23 A. No, there was -- I never had a visual or any oral indication
24 that there was an aircraft anywhere near us.

25 Q. Do you recall what the RVR was for takeoff?

1 A. I don't recall exactly, but it was -- I know it was, it was
2 higher at the departure and the roll-out, the mid was lower, the
3 mid was the lowest.

4 Q. Austin has a low visibility taxi route, SMGCS. Were SMGCS in
5 effect at the time?

6 A. With the 600, there was an announcement in our clearance, it
7 was referenced, but it wasn't what we used because our clearance
8 was the full length and that's what our performance was predicated
9 on, but the lights were on, they were active, the high intensity
10 centerline lights for taxiways and the runway.

11 Q. On your iPads, do they have an airport moving map display on
12 them?

13 A. There is, yeah, GPS will -- you can select and you would have
14 your own ship showing on the iPad.

15 Q. Were you using that to taxi with?

16 A. I use it to verify that I'm roughly in the same position. As
17 far as the accuracy, I don't use it navigating, especially in low
18 taxi, it's the signage in the taxiway to actually verify it, I
19 don't know the lag of GPS or what the display is, it wouldn't be
20 specifically used, to make sure that I'm in the area that I think
21 I'm at is what I use it for.

22 Q. Have you flown into Austin very much?

23 A. Reasonable amount, yes.

24 Q. Prior to this trip, can you recall the last time you flew in
25 there?

1 A. I cannot specifically recall, but it was recent, it was
2 probably within a month, month and a half, maybe. I'm not exactly
3 sure.

4 MR. ABRAMS: David, I'm going to stop right there for the
5 moment, I've got some more questions for you in the second round,
6 but I'm going to turn the virtual microphone over to Dr. Dujuan
7 Sevillian and I know he has some questions for you. Thank you.

8 MR. ELLIOTT: Thank you.

9 DR. SEVILLIAN: Thanks, Warren.

10 BY DR. SEVILLIAN:

11 Q. Hey, Dave, this is Dujuan. You mentioned in your pilot
12 statement that says the tower issued a standard takeoff clearance
13 and advised that FedEx was on a 3-mile final and then after
14 receiving the takeoff clearance, you visually scanned the approach
15 path. Is this something that you normally do when there is low
16 visibility on the runway?

17 A. It's in all conditions. If it's a flow and it's pretty
18 normal, I'll check the -- the flight plan will be available on the
19 first officer's side, so I can see the runway is there, then I'll
20 verify it with what I see out in front of me so that I know our
21 performance is correct, that we have the right runway, I see it,
22 it's in front of me, and then if the traffic would be approaching
23 from my side, it's always to say final is clear, you know, if you
24 can discern that, or if we were departing the other way, it would
25 be the first officer, they would have the visibility to do that.

1 But in this situation, I looked to the left and there was nothing
2 there and it was low visibility, obviously.

3 Q. And can you recall if the first officer said he scanned the
4 approach path, as well?

5 A. I would imagine Michael would, I don't remember anything
6 being verbalized about that, but --

7 Q. Okay. And then after the takeoff clearance, this is part of
8 your pilot's statement, you visually scanned the approach path for
9 runway 18 left but could not see traffic due to a low ceiling. In
10 a low ceiling situation, you kind of answered this in the other
11 question, but it doesn't necessarily have to be a low ceiling, you
12 do this automatically?

13 A. It's every time, if it's a VFR day, anything like that you'll
14 see. Look, yes.

15 Q. In this case was there any concerns that you had, you know,
16 because you couldn't see the traffic coming in to land?

17 A. No, it's reasonably normal, especially under those conditions
18 I would expect not to see but I would look to see if there's
19 lights or anything, yes.

20 Q. And also in your statement, you stated that you verbalized
21 the TCAS target 600 feet above to the right and that you adjusted
22 the pitch to maintain the approximate 600 feet separation from
23 that target. Had you ever been trained on such a maneuver in the
24 past?

25 A. We are trained with TCAS events and stuff like that. Maybe

1 the only thing that's uncommon to it is that at that altitude it
2 won't tell you a corrective action because of your proximity to
3 the ground, so the only thing that we had to do was use that and
4 that was the only information that we could use at the time, but
5 the airplane wouldn't tell us to descend in that situation because
6 of our altitude.

7 Q. And is this the resolution advisory?

8 A. That would be an RA, if you would get it, but you don't get
9 it that often.

10 Q. Okay. And then, to your recollection, you noted in your
11 statement that you believe that Austin tower instructed you to
12 turn right when able, with no defined heading, is that correct?

13 A. There was no defined heading, it was a turn right or turn
14 right when able, it sounded like an instruction, and I just
15 inferred from what I normally would hear, it sounded like, you
16 know, a ground taxi instruction, to exit the runway to the right.
17 There was no mention of runway, it was just turn right.

18 Q. Okay. And then as part of our investigation, we normally
19 conduct a 72-hour history, just to document your activities before
20 the -- prior to the incident, and so could you just tell me your
21 activities starting on February 1st, which was a Wednesday, all
22 the way to the morning of the incident, which was February 4th.
23 You can start by telling us what time you woke up on February 1st.

24 A. Find a calendar. The 1st was a Wednesday, it was a day off,
25 it was -- I was at home. Nothing, nothing remarkable that day, I

1 think I may have played golf or something like that. I usually
2 try to do that, take it easy that afternoon. My next day was a
3 commute to Houston on Thursday, on the 2nd. Nothing remarkable
4 about that day. The flight was delayed, but it wasn't -- it
5 wasn't an issue. Got rest at the airport there and then the next
6 day was -- to make sure, it was the trip to Austin, a reasonably
7 long day, but it was uneventful. And, you know, Michael and I
8 have been flying together since -- it tends to be a little -- flow
9 a little bit easier, so there was nothing with that, at all.

10 Ended up in Austin that afternoon, it was our first layover.
11 Nothing remarkable about that. Michael and I met for dinner and
12 had a reasonably long layover. The day of the event was early
13 morning, departure is -- the only thing, maybe, the hotel van was
14 a little bit late, if there was anything remarkable, but there was
15 nothing, nothing remarkable about any of those days. Well rested,
16 no issue.

17 Q. And can you remember what time you woke up on Wednesday,
18 February 1st?

19 A. Wednesday. If we had a 5 o'clock van, I'm estimating it was
20 probably about 5 o'clock, probably 4:00 Central, 5 o'clock, my
21 body function time.

22 DR. SEVILLIAN: Wednesday or Friday?

23 MR. ELLIOTT: We're looking at the 4th.

24 DR. SEVILLIAN: Oh, Wednesday. The 1st.

25 DR SEVILLIAN: Wednesday.

1 MR. ELLIOTT: Oh, Wednesday, the initial -- that was a 4:40
2 show, I probably would've woken up 3:30, 3:40 Central, 4:40 my
3 time.

4 BY DR. SEVILLIAN:

5 Q. So you said February 1st, you were working on February 1st?

6 A. No, it was a day off.

7 Q. Okay.

8 A. I was off on the 1st, I commuted to Houston on the 2nd, the
9 first day of the trip being the 3rd.

10 Q. And so on the 1st, do you recall what time you woke up that
11 morning?

12 A. I don't. I don't remember, it -- it wasn't terribly late, it
13 was probably 6, 7 o'clock, my body clock is pretty much adjusted
14 to -- we have, you know, a.m./p.m. trips, I'm pretty much on an
15 a.m. circadian schedule.

16 Q. Um-hum. And about what time did you go to sleep that night?

17 A. Probably sometime between 9:00 and 10:00.

18 Q. Okay. And then February 2nd, which was the Thursday, what
19 time did you wake up on that day?

20 A. Commute, I probably got up roughly around the same time,
21 maybe 6, 7 o'clock. Go for a walk, take care of things before my
22 wife could drop me off, so I've got to be out the door roughly
23 10:30, 11 o'clock to get the 12 o'clock flight out of Miami.

24 Q. Um-hum. And what time did you go to bed that day?

25 A. Eight, 9 o'clock. You know, in bed early, probably.

1 Q. And then on --

2 A. I didn't have anything going, I just came to the hotel and
3 got dinner and relaxed.

4 Q. Um-hum. And then on February 3rd, about what time did you
5 wake up?

6 A. February 3rd, I was going to Austin, we had a show at 4:40,
7 so -- okay, so I'm in Houston for the first day, I have to be
8 there at 4:40, I probably got up about -- I usually -- I would
9 estimate 3:30, 3:40 local; 4:30, 4:40 my body func time.

10 Q. Okay. And then what time would it have been?

11 A. That day?

12 Q. Um-hum.

13 A. We went to Austin, we had dinner. Relatively early, just
14 probably I'm going to guesstimate around roughly 8 o'clock local,
15 maybe 9 o'clock my body clock time.

16 Q. Okay. And then when you woke up for that morning, it was the
17 early show time that you had there?

18 A. It was a 5:40 show and I don't remember exactly what the van
19 time was, I think it was -- I think it was somewhere around a 5
20 o'clock van, so that would -- in the normal situation I would be
21 up about an hour before the time the van would depart the hotel.

22 Q. Um-hum. Okay, appreciate that. And then just one question
23 related to that, about how many hours do you need of sleep to feel
24 rested?

25 A. To feel well rested, I think six and a half, seven is

1 definitely adequate.

2 Q. Okay. And then Warren talked earlier about the fatigue
3 reports, you said you submitted some in the past with Southwest.
4 Just sort of a high level, what was the resolution on those
5 reports that you submitted?

6 A. They all occurred in -- when the airline was having irregular
7 operations and the schedule was getting moved and changed, and it
8 was getting to a point where it was outside of where I would be
9 rested or feel comfortable continuing or something like that.
10 It's just whatever the planned trip was, continued to get pushed
11 further and further and further back, that -- like I said -- and
12 I'm not sure if you're familiar, but Southwest pretty much has
13 a.m. kind of flying and p.m. flying and just different people
14 prefer different things, I prefer the a.m..

15 So when I start to get moved in because of schedule issues or
16 something, when it gets moved in later, I know that I'm getting to
17 a point where it's -- I'm not comfortable continuing and I've had
18 absolutely no issues, completely supported by the company, there's
19 no issue with it.

20 DR. SEVILLIAN: Well, thanks, David, I appreciate it.

21 Back to you, Warren.

22 MR. ELLIOTT: Thank you, sir.

23 MR. ABRAMS: Thank you, Dujuan.

24 Matt, you ready?

25 MR. RIGSBY: Yes, sir.

1 MR. ABRAMS: Thank you.

2 BY MR. RIGSBY:

3 Q. Okay, Dave. You talked about, with Warren, on as you're
4 taxiing down and I wasn't clear, you said -- where did you stop
5 the aircraft on taxiway Bravo?

6 A. The aircraft, actually, we never -- we never brought it to a
7 stop, I never had to stop the aircraft. Do you have the chart
8 available?

9 Q. No, I don't.

10 A. Oh, okay. So we exited at Golf 2.

11 Q. Okay.

12 A. We joined Golf, probably the longer part of the taxiing onto
13 Bravo, and continued to turn to the hold short on Bravo. Bravo
14 continues all the way to the departure end of the runway.

15 Q. Okay. So you were -- were you parallel to the runway or
16 perpendicular?

17 A. At what point?

18 Q. When you stopped short of the runway.

19 A. We never stopped.

20 Q. Oh.

21 A. There was no -- we were coming around the turn on Bravo, that
22 would be perpendicular to the runway.

23 Q. Okay.

24 A. Not hearing any traffic, Michael rightly assumed it was --
25 it's exactly what we would normally do, just let them know that we

1 were ready for departure.

2 Q. Okay. And at that point, is that when the tower advised you
3 traffic 3-mile final?

4 A. It was in the takeoff clearance was the first indication that
5 we knew of any traffic, so I don't -- like I told you all,
6 gentlemen, I've not gone back to see anybody's review or
7 indication or anything of what it was, you know, I didn't want to
8 color anything of what I thought about it by anybody else's
9 opinion or something, but we received the takeoff clearance and it
10 was heading RVRs, the departure, the takeoff clearance and the
11 heavy was on a 3-mile final. And I don't remember exactly in the
12 form of, you know, what part was where.

13 Q. Okay. Did it give you any concern when you heard the traffic
14 was on 3-mile final in low visibility conditions?

15 A. It was maybe an aggressive clearance, but it wasn't
16 concerning. I think, you know, the aircraft was not -- not
17 stopping, it was going to be a continuous motion, and it was not,
18 you know, not a concern.

19 Q. Okay. Did the controller sound like he was in a hurry to get
20 you guys off or anything?

21 A. No.

22 Q. Okay. Once you got issued your takeoff clearance, did the
23 tower make any additional calls to you?

24 A. There was the call to ask if we were rolling.

25 Q. And his voice sounded normal in that?

1 A. I don't exactly remember the tone, but it was -- it didn't
2 raise an alarm with me.

3 Q. Okay. At what point did you see FedEx on the TCAS?

4 A. Only after gear retraction and departure during climb.

5 Q. Okay. And did you have the HUD display?

6 A. No, I was not using the HUD, it was Michael's takeoff and I
7 didn't have it down. It had been preflight, it was operative, but
8 I did not use it because I was not doing the takeoff.

9 Q. Okay.

10 A. It would've been -- it would've been a completely different
11 briefing and setup for that, for me.

12 Q. Okay. So can you go over again, once you heard Southwest --
13 or FedEx say they were doing a go-around, at that point, what --
14 what did you do?

15 A. Maintained what we were doing. I mean, it was low vis, it's
16 not something that would be irregular or uncommon, I don't know
17 what type of approach, I didn't know what they were doing, it
18 wasn't -- it wasn't in my scope of what they were doing, so I
19 don't know if they were -- if they were missing, you know, if they
20 were going around at a thousand or if they were down at minimums
21 going around, I don't know. It didn't seem peculiar or odd
22 because of the conditions, I didn't know where they were.

23 Q. Okay. Did you ever see them once you broke out of the clouds
24 or out of the fog?

25 A. We broke out and I can't remember, but it was relatively low,

1 maybe 2 to 3,000, we were on top and then it was just -- it was a
2 beautiful day and I did look, I was looking out my window behind
3 my wing trying to find and see where that target was. I saw an
4 aircraft that appeared to be downwind at Austin and it was very
5 low, but I couldn't absolutely discern a hundred percent that it
6 was FedEx, the aircraft I saw.

7 Q. Okay. Was that the only traffic that you were aware of in
8 the Austin area at that time?

9 A. The only aircraft. We had a couple companies that were
10 pushing after us, that was the only radio chatter and it was --
11 the one aircraft was a Delta that -- I don't know if they had
12 departed the ramp, I don't know exactly where they were, but they
13 were getting a taxi clearance to come back to the ramp to get
14 deiced.

15 Q. Okay.

16 A. That was the only aircraft that we heard at all, that I can
17 remember.

18 Q. Okay. And then once you guys got cleaned up and above
19 10,000, once in cruise, you guys discussed the event?

20 A. Yes, sir.

21 Q. Okay. Did you talk to departure control or air traffic again
22 about the event?

23 A. No, I didn't know what their familiarity would be with it and
24 I didn't think that that would be advantageous to us.

25 Q. Okay. Okay. Oh, how long of a commute did you have from --

1 you said you were in Miami?

2 A. Yeah, I live in Miami.

3 Q. You live in Miami.

4 A. I have a direct flight, it's relatively easy, I'm about -- my
5 wife drops me off, so -- I mean, it's maybe a 15-minute drive to
6 the airport and it's roughly -- usually Miami to Houston is about
7 two, two and a half hours.

8 MR. RIGSBY: Okay. Okay, that's it for me. Thank you.

9 MR. ELLIOTT: Thank you, sir.

10 MR. ABRAMS: Thank you, Matt. Dave Elliott, are you doing
11 okay?

12 MR. ELLIOTT: Yes, sir.

13 MR. ABRAMS: All right. Let us know if you need something.
14 Kevin, we'll start with you again.

15 BY MR. FERGERSON:

16 Q. Okay. David, thank you for your time this morning. Have
17 you gone through recurrent training this year, 2023, AQP training?

18 A. No, I have not.

19 Q. You have not, okay. With low visibility, were you using the
20 low visibility version of the Jeppesen charts that morning or
21 using the optional airport moving map, the AMM version?

22 A. The AMM with the --

23 Q. AMM?

24 A. Yeah.

25 Q. Did you feel comfortable with the depiction of the low

1 visibility aspect of it as far as your taxiway rides, to pull that
2 up?

3 A. I did.

4 Q. Okay. And you said you -- you all used the full length, you
5 all went on Bravo --

6 A. Yeah, I think it was Bravo to 18.

7 Q. Okay. Did you observe the traffic that tower reported, did
8 you observe it on your navigation display as a TCAS target at all?

9 A. Did not, no.

10 Q. Okay. Did you feel, you know, reflecting back on the event,
11 did you feel like your training prepared you for how you -- how
12 both yourself and Mike handled the event?

13 A. I do. I mean, it seemed Michael and I were operating at a
14 high level that day and it was -- everything was going great for a
15 little while.

16 Q. Okay. Did you ever have an RA, a resolution advisory from
17 the TCAS system?

18 A. Speaking specifically of this day or --

19 Q. Yeah. Well, yeah, during the event, did you have an RA
20 associated with FedEx that morning?

21 A. We only had the symbology (ph.), we never got any oral --

22 Q. Okay.

23 A. -- implements, which I wouldn't -- I don't -- I wouldn't
24 expect to hear.

25 MR. FERGERSON: Okay. Okay, that's all I have. Thank you,

1 sir.

2 MR. ELLIOTT: Thank you.

3 MR. ABRAMS: Thank you, Kevin.

4 Craig.

5 BY MR. JAKUBOWSKI:

6 Q. Hey, David, a couple questions. You mentioned the freezing
7 fog and you mentioned a sheen on the ground. When you were
8 taxiing out, do you recall how the aircraft handled as far as
9 braking and steering?

10 A. Well, it was acceptable. I didn't have any -- I would
11 normally notice a slip with the nose gear on painted surface and I
12 wasn't having an issue with it. Was cautious, you know, it was
13 not a day for VFR dry taxi speed, but it wasn't -- it was all
14 normal, I didn't feel any control issue with the aircraft.

15 Q. Okay. On departure, when you got the TA, you mentioned 600
16 feet. Did you or Michael -- any other configuration changes to
17 the aircraft when you lowered the pitch other than the landing
18 gear being retracted?

19 A. I noticed it after gear retraction, we had that clean, and
20 then after that, no configuration changes were made, it was the
21 only focal point that we had. We had the gear up, we know we
22 needed a positive rate but we know that we had something above us
23 that we couldn't climb normally, so Michael did a fantastic job
24 flying through the flight director, we were talking about it, I
25 knew what he was doing, I was giving him as much information as I

1 could and he was having to fly through the flight director. It
2 was -- and that's that.

3 Q. No, that's great. Did you leave the flight directors on or
4 did you happen to turn them off during that?

5 A. Everything was left on, I didn't manipulate the panel at all
6 at that altitude and he was making the action that we both saw fit
7 for the condition, so I thought it would be inappropriate and
8 unsafe for me to get up and start turning adding or setting vert
9 speeds or anything like that.

10 Q. Do you recall kind of any wake or wake turbulence from the TA
11 600 feet above you?

12 A. Absolutely not. No, we never felt, heard, or saw.

13 Q. Okay. When the call was made to turn right, did that lead to
14 any confusion between you and Michael?

15 A. I was under the impression, it sounded like it was -- that he
16 thought we were on the ground and it was some sort of ground
17 clearance and Michael alone, with a very gradual pitch selection,
18 he also made a very gradual right turn, nothing aggressive, and he
19 began to comply with that and I -- seeing -- I know that the TCAS
20 symbology is not like a radar target, it's not -- you know, it's
21 nothing that we can fly formation on somebody with, but I knew he
22 was above and to the right and I didn't want him to go much
23 further right than that because I didn't know where that target
24 was going to diverge to, whether it was going to continue right or
25 whether it was going to break to the left. So once he got about

1 20, 20 to 30 degrees right I asked him, I said let's not go any
2 further right than that and just stay here and we maintain the
3 separation until the target disappeared.

4 Q. Okay. And then my only last question was you mentioned that
5 they asked you if you were rolling, do you happen to recall
6 roughly what airspeed that you were queried about that?

7 A. No, I -- roughly, 3 to 5 seconds after brake release and
8 Michael had power on the motor, so it wasn't in idle, it was a
9 power release to the brakes, it's probably 3 to 5 seconds after we
10 were rolling.

11 Q. Okay.

12 A. Estimation.

13 MR. JAKUBOWSKI: That's all I have.

14 Thanks, Warren.

15 MR. ELLIOTT: Thank you.

16 MR. ABRAMS: Thank you, Craig.

17 BY MR. ABRAMS:

18 Q. Just a few questions for round two for you, Dave. Do you
19 recall if there were any MELs on the airplane that day?

20 A. Usually, that's -- it's a significant part of my briefing,
21 but I don't recall that we had anything, everything should've -- I
22 believe everything was operational and there was no MEL on it.

23 Q. Okay, good.

24 A. I can't remember. If there was, it would probably have just
25 been a cosmetic issue or something.

1 Q. Kevin provided a little segue to this next group of questions
2 about recurrent training. How often do you go to recurrent or CQ
3 training?

4 A. Physically go in school houses every year, but we have
5 sections that we do online throughout the quarters of the year.

6 Q. How often do you get in a simulator?

7 A. Once a year.

8 Q. Once a year. Do you do a low vis takeoff during that
9 recurrent?

10 A. It depends on the syllabus, but I do believe we do low vis,
11 we do HGS takeoffs and landings, yes. Heads-up guidance, display
12 HGS?

13 Q. Yes, yes.

14 A. Okay.

15 Q. Does your ops specs allow you to take off at the lowest RVR
16 setting that the airport can accomplish, can accommodate?

17 A. Our ops specs will let us go below what's accommodated, I do
18 believe, because of the HGS and the -- if we have the tailored
19 chart for it, that is appropriate for it and then we have the
20 lighting and the system.

21 MR. ABRAMS: Okay. That's all I got for you at the moment,
22 Dave.

23 Dujan?

24 DR. SEVILLIAN: Yeah, thanks, Warren.

25 BY DR. SEVILLIAN:

1 Q. David, I just want to go back here and talk about the TCAS
2 when you were in the process that you were taking off from
3 18 left, you received on the display some information about the
4 traffic, which was FedEx, but you did not receive any oral
5 annunciation or anything in terms of a resolution advisory --

6 A. Correct.

7 Q. -- is that correct? Okay. And given this event, is this
8 event something that Southwest would brief other crew members
9 about in terms of sort of information sharing, does that ever --
10 would that happen in terms of this event?

11 MR. HARRINGTON: I would just caution that you can't speak
12 for Southwest, I don't think. I mean, he can answer, but he's not
13 in the safety department, so I caution of, you know, speaking on
14 behalf of Southwest.

15 MR. ELLIOTT: I appreciate the question, but with the advice
16 of counsel, it would only be my opinion and probably not -- not
17 anything that would have gravity with this right here and now.

18 DR. SEVILLIAN: Okay, I appreciate the -- your thoughts there
19 and that's all I have.

20 MR. ELLIOTT: Thank you, sir.

21 DR. SEVILLIAN: Warren, back to you.

22 MR. ELLIOTT: Thank you.

23 MR. ABRAMS: All right, Matt.

24 BY MR. RIGSBY:

25 Q. Did you hear the call from either the tower or FedEx about an

1 abort?

2 A. I did not.

3 Q. Okay.

4 A. I heard FedEx announce that they were going around, I did not
5 hear that they said for anybody else to abort. I did not hear
6 that.

7 MR. RIGSBY: Okay. I think that's it, thank you.

8 MR. ABRAMS: Thank you, Matt.

9 Kevin.

10 MR. FERGERSON: I have no more questions.

11 MR. ABRAMS: Thank you, Kevin.

12 How about you, Craig?

13 MR. JAKUBOWSKI: I have no further questions, thanks, Warren.

14 MR. ABRAMS: Thank you.

15 BY MR. ABRAMS:

16 Q. David, we've all talked back to you so quick, you hardly have
17 a chance to catch your breath. Is there anything else you would
18 like to tell us about this, David, you don't -- I mean, it's an
19 open-ended question, is there anything that you want to tell us
20 that we didn't ask you?

21 A. No, sir. Appreciate everything you guys are doing, but I
22 have nothing to add to it other than what we have here.

23 MR. ABRAMS: Thank you. Well, David, I do appreciate your
24 time today, I know this is never a convenient time for anyone to
25 talk to the NTSB, but we do appreciate it more than you know. The

1 party members, I can speak for them, they appreciate it, as well,
2 and we'll give you a sincere thank you for your time today.

3 MR. ELLIOTT: Gentlemen, I appreciate what you're doing and
4 thank you.

5 MR. ABRAMS: Thank you.

6 Scott, if you'll stop the recording, note the time, and we'll
7 wrap this thing up.

8 (Whereupon, at 11:55 a.m., the interview concluded.)
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CERTIFICATE

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

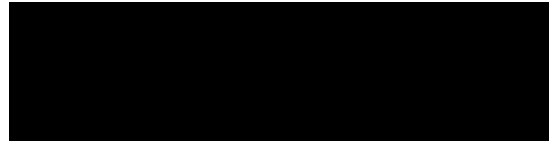
IN THE MATTER OF: FEDEX CARGO PLANE & SOUTHWEST
AIRLINES BOEING 767 INCIDENT AT
AUSTIN INTERNATIONAL AIRPORT, IN
AUSTIN, TEXAS ON FEBRUARY 4, 2023
Interview of David C. Elliott

ACCIDENT NO.: DCA23LA149

PLACE: via Zoom videoconference

DATE: February 16, 2023

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



Karen D. Martini
Transcriber

15UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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FEDEX CARGO PLANE & SOUTHWEST
AIRLINES BOEING 767 INCIDENT AT
AUSTIN INTERNATIONAL AIRPORT, IN
AUSTIN, TEXAS ON FEBRUARY 4, 2023

Accident No.: DCA23LA149

* * * * *

Interview of: MICHAEL E. BROCK, Co-pilot
Southwest Airlines

via Zoom videoconference

Thursday,
February 16, 2023

APPEARANCES:

WARREN ABRAMS, Operations Group Chairman
National Transportation Safety Board

DUJUAN SEVILLIAN, Ph.D., Human Performance Investigator
National Transportation Safety Board

MATT RIGSBY, AVP-100
Federal Aviation Administration

CRAIG JAKUBOWSKI, Southwest Airlines pilot
Southwest Airlines Pilots Association

KEVIN FERGERSON, Southwest Airlines pilot
Southwest Airlines Flight Operations

DAVID HARRINGTON, Esq.
Condon & Forsyth LLP
On behalf of Michael Brock

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I N T E R V I E W

(9:00 a.m.)

1
2
3 MR. ABRAMS: Mike, Mike Brock, I am Warren Abrams, the group
4 chairman for the ops group at the NTSB, and we are gathered here
5 today to ascertain more information about your takeoff the other
6 day from Austin-Bergstrom on the morning of February 4th. You
7 were, I believe, the first officer on Southwest 708 and we talked
8 to the crew on FedEx 1432 yesterday, so we want to hear what you
9 have to say about the events surrounding that day.

10 To help us gather that information, we use a group effort or
11 a team effort, and we are all assembled here and we're going to go
12 around the virtual room to let you know who's going to be asking
13 you questions in addition to me.

14 So Dujuan, if you will start us off, please.

15 DR. SEVILLIAN: Yes, Dujuan Sevillian, I am a human
16 performance investigator for the NTSB.

17 MR. ABRAMS: Thank you, Dujuan.

18 Matt.

19 MR. RIGSBY: Hey, Mike, why we don't we talk a minute in the
20 open? I'm Matt Rigsby, out of the FAA's Office of Accident
21 Investigation and I have no enforcement authority, this is purely
22 the safety investigation, anything you say here cannot be used --
23 I can't turn over to the certificate management team or anything
24 like that, so it's purely for the safety side of the house, so
25 thank you.

1 MR. ABRAMS: Thank you, Matt.

2 Kevin, if you'll introduce yourself and give us your
3 affiliation, please.

4 MR. FERGERSON: Yeah, Kevin Ferguson, pilot, Southwest
5 Airlines. I'm representing Southwest Airlines flight operations.

6 MR. ABRAMS: Thank you.

7 Craig, same with you, please.

8 MR. JAKUBOWSKI: Good morning, my name is Craig Jakubowski,
9 pilot for Southwest Airlines. I'm here on behalf of the Southwest
10 Airlines Pilots Association, SWAPA.

11 MR. ABRAMS: David, hold on for you for just a second.

12 Mike Brock, you're allowed to have one representation, one
13 person represent you today, do you have a representative that you
14 have chosen?

15 MR. BROCK: Yes, sir, David Harrington.

16 MR. ABRAMS: All right. David, if you'll introduce yourself,
17 please.

18 MR. HARRINGTON: Sure. David Harrington, Condon & Forsyth,
19 New York, representing Mike, First Officer Mike Brock.

20 MR. ABRAMS: Thank you, David.

21 And Scott, if you'll introduce yourself, please.

22 COURT REPORTER: Yeah, I'm Scott Chervinski, court reporter.
23 I work for Free State Reporting based out of Annapolis, Maryland.

24 MR. ABRAMS: Thank you.

25 Dave, as we discussed previously, you would like to have a

1 little conversation on the record and let's have that
2 conversation, then.

3 MR. HARRINGTON: Sure. Thanks, Warren. I'd just like to
4 confirm that no one other than the court reporter will be
5 recording First Officer Brock's interview today.

6 MR. ABRAMS: That is a true statement and let me also state
7 that I categorically refuse to have anybody go rogue on us and
8 record it via your phone, via a recording device. This recording
9 is not being recorded over Zoom and David, I concur with you or I
10 agree with you that this Free State recording that Scott is
11 recording will be the only recording of this interview session.
12 Scott will not send me the recording and I will not take
13 possession of it at any point in time.

14 MR. HARRINGTON: Okay, thanks, just so we're clear that the
15 NTSB will not obtain or retain the audio portion of this
16 interview, we're all good to go.

17 MR. ABRAMS: Thank you. That is a true statement.

18 Mike Brock, let's see, we kind of -- we'll give you a little
19 of what we're going to say, how we're going to say it and things
20 like that. I'm going to start off with some just softball
21 questions, talk about your flying background and things like that,
22 how you got up to the point where you got hired at Southwest, and
23 I'll ask you some questions about your history of getting your
24 license and ratings and things like that. Then we'll roll into a
25 narrative of you telling us what the events of the morning for the

1 takeoff, and then we'll go around the virtual table asking
2 questions. When I ask questions, I'll ask a series of questions
3 and, you know, you'll answer and stuff like that. I will ask for
4 our group members to not ask that follow-on question right now or
5 interrupt while I am asking questions or conversely, when you're
6 asking questions, we will not ask a follow-on question at that
7 time. We'll do our round of questions.

8 Then Mike, we do about two rounds of questions, there's
9 always some follow-on questions that come up when we're asking
10 questions, so we'll just go from there. Any time that you don't
11 understand a question, please ask us to, you know, restate the
12 question or you don't understand it, we'll be happy to do so, and
13 if you don't know the answer, "I don't know" is an acceptable
14 answer, as well, so we'll go from there. Kind of understand
15 everything, Mike?

16 MR. BROCK: Yes, sir.

17 MR. ABRAMS: Thank you.

18 INTERVIEW OF MICHAEL E. BROCK

19 BY MR. ABRAMS:

20 Q. All right, here we go, we'll roll, roll right in. Mike, if
21 you would, give us your full legal name and spell your last name,
22 please.

23 A. Michael Edward Brock and Brock is spelled B-r-o-c-k.

24 Q. Thank you. And how old are you, Mike?

25 A. I am 49 years old.

1 Q. And what is your job title?

2 A. My job title is First Officer Southwest Airlines.

3 Q. And how many years or days or months have you been at
4 Southwest?

5 A. I've been at Southwest 7 years and about 7 months.

6 Q. Okay, thank you. If you would, give us a brief history of
7 your flying prior to joining Southwest Airlines, in other words,
8 when did you get your single, commercial, multi-engine, you may
9 have gotten all that through the military, you may have gotten it
10 the civilian route, and tell us who you worked for, as well, prior
11 to Southwest, if you would, please.

12 A. Okay. My background is military, I started my flying at the
13 Air Force Academy, gliders, flight screening there. After
14 graduation, undergraduate pilot training at Vance Air Force Base,
15 advanced pilot training with the Navy at Corpus Christi, Naval Air
16 Station T-44. In general, I was a career C-130 pilot, I did three
17 active assignments in the E and the H and the J model C-130. I
18 did one assignment down at Lockland as a T-1 instructor pilot and
19 I retired from the military in 2015. Technically, I retired in
20 August, but I started with Southwest in July, so I overlapped
21 there. All my ratings with the exception of my ATP, which I did
22 through Higher Power, were all through the military.

23 Q. Thank you. And I want to thank you for your service to our
24 country, as well, appreciate it. Did you go through a -- the rag
25 (ph.) at Little Rock?

1 A. I did.

2 Q. Were you an IP on the 130 there?

3 A. I was.

4 Q. And you say you were an IP on the T-1?

5 A. I was.

6 Q. At the military academy, what did you major in?

7 A. Legal studies or pre-law.

8 Q. How are we doing so far? That's a rhetorical question.

9 A. Yeah, I'm sure Dave is laughing at me right now.

10 Q. He is, he is. Where are you currently based?

11 A. I'm Houston based.

12 Q. Well, the morning that you took off from Austin, you
13 overnighted there, or RON'd over there, where did you start your
14 trip prior -- where did you start the trip that resulted in
15 Southwest 708 from Austin to Cancun?

16 A. So our trip began the day prior out of Houston. As you
17 mentioned, that evening we had overnighted in Austin and then the
18 sortie that we're talking about today was our first -- our first
19 leg of that day.

20 Q. Sure. Were you going to lay over in Cancun or were you
21 leaving Cancun and going to somewhere else?

22 A. No, the leg continued from Cancun to Denver and then we were
23 overnighting in Denver and then we had a third day after that.

24 Q. All right. Did you complete that sequence or pairing as
25 scheduled?

1 A. We completed the -- no is the short answer, the details on
2 that, as we -- we did go to Cancun, we did fly in to Denver, and
3 in Denver, they terminated our trip and they deadheaded us back
4 the following day to Houston.

5 Q. Okay. What was your report time in Austin, do you recall
6 your report time in the morning in Austin?

7 A. I would say roughly the report time was around 5:30 that
8 morning.

9 Q. All right. Save those thoughts about sleep at the hotel and
10 everything else. Dr. Sevillian will be asking you a lot of
11 questions about that when his time comes in a few minutes. Were
12 you aware, when you went to bed the previous night, that the
13 weather might be limited visibility the next morning?

14 A. I did look at the weather the night before. I don't recall
15 there being anything about fog or limited visibility in that, in
16 the forecast for the next morning.

17 Q. When did you first become aware that there was limited
18 visibility the morning of the flight?

19 A. I would say as we were driving in on our way to the airport.

20 Q. When did you first check the weather?

21 A. So I had, as we talked about, I looked at the weather the
22 night before. I had looked at the weather that morning before we
23 showed to the bus and then obviously, when we got to the airplane,
24 we were still checking the weather, the ATIS.

25 Q. Do you pull up a digital copy or ATIS -- do you pull up a

1 digital copy via ACARS of the weather, as well?

2 A. So yes, typically I'll use both, so I'll bring up a digital
3 with ACARS and then we're able to get it on our EFB, as well. So
4 often, when I have a taxi diagram, I'm also -- have up the ATIS on
5 the EFB.

6 Q. I think I'm asking a rhetorical or redundant question, but
7 obviously your EFB has Wi-Fi capability?

8 A. Yes.

9 Q. Mike, if you would, take us through from briefing or -- hold
10 on, I'm going to ask one more question before I get to that
11 question. If the weather had not been bad, would it have been
12 your leg or still the captain's leg down to Cancun?

13 A. It would've been most likely my leg either way, just based on
14 sequence of events, we were alternating legs which was normal for
15 us, so preventing some circumstance where I wouldn't be able to do
16 the takeoff, it would have been my takeoff.

17 Q. All right. What is the lowest RVR you can take off with?

18 A. Five hundred.

19 Q. So let me clarify, you were the pilot flying that morning?

20 A. I was the pilot flying that morning.

21 Q. Now, back to that, take us through, you do the before takeoff
22 briefing or the first briefing of the morning, I'm not sure what
23 Southwest calls it, whether it's the before start briefing or
24 checklist or things like that, give us that briefing or when you
25 talked about the weather in that -- before you got the checklist

1 started.

2 A. Yeah, I mean, some of our briefing, called the captain's
3 briefing, obviously we discussed I was going to be doing the
4 takeoff, we discussed, at the time, the RVR was sufficient or good
5 for me doing the takeoff. Based on the weather, they were calling
6 freezing fog, we discussed that we were going to use deice, anti-
7 ice type 1 and type 4 on our way out to the runway. As I recall,
8 briefly discussed, he said yeah, we'll do engine anti-ice on,
9 we'll do a quick run-up. Those were the highlights of the brief
10 pertaining to the weather, as I recall.

11 Q. Is there anything in your books or manuals that talk about
12 low visibility takeoff, in other words, does it say do not do a
13 rolling takeoff in low visibility, does it say anything about
14 lineup in -- do your books or manuals discuss that in any way,
15 shape, or form?

16 A. Where it's discussed in the book, in the manuals, it's where
17 it addresses an H-G-S or a HUD takeoff in a low visibility
18 section, so there are some procedures in there related to that.
19 As far as anything specific for an FO takeoff with low visibility,
20 it's not -- there's not necessarily a section that deals with
21 that. So when it talks about low visibility, it's -- as I recall
22 the book, it referenced to using the HGS for takeoff.

23 Q. You have a HUD on the right side?

24 A. I do not.

25 Q. Captain have a HUD?

1 A. Captain does have a HUD.

2 Q. All right, let's -- Mike. Engines, you pushed back, engines
3 were started, did you -- did you deice at the gate or is there a
4 deicing pad or where did you deice?

5 A. We push off the gate, just short push and we deiced just off
6 the gate.

7 Q. All right. You deiced, you figured your holdover time,
8 you're taxiing to the runway, take us through, I mean, just take
9 us through what's going through your mind as the captain's taxiing
10 the airplane out, just, yeah, factually tell us what's going on.

11 A. Okay. So I'll start with I made the radio call to ground
12 control to ask for a taxi clearance. Ground control issued our
13 taxi clearance via Golf 2, Golf, and then Bravo to go over to 18
14 left. Due to visibility, they told us to report that when we had
15 entered Golf taxiway. So we taxied, the visibility was low. When
16 we entered Golf taxiway, we reported that we were on Golf.

17 Once we reported on Golf, they instructed us to switch over
18 and monitor tower frequency, and that's what we did. We taxied
19 from Golf onto Bravo. I would estimate that we were on tower
20 frequency for about 3 minutes. We completed our checklist while
21 we were on Bravo parallel. As we made the turn and rolled out, I
22 initiated contact with tower and I told them that we were short of
23 runway 18 left and that we were ready for takeoff. Tower came
24 back with our takeoff clearance, they gave us a heading, they --
25 they gave us the heading, they read off the RVRs for the runway,

1 so they read off all three RVRs and then they cleared us for
2 takeoff and at the end of that radio transmission, they told us
3 that we had traffic on 3-mile final. That was the first time that
4 I was aware that there was traffic. So we proceeded without delay
5 on the runway 18 left. As I recall, we never touched the brakes
6 or the captain didn't touch the brakes until we were on the
7 runway, we lined up on centerline, he depressed the brakes and
8 transferred the aircraft control to me on centerline with the
9 brakes depressed, at which point I ran the power up to 70 percent
10 N1, which is required by our book for less than 3 degrees and
11 engine anti-ice on.

12 So I ran them up momentarily, the captain called stabilized
13 and then I released the brakes and we started rolling with normal
14 takeoff procedures. Approximately 3 to 4 seconds into our takeoff
15 roll, Austin tower calls over the radio and asked to confirm that
16 we were on the takeoff roll and the captain, who was on the radios
17 at that time, confirmed that we were, in fact, rolling.

18 After that, as I recall, we're somewhere between 80 knots and
19 V1, I hear what -- I hear what I thought to be FedEx say over the
20 radio, "FedEx is going around. Southwest, abort your takeoff."
21 At this point, I tried to convey to the captain that he heard the
22 same thing that I did and I don't know the exact words, but I said
23 something to -- did FedEx just tell us to reject? In that, the
24 captain didn't say anything, I glanced left to see if he was going
25 to initiate the rejection of the takeoff, which would be normal

1 for our procedures. He did not. As I recall, we were close to V1
2 at this time. None of the parameters that our book tells us to
3 reject for above 80 knots, so I continued with the takeoff and I
4 felt like that's what he intended me to do. I rotated at rotate,
5 once again, a positive rate, I called for the gear up and then we
6 were both aggressively looking for traffic on TCAS because we
7 expected that FedEx was very close.

8 The first thing that I recall noticing was that we had a
9 yellow traffic advisory with a plus-600 feet. So I'm shallowing
10 my climb as we see that and trying to maintain that separation
11 that we have from the FedEx aircraft. Austin tower, at some
12 point, called turn right and we complied with that, there was no
13 heading given that I recall, I just made a shallow right turn and
14 as I recall, we headed about 25 to 30 degree off runway heading
15 and then turned.

16 At some point the captain told me not too far right, it looks
17 like his TCAS is going that direction, that the FedEx might be
18 also a little bit right, so he just said hey, don't go too far,
19 and I copied that. We continued a shallow climb-out to about a
20 thousand feet, at which point we could kind of see that his TCAS
21 was moving away from us, and at some point in there, it
22 disappeared. The tower gave us a 170 heading through a thousand
23 feet, we continued our normal cleanup procedures and then shortly
24 after that, we were handed off to departure control. I didn't see
25 FedEx on that anymore; as I recall, tower turned them out to the

1 left. So I don't know if he was climbing where I didn't think it
2 was a conflict anymore, but TCAS didn't acknowledge the conflict
3 or it was because he turned off to the left, but at that point it
4 felt like there was no conflict. And then we were handed to
5 departure control and after that, things were normal with
6 procedure down to Cancun. The rest of the sortie was uneventful.

7 Q. Okay. A few follow-ups on that, Mike. I'm going to go back
8 to taxiway Bravo and Golf. Did the flight attendants respond that
9 they were ready for takeoff in a timely manner or did you guys
10 have to wait on the flight attendants to call ready?

11 A. No, as I recall, the captain accomplished his preflight flow
12 while we were on the parallel, coming down to the -- where Bravo
13 makes a 90-degree right, so that flow was complete, and as we
14 turned onto and we were on that turn perpendicular, we were
15 complete and we were ready, we didn't have to wait for anything.

16 Q. Okay. When you were taking off at about the time FedEx said
17 they were on the go, did you hear them in the cockpit, could you
18 tell that they were close by, did you hear them at all?

19 A. No, did not hear a thing.

20 MR. ABRAMS: All right. Mike, I'm going to stop right there
21 and I do have some follow-up questions for round two, but I'm
22 going to turn the virtual mic over to Dujuan Sevillian and Dujuan,
23 if you will take it from here, please.

24 DR. SEVILLIAN: Yeah, thanks, Warren.

25 BY DR. SEVILLIAN:

1 Q. Yeah, Mike, can you hear me okay?

2 A. Yes, sir, I can hear you fine.

3 Q. Yeah, so you stated that approximately about 1240 Zulu,
4 Austin tower issued a standard takeoff clearance, this is in your
5 statement, and you notified -- you were notified that FedEx 767
6 was on 3-mile final and you stated that your scan was outside and
7 to the right when you lined up for the runway centerline. So at
8 that point, did you see FedEx coming in to land on runway 18 left?

9 A. No.

10 Q. Did you have any concerns that you could not see them?

11 A. No, my expectation is that we wouldn't be able to see them
12 because of the fog.

13 Q. Okay. And you also stated that you heard the FedEx 767 on
14 Austin tower state that they were executing a go-around,
15 Southwest, abort your takeoff.

16 A. That's correct.

17 Q. Is this something that you have experienced in the past, in
18 other words, having another pilot on an aircraft tell you to abort
19 your takeoff rather than having air traffic control tell you?

20 A. I've never heard that before, I've never heard of that
21 before.

22 Q. Okay. And then also in your statement you noted that once
23 you were airborne, you noted that TCAS showed traffic 600 feet
24 above you and you change your climb angle slightly, and then
25 Austin tower said turn right. Have you ever had any previous

1 training on how to execute such a maneuver given you could only
2 see the target on the TCAS?

3 A. This specific incident, no, I don't -- nothing that mirrors
4 this, that I can recall. I will say obviously we had training on
5 TCAS and resolution advisories, but this specific instance, no.

6 Q. Okay. And Warren may have asked you this before, but have
7 you ever flown with this captain in the past?

8 A. So yes, and this is by coincidence, Dave and I have been --
9 in the last two months, we have received the same line by
10 coincidence. So in January, my first two trips in January, Dave
11 and I were together and then I went to training, I flew with a
12 different captain, these were the last two weeks in January, and
13 then this was the first trip in February.

14 So we had flown two trips together the past month and then I
15 would say, in my first 2 years that I was at Houston, I flew at
16 least a trip with Dave before he had gone to Baltimore, so we have
17 some history together. And I would like to caveat the last
18 statement, you asked me about any training with this. So when we
19 do formation takeoffs in a T-1 in the military, we would use TCAS
20 for separation and so we would climb out in the weather and we
21 would use that as an aid when we would do maybe, you know, we
22 would do it in trail departure formation in the weather, so it's
23 not specific to this, but it's -- I would call it translatable to
24 what happened.

25 Q. And so you're also saying here that you would take a lot of

1 your expertise from your previous experience and apply it to this
2 event, which helped in the situation.

3 A. Yes, as -- I was trying to maintain separation with the TCAS
4 and tried to not out-climb him as we were departing, so I was
5 keying on that for my separation, I'm going to climb and try not
6 to decrease that rate any.

7 Q. Um-hum. Okay. And I want to just switch gears here from the
8 Air Force side of things. Are you familiar with Surface Movement
9 Guidance Control System or SMGCS?

10 A. In name I am and, you know, SMGCS, to me, as a pilot, relates
11 to low visibility taxi charts, so -- but however, from what the
12 tower can see in their perspective, I don't really have any idea.

13 Q. Okay. All right, that's fine. And as part of our
14 investigation, we normally conduct what we call a 72-hour history
15 so that we can just document the activities that you had prior to
16 the incident and so, for that matter, can you tell me your
17 activities starting from February 1st, which I believe was a
18 Wednesday, let me verify that, Wednesday, all the way to the
19 morning of the event, which was February 4th, and just start by
20 what you -- what time you woke up on February 1st and take us
21 through it.

22 A. I'm just looking at my calendar here so I can -- so
23 February 1st, let's see. All right, so first one of my trips was
24 removed from my board, but as I recall, this was a Friday-
25 Saturday-Sunday trip. Wednesday, hump day, I don't recall

1 anything specific, but I can tell you generally, I wake up at
2 about 5 o'clock in the morning, but on Wednesday I don't recall
3 anything specific, or activities. I can give you my normal
4 routine. I get up early in the morning. I've got three kids, so
5 usually -- my wife is an accountant, she works, so I help the kids
6 to make breakfast in the morning, we get them off to school.

7 I usually work out once they're off at school and then I'll
8 run my errands for the day and then I usually pick them up at 3:30
9 in the afternoon, so I don't remember anything specific about
10 Wednesday. Thursday would've been my commute day, so on Thursday,
11 I'm probably waking up again at somewhere between 4 and 5 o'clock
12 in the morning, going through my routine. We get the kids off to
13 school, I'll work out and then I get my gear together and then I
14 -- I drive over to Houston, which is about a four and a half
15 drive, hour drive, so I usually leave around 10:00 or 10:30.

16 I commute over, I go to the hotel, I usually get there around
17 3 o'clock and then I'll try to get in bed early. I don't remember
18 how early our show was on that Friday morning, it's usually pretty
19 early, but I usually try to get -- 7 hours is about my right
20 number of sleep, so about 7 hours prior I try to be in bed and
21 ready for takeoff or ready for work the next morning. So that
22 Friday, normal show in Houston, I'm sure it's early, I don't
23 remember the exact hours, like I said, and then we flew -- I
24 recall that was three legs, the final one was Dallas to Austin in
25 there, so it wasn't a long day, and then we kind of had a -- it

1 was a nice overnight in Austin, I can't remember exactly how many
2 hours it was, but we landed, I worked out, Dave and I met for
3 dinner, and then I was in bed pretty early. I actually felt
4 pretty well rested that morning, I had a good night's sleep. And
5 then, I'll tell you in general, I'm not a big drinker, in all
6 those days I didn't have any alcohol on our trips, Dave and I, we
7 usually have dinner and we drink iced tea.

8 Q. Okay, thank you. And then, I'm just trying to remember, can
9 you recall what time you went to bed on Wednesday, what time you
10 went to sleep?

11 A. It's usually about -- I get the kids into bed, probably 9
12 o'clock, 9:30.

13 Q. And then Thursday?

14 A. Thursday, I want to say that it was early, probably about 8
15 o'clock.

16 Q. Okay. And then Friday?

17 A. Somewhere in that same range, probably about 8 o'clock.

18 Q. Okay. And then you had the show for Saturday in the morning?

19 A. Yes, show in the morning. I usually get up an hour and a
20 half before bus time is my routine, so I was probably, you know,
21 8:00 to about 3:30 in the morning.

22 DR. SEVILLIAN: Okay. All right, thank you, sir. Those are
23 the questions that I have for right now.

24 Back to you, Warren.

25 MR. ABRAMS: Thank you, Dajuan.

1 You doing okay, Mike?

2 MR. BROCK: I'm doing all right, thanks, yeah.

3 MR. ABRAMS: All right.

4 MR. BROCK: Appreciate it.

5 MR. ABRAMS: All right, Matt, we're going to go with Matt and
6 you got the mic, Matt.

7 MR. RIGSBY: Thank you. Thank you, Warren.

8 BY MR. RIGSBY:

9 Q. A lot of my questions have already been answered. I may have
10 missed it, Mike, but what was your total time and then total time,
11 and these can be estimates, they don't have to be exact, on the
12 737.

13 A. It was very close to 4,000 hours military time and it's very
14 close to 4,000 hours of civilian, all 737, all Southwest time.

15 Q. Okay. So 8,000 hours total time?

16 A. It's very close.

17 Q. Approximately, okay.

18 A. Yes.

19 Q. Do you recall that morning, I think you said something about
20 -- was ATIS reporting the freezing fog or was that your current
21 flight bag, the digital weather?

22 A. I'll say yes, the ATIS -- so when we got to the airplane, as
23 I recall, ATIS did not call freezing fog. I stepped out, I did
24 the walk-around, I had it displayed on my EFB, and when I came
25 back from the walk-around, I looked and I saw that the ATIS, as I

1 recall, updated and was then saying freezing fog.

2 Q. And is it at that point that you and the captain discussed
3 your deicing procedures and --

4 A. So in the sequence of events when -- right at the walk-around
5 there was heavy frost and some ice on the wings, so before I got
6 back in the seat and saw the ATIS, I told him hey, it looks like
7 we need to deice, he said go ahead and run up and tell the ops
8 station, let them know, so I did that and then after I got in the
9 seat is when it said freezing fog. So we were already kind of
10 committed to the deice before that came across.

11 Q. Okay. You said that you all turned to tower frequency on
12 taxiway Bravo. Do you guys monitor tower frequency on taxi out?

13 A. So just to clarify that, we were switched to monitor tower
14 all the way back on Golf.

15 Q. Okay.

16 A. So we had monitored tower frequency pretty much the whole
17 time that we -- once we were off the ramp, we were on -- we were
18 on tower.

19 Q. Okay. For the size of Austin airport and the amount of
20 traffic they have, have you had any concerns with them having --
21 not having the ramp control?

22 A. No.

23 Q. That's an early morning flight, they're not all. Have you
24 been to Austin when traffic's pretty heavy?

25 A. Yeah, we frequent Austin, into Austin often. I would say

1 there's not, you know, a month that goes by that we're not in
2 Austin. I don't think that I've ever commented that Austin really
3 needs ramp control.

4 Q. Okay. Have you ever had any other concerns with air traffic
5 or either ground or tower when flying in and out of Austin?

6 A. No, we really haven't, no problems of note, nothing stands
7 out to me at Austin, problems or issues in general.

8 Q. Okay. When you contacted tower, did they advise you then
9 they had traffic on 3-mile final?

10 A. Yes, it was the last part of that radio call. They finished
11 with traffic on 3-mile final, so there was a heading, as I recall,
12 there was RVRs, there was our clearance for takeoff, and then the
13 traffic was the last piece of that.

14 MR. HARRINGTON: Matt, I'm not sure he understood your
15 question, I'm sorry. I just want to clarify when his first
16 contact without -- I think there might've been confusion, I think
17 the question, Matt, was when you first contacted tower, did they
18 tell you about traffic, is that what your question was?

19 MR. RIGSBY: Correct, correct. And then the traffic

20 MR. HARRINGTON: Right. So Mike, think about that versus
21 when you actually spoke to tower they told you about the traffic.

22 MR. BROCK: Yeah. Maybe, Matt, just -- maybe you can clarify
23 that question, so I --

24 (Crosstalk)

25 BY MR. RIGSBY:

1 Q. Sure, sure. When you guys transferred from ground control to
2 tower and advised, you know, "Tower, Southwest 703, we are on
3 taxiway Bravo," is that when they advised you, in their callback
4 to you, said, you know, "Roger, taxiway Bravo"?

5 A. So no would be my -- the short answer, the expanded on that
6 is that we were given monitor tower, so after we switched over I
7 didn't make contact with them until I told them we were holding
8 short. So we completed the majority of that taxi, the short
9 point, just monitoring tower, and there was -- it was just
10 silence, there was nothing, there was no radio traffic that we
11 heard at all.

12 Q. Okay. Did he advise you the type of traffic on final, type
13 of aircraft?

14 A. So when he issued us our takeoff clearance, he did say that
15 it was a 767 traffic on final.

16 Q. Okay. And just to make sure I heard you right, you did not
17 see his landing light or --

18 A. I did not see, we did not see, I did not see FedEx at all.

19 Q. Okay. Did they show up on your TCAS at that point?

20 A. I did not see them on TCAS.

21 MR. RIGSBY: Okay. I think that's it for me. I appreciate
22 it, Mike, thank you.

23 MR. BROCK: Yes, sir.

24 MR. ABRAMS: Thank you, Matt.

25 Kevin, we'll go with you, sir.

1 BY MR. FERGERSON:

2 Q. Apologize for my fat-thumbng my mute button here and I
3 switched to backup device, so that's why I've got the E18744
4 there. Mike, thanks for your time this morning. Most of my
5 questions have been asked, just a little bit to clarify. This
6 wasn't a typical morning, I guess, from your description as far as
7 what we usually see on first flight of the day. Did you feel a
8 high level of task-floating as far as with deicing, low visibility
9 taxi, things like that going on?

10 A. So adequate conditions, you know, were the conditions. I
11 didn't necessarily feel that that was any more of a burden than
12 dealing with what it is. So procedurally -- I just went through
13 training a couple weeks ago, a lot of these are emphasis items in
14 training right now, so I felt pretty well prepared and up on my
15 procedures.

16 And then to be honest, in my opinion, that the captain and I
17 are familiar with each other and we work pretty well with each
18 other, so I thought that that helped dealing with it, so I didn't
19 feel like it was overwhelming, by any means.

20 Q. And to dovetail on Matt's question on the ramp, was there any
21 difficulty finding the Golf 2 exit from where you pushed back from
22 versus -- I don't think there were centerline lights at Golf 2
23 versus the Golf 1, Golf 3. Did you have any difficulty finding
24 the Golf 2 exit?

25 A. No. As I recall, our gate was 19 or 20, so I mean, as we

1 made the 180 around, we were pretty much pointed at what would be
2 Golf 2, but I will say that the visibility, it was low on the ramp
3 and I think they were calling 600 RVR midfield and that probably
4 reflects, probably closer to that as the ramp to where Golf
5 taxiway is --

6 Q. Um-hum.

7 A. -- was closer probably to that RVR.

8 Q. Were you referencing the low visibility taxi chart for your
9 -- or the low visibility version of the AMM chart to taxi out?

10 A. I did not have that chart up, I had my regular chart up on
11 taxi.

12 Q. And your regular chart, would that be the standard Jeppesen
13 or was it the AMM just for the --

14 A. I was using the dashed line chart at that time.

15 Q. Okay, okay. And just to clarify, when you all were on tower
16 frequency on the taxiway, ground control directed you to tower
17 frequency, is that correct?

18 A. That's correct. They told us to monitor tower.

19 Q. Yeah, okay. Which model aircraft were you in?

20 A. We were in a 700.

21 Q. Seven hundred, okay. Did you ever get -- do you recall
22 having an RA after takeoff?

23 A. No.

24 Q. Okay.

25 A. We did not get an RA.

1 Q. And your takeoff clearance, would you kind of regard that as
2 kind of pretty complex as far as all the information contained in
3 your takeoff clearance, fairly complex?

4 A. There was a lot of information in that call.

5 Q. Okay. Do you feel like you all -- well, at least for
6 yourself, that you absorbed all that, you had -- you had a level
7 of awareness of everything it contained in addition to your
8 specific takeoff clearance and heading to fly?

9 A. I felt that we were pretty clear on the takeoff clearance.
10 Obviously, I'm listening closely to the RVRs to make sure that I'm
11 good for my takeoff, so I was kind of going through, hey, green
12 light, green light. In kind of my mind, I had this all -- this
13 all checks.

14 MR. FERGERSON: Okay, great. That's about all I have, thank
15 you.

16 MR. BROCK: Yes, sir, thank you.

17 MR. ABRAMS: Thank you, Kevin.

18 Craig, you're up, sir.

19 BY MR. JAKUBOWSKI:

20 Q. Yeah, thank you. I think most of my questions have been
21 addressed, I just have two follow-ons. Mike, on the taxi, you
22 mentioned the freezing fog. Do you recall the surface conditions
23 of the taxiway or runway, was there any shine or gloss to it?

24 A. So I'll say that the ramp, when I did my walk-around, had a
25 gloss and I did mention that to the captain when I poked my head

1 in and I said hey, it looks like we're going to need to deice and
2 the ramp looks frosty, I think is the words that I used to him.

3 Q. And then the other question I had was on the part where you
4 mentioned the TA about 600 feet above you, I believe, did you
5 encounter any form of wake turbulence or wake -- any upset on the
6 aircraft while you were departing or shallowing out to climb?

7 A. I didn't feel anything different, no wake, nothing.

8 MR. JAKUBOWSKI: Okay, those are the only two follow-ons I
9 had, every other question has been answered by you already and
10 someone else. Thank you.

11 MR. ABRAMS: Thanks, Craig.

12 Mike, the question I had originally, are you doing okay?

13 MR. BROCK: Yeah, I'm doing okay, thank you.

14 BY MR. ABRAMS:

15 Q. All right, okay. I've got some -- I'll call them dogs and
16 cats, these questions, they kind of jump around a little bit, they
17 kind of go back to the preflight and the -- before everything.
18 Have you ever had any other jobs with Southwest, in other words,
19 have you been in the training department ever at Southwest?

20 A. No, straight-line pilot the whole time.

21 Q. Okay. If you had a safety concern, is there -- are there any
22 programs that you could address your safety concerns to or is
23 there any person you could address those concerns to?

24 A. Yeah, Southwest has an entire safety management program, so
25 there's different ways that we can plug in to that program.

1 Typically, as a pilot, it's ASAP reports that I see, but another
2 way that, you know, I can always go to a chief pilot if I had a
3 concern. So there's different avenues, they're accessible by our
4 EFB, that we can make comments about safety concerns.

5 Q. You said you're based in Houston, do you know the chief pilot
6 in Houston?

7 A. Yes, I have met him, our chief pilot, and over the years I've
8 had conversations with several different assistant chiefs who are
9 in the office.

10 Q. Sure. You mentioned SMS, you mentioned ASAP, does Southwest
11 have a FOQA program?

12 A. Yes, and details -- but I know that we have a FOQA program.

13 Q. Have you ever received a call from the FOQA, I call them
14 gatekeeper?

15 A. As I recall, I never have.

16 Q. This is the only question I'm going to ask on the subject of
17 ASAPs, so David can relax a little bit in his seat; did you file
18 an ASAP report?

19 A. I did.

20 Q. Thank you. That's all I have to say on ASAP. Have you ever
21 called in fatigued on a trip, Mike?

22 A. I never have.

23 Q. When you were taking off, would you consider the winds calm,
24 did you have a headwind or -- go ahead, I'm sorry.

25 A. No, I didn't mean to step on you. As I recall, calm winds.

1 Q. Thank you. Did you ever land at Bergstrom Air Force Base
2 when you were in the -- yeah, you were in the Navy. Were you in
3 the Navy or the Air Force, I can't remember what you were, you
4 went through --

5 A. Yeah, Dave is Navy, I'm Air Force. I didn't go through
6 advanced Navy training, so yeah, I did have a mix of training in
7 there. No, by the time that -- when I was at Laughlin as an
8 instructor, it had already converted over to civilian. So we were
9 going to Austin-Bergstrom when I was military, but it already had
10 been handed over, I don't recall going there while I was active
11 duty.

12 MR. HARRINGTON: I did. I'm older.

13 MR. ABRAMS: All right. That's all I have for round two.
14 Dujuan.

15 DR. SEVILLIAN: Yeah, thanks, Warren.

16 BY DR. SEVILLIAN:

17 Q. I have just a follow-up for the 72-hour history and just --
18 how many hours do you need to feel rested?

19 A. Seven seems to be my magic number.

20 Q. And on the trip to Austin, how did you feel in terms of sleep
21 the previous night?

22 A. I felt like I got good rest that night.

23 Q. Okay. And then switching gears going back to sort of the
24 safety side of things, for an event like this, does Southwest have
25 a method in which they disseminate or talk about this event in

1 terms of information sharing to other pilots or other crew
2 members?

3 A. There are certain events and/or incidents that will -- maybe
4 to the level of a -- training. I don't know if this specific one
5 will, depending on -- but yes, there are different incidents that
6 when we go to our training, they are distributed and go through a
7 re-creation, and events like this, I would say, sometime meet this
8 criteria.

9 Q. And I just want to go back to the conversation that you had
10 with tower when you were in the process of taking off and tower
11 said, you know, you're clear for takeoff and they asked you, the
12 controller asked you if you were rolling and you said affirmative.
13 Is there anything that you would've expected the air traffic
14 controller to provide you after that in terms of any information
15 about the traffic on final?

16 A. I wouldn't expect anything from them. I felt that when they
17 asked us if we were rolling and we responded in the affirmative, I
18 took that as this is a good sign, that we're all good here.

19 Q. In other words, the information that -- you know, him telling
20 you that you have a 767 on the final, and from your perspective,
21 you were cleared for takeoff and that was all you needed in terms
22 of going about your destination, is that true?

23 A. Yes, that's true. I knew that we needed to be expeditious,
24 that's what he told me.

25 DR. SEVILLIAN: Well, thank you, Mike, that's all the

1 questions I had.

2 Back to you, Warren.

3 MR. ABRAMS: Thank you.

4 Matt?

5 MR. RIGSBY: Thank you, Warren.

6 BY MR. RIGSBY:

7 Q. Excuse me, Mike, just a couple of questions. Does Southwest
8 have any policy or procedures for low visibility takeoffs as far
9 when traffic is on final? Like a limitation for oncoming
10 aircraft?

11 A. As far as I'm aware, there is no limitation for oncoming
12 aircraft.

13 Q. Okay. You mentioned that you heard the FedEx pilot call or
14 think you heard him call for you, for Southwest to abort. How did
15 you know that was FedEx?

16 A. There were a couple things. It almost sounded like one
17 continuous radio call and it was possessive in that he said FedEx
18 is going around, it wasn't like a tower-directed FedEx go-around,
19 so it sounded like, to me, he's saying I'm going around, so FedEx
20 going around, Southwest, abort. The voice was clearly different
21 than the tower controller's voice. So when I heard that radio
22 call, I was -- I was very confident that that was FedEx.

23 Q. Okay. When the controller asked you guys are you rolling,
24 was there any -- could you notice any voice inflection or did he
25 sound concerned at that point or --

1 A. He didn't seem concerned to me at that point.

2 Q. Okay.

3 A. It just sounded like he wanted a confirmation.

4 Q. Okay. After the event, did you all discuss the event with
5 the tower or departure control?

6 A. Nothing with tower, nothing with departure control.

7 Internally, we discussed it.

8 Q. Okay.

9 A. More so after we got to cruise.

10 Q. Sure. And once you landed in Cancun, is that when -- did you
11 all advise anybody at that point?

12 A. No. Actually, so we talked about missing the aircraft and
13 reportable criteria and I was like hey, I never saw them closer
14 than the 600 feet we saw on TCAS, we never got a resolution
15 advisory. I was like, I'm not even sure if this one is reportable
16 or not and then we talked about hey, we got to ASAP this, there's
17 some interesting stuff here.

18 So when we got on the ground in Cancun, we kind of left it at
19 that, hey, we're going to do an ASAP report, but our first
20 notification that this was something is when we got an ACARS
21 message on our way to Denver that said hey, call dispatch on the
22 ground, and then when we got on the ground in Denver is kind of
23 when we were told there was more to it. I mean, we knew that
24 there was more to it, but reportable standpoint, we weren't sure
25 exactly how it fit.

1 Q. Okay. Do you recall, did FedEx ever advise you they had you
2 in sight?

3 A. No, they didn't use those words.

4 Q. Okay. I know you said the HUD is on the captain's side, did
5 he have it active for the takeoff?

6 A. He did.

7 MR. RIGSBY: Okay. Okay, sir, that's it for me, thank you.

8 MR. ABRAMS: Thank you, Matt.

9 Kevin.

10 MR. FERGERSON: I have nothing else. Thank you.

11 MR. ABRAMS: Thank you, Kevin.

12 Craig.

13 MR. JAKUBOWSKI: No further questions.

14 BY MR. ABRAMS:

15 Q. Mike, this is kind of a silly question, but it is a serious
16 question, I mean, I'm looking to see if you have an answer for it.
17 Is there anything you can think of that we didn't ask you, in
18 other words, is there something that you prepped for and you say
19 hey, yeah, I hope they ask me this question because I want to get
20 this out. Is there anything that we didn't ask you that you want
21 to tell us about?

22 A. No, there's nothing that comes to mind that we haven't
23 discussed.

24 MR. ABRAMS: You exercised good judgment there, sir, thank
25 you. Mike, I want to thank you for your time today, I appreciate

1 it more than you know. You've helped us a lot in this
2 investigation with your comments, your answers, you've taken us
3 through your takeoff roll. The NTSB's got an active ATC
4 investigation ongoing and all of this we'll tie together in a
5 final report and the final report probably will be a year from
6 now, but it seems to be the typical NTSB pattern these days. But
7 I thank you for your time.

8 Scott, if you want to stop the recording, I'd appreciate it.

9 (Whereupon, at 10:04 a.m., the interview concluded.)

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CERTIFICATE

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

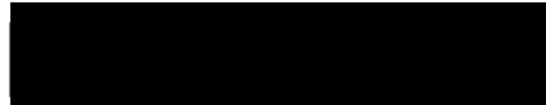
IN THE MATTER OF: FEDEX CARGO PLANE & SOUTHWEST
AIRLINES BOEING 767 INCIDENT AT
AUSTIN INTERNATIONAL AIRPORT, IN
AUSTIN, TEXAS ON FEBRUARY 4, 2023
Interview of Michael E. Brock

ACCIDENT NO.: DCA23LA149

PLACE: via Zoom videoconference

DATE: February 16, 2023

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



Karen D. Martini
Transcriber