UNITED STATES OF AMERICA



NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:

AIRPLANE ACCIDENT OSHKOSH, WISCONSIN

Docket No.: CEN-10-FA-443

Interview of: JACK ROUSH

Telephonic Interview

Monday, August 30, 2010

The above-captioned matter convened, pursuant to notice.

BEFORE: DAVID LAWRENCE

Accident Investigator

APPEARANCES:

DAVID LAWRENCE, Accident Investigator National Transportation Safety Board

Washington, D.C. 20594

PAUL LANGEE, Esq. (Counsel for Mr. Roush and Roush Fenway Racing)

EVAN LYALL, Chairman Roush Fenway Racing

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- 2 MR. LANGE: Go ahead.
- MR. LAWRENCE: Yeah. Who's this?
- 4 MR. LANGE: This is Paul Lange, Jack Roush and Evan
- 5 Lyall.
- 6 MR LAWRENCE: Oh, I'm sorry. This is David Lawrence
- 7 with the NTSB. Gentlemen, thank you for joining us. If -- can
- 8 everybody hear me okay, first off?
- 9 MR. LANGE: Yeah, we can hear you just fine.
- 10 MR. LAWRENCE: Oh, great. Thanks, Paul.
- 11 If we could just do a quick kind of -- are you all in
- 12 the same room right now, Paul?
- MR. LANGE: Yes, we are, and we're on a speaker phone.
- MR. LAWRENCE: Okay, super. If we could just start off
- 15 by just, if you would, go around the room and just introduce
- 16 yourselves and your relation to the event and such, and that would
- 17 help us get started.
- MR. LANGE: Okay. Well, you've got Paul Lange, and I'm
- 19 the attorney for Jack Roush personally and Roush Fenway Racing,
- 20 the owner of the aircraft.
- MR. LAWRENCE: Okay.
- MR. LANGE: And then we've got Evan Lyall here, who's
- 23 the chairman of Roush Fenway Racing, the owner of the aircraft.
- MR. LAWRENCE: Okay.
- MR. LANGE: And Jack Roush, who was the pilot of the

- 1 accident aircraft.
- MR. LAWRENCE: Great. Just as a brief introduction,
- 3 gentlemen, my name is David Lawrence. I'm with the NTSB. I'm
- 4 just in the Operational Factors Division up here, and I've just
- 5 been asked to talk with you guys and Mr. Roush about the event on
- 6 -- in Oshkosh, and I really do appreciate everybody being on the
- 7 call today.
- 8 Mr. Roush, can you hear me okay?
- 9 MR. ROUSH: I can hear you fine. How about me?
- 10 MR. LAWRENCE: Oh, fine. Thank you.
- I really want to thank you for taking the time to speak
- 12 with us, and whatever help you can give the Board in making any
- 13 kind of recommended safety improvements and such, that's what
- 14 we're here for and that's our primary goal. And I do know and I'm
- 15 cognizant of the fact that you're still recovering from your
- 16 injuries, so I promise to be as brief as possible. If at any
- 17 time, Mr. Roush, that you need to take a break or something,
- 18 please let me know. And also, if you don't understand a question
- 19 or something, feel free to ask me and stop me at any point in
- 20 time, and -- you know, just to make sure we clarify what I'm
- 21 asking and anything like that. Do you have any questions before
- 22 we get started?
- MR. ROUSH: No. I think we're good to go.
- MR. LAWRENCE: Great.
- MR. LANGE: I just have one question.

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- 1 MR. LAWRENCE: Sure.
- MR. LANGE: This is Paul. Is there anybody else on the
- 3 call with you?
- 4 MR. LAWRENCE: Nope. It's you three gentlemen and
- 5 myself.
- 6 MR. LANGE: Okay. Good.
- 7 INTERVIEW OF JACK ROUSH
- BY MR. LAWRENCE:
- 9 Q. Good. Just to -- Mr. Roush, just as background, this is
- 10 just preliminary questions and such so we can get a little bit of
- 11 foundation. What licenses do you currently hold and what ratings
- 12 do you have on those?
- A. I'm an ATP-rated, fixed-wing pilot. I've got -- I'll
- 14 get my license out here. I've got -- I'm single pilot-rated,
- 15 CE-525s and RA-390s. That's for the Citation Jet and for the
- 16 Raytheon Premier --
- 17 O. Um-hum.
- 18 A. -- Premier. I've got -- I'm authorized to fly
- 19 experimental airplanes, North American P-51, and, as I said, I'm
- 20 ATP-rated.
- Q. Okay. Just as a guess, just a general estimate, how
- 22 much total time do you think you have?
- A. About -- just short of -- just a few hours short of
- 24 9,000 hours.
- Q. Okay. And how much of that is turbo jet time?

- 1 A. Let me open up my logbook here and I can tell you.
- 2 Q. Just a guess.
- A. Total jet time is 5,300 hours.
- 4 Q. Okay. And what was the first jet that you had flown?
- 5 A. The Citation 525.
- 6 Q. Okay.
- 7 A. And I've got 3800 hours on that airplane.
- Q. Great. That was my next question. Thank you.
- 9 Where did you receive the training on the Citation?
- 10 A. At Wichita Flight Safety.
- 11 Q. How long ago was that, do you recall?
- 12 A. That would have been in '97.
- Q. Okay. Where did you receive the -- well, how much time
- 14 do you have in the Premier jet?
- 15 A. 1400 hours.
- 16 Q. Okay.
- 17 A. 1425 hours, actually.
- 18 Q. Okay. And where did you receive the training for the
- 19 Premier?
- 20 A. Wichita Flight Safety.
- 21 Q. Okay. Same place. Okay.
- A. It's actually a different school on the other side of
- 23 town, but --
- Q. Oh, okay. And do you recall what year that was?
- A. I think we bought that airplane in '97.

- 1 Q. Okay.
- A. Let's see here. I said '97. I meant 2007. I'm sorry.
- 3 Q. Okay. So --
- 4 A. Yeah, it was in -- bought the airplane in December of
- 5 2006. So, we took delivery of it in February 2007.
- 6 Q. Okay. So, you went through the Wichita Flight Safety --
- 7 A. 2006.
- 8 Q. -- training in 2000- -- in 2006?
- 9 A. Yeah, that's -- fall of 2006, and then I did some
- 10 advanced training in May or June of 2007.
- 11 Q. Okay.
- 12 A. To get my single pilot rating.
- Q. Okay. Do you do any recurrent training out at Wichita,
- 14 or do you have any other training that you go through for the
- 15 Premier jet?
- 16 A. I train once a year in the December -- late
- 17 November/early December time frame, and I've trained once a year
- 18 since 2006.
- 19 Q. At the same facility?
- 20 A. Same facility.
- Q. Okay. And what other aircraft do you fly on a regular
- 22 basis?
- 23 A. On a regular basis, I've got two P-51 Mustangs and a
- 24 North American AT-6.
- Q. Okay. And I understand you flew the P-51 that

- 1 particular day?
- 2 A. I actually flew both P-51s that day.
- Q. Okay.
- 4 A. I made the trip back from Oshkosh to Willow Run to
- 5 reposition the Premier right before my flight in the Premier.
- 6 Q. Okay. Well, that actually -- yeah, that's kind of where
- 7 I was going to go with -- if you could kind of take me back just
- 8 that particular day what -- the very beginning of the day and tell
- 9 me what you were doing and what the events were leading up to the
- 10 time that you -- before you made the flight to Oshkosh?
- 11 A. I had a 8:00 photo mission in a P-51 with a photo
- 12 (indiscernible) airplanes.
- 13 Q. Um-hum.
- 14 A. And then I did a courtesy flight for a Ford executive
- 15 after that, and then I did a -- I participated in the opening of
- 16 the air show. I think the air show opened at about 2:30 or 3:00.
- 17 I flew a daisy chain mission; not a formation mission, but a daisy
- 18 chain mission in a -- in the airplane that I flew on to Detroit,
- 19 Willow Run.
- 20 Q. Um-hum.
- 21 A. And at -- when I was -- concluded that mission, instead
- 22 of landing at Oshkosh, I departed the area and flew back across
- 23 the lake to Willow Run, and then got in the Premier, picked up my
- 24 passenger, and proceeded back over to Oshkosh.
- Q. Okay. On the flight coming back from Detroit, just your

- 1 impressions, how did you feel? Were you alert, tired? That's
- 2 kind of where I'm getting at. I'm just trying to see what your
- 3 physical shape was after the day of flying.
- 4 A. I felt normal. I'd had two meals and I had a good
- 5 night's sleep the night before. It was -- you know, it was -- it
- 6 was a really good day for me. It was good weather --
- 7 Q. Um-hum.
- 8 A. -- and I enjoyed flying.
- 9 Q. And your medical had -- I think it listed that you have
- 10 a restriction or limitation for wearing glasses. Were you wearing
- 11 glasses that day?
- 12 A. Yes, sir.
- 13 Q. Okay. I just -- one of those things I got to ask, I
- 14 figured, so -- let me ask you also, when you were bringing the
- 15 Premier back from the Detroit area back into Oshkosh, typically,
- 16 what kind of preflight planning do you normally do on that and
- 17 what -- do you recall what you did that day and what tools you
- 18 used to come into Oshkosh?
- A. Well, I had filed a IFR flight to Milwaukee. Given the
- 20 fact that the air show ended at 6:00 and the airport closed at 7,
- 21 my experience of going to Oshkosh in the past indicated that there
- 22 would be no chance to get a IFR arrival slot --
- 23 Q. Um-hum.
- A. -- with that -- only one hour after that prime time
- 25 after the air show.

- 1 Q. Um-hum.
- A. So, I filed a IFR flight plan to Milwaukee from Willow
- 3 Run with the intention of canceling my IFR flight plan, descending
- 4 to a VFR altitude, canceled my IFR flight plan over Lake Michigan,
- 5 and then going in on the NOTAM to -- or Warbird/Turbine arrival,
- 6 VFR arrival into Oshkosh --
- 7 Q. Okay.
- 8 A. -- which I did.
- 9 Q. Okay. You've flown the -- I think you called it the
- 10 Warbird arrival?
- 11 A. It's actually called the Turbine/Warbird arrival.
- 12 Q. Okay. And you've obviously done that before?
- 13 A. I've done that before, yes.
- 14 Q. Yeah. Is there any other arrivals that you've flown in
- 15 there? I mean, did you have a choice of arrivals?
- 16 A. That is the -- the Turbine/Warbird arrival is the
- 17 arrival for high performance airplanes --
- 18 Q. Um-hum.
- 19 A. -- and that's the only arrival that I've ever used,
- 20 outside the instrument arrival --
- 21 O. Um-hum.
- 22 A. -- which I didn't use in this case.
- Q. Have you flown the Premier into Oshkosh before?
- 24 A. Yes.
- 25 Q. Okay.

- 1 A. The last two years I'm sure I have.
- Q. Okay. And then -- some of these are basic questions, so
- 3 I apologize. I'm not giving (indiscernible); I'm just trying
- 4 cover my bases here. Have you utilized the AirVenture NOTAM book
- 5 before?
- 6 A. Yes.
- 7 Q. Okay. Did you have a copy, or did you have the latest
- 8 version?
- 9 A. I had a copy.
- 10 O. Um-hum.
- 11 A. Yes, sir.
- 12 Q. Okay. Tell me about -- let me ask you about that. In
- 13 your opinion, is -- are the arrival instructions in that NOTAM
- 14 clear? Are they easy to understand? Are there some areas where
- 15 they -- you know, may be some improvement, areas for improvement
- 16 on it?
- A. Well, it was a little overwhelming the first time I had
- 18 read it 10 years ago.
- 19 Q. Um-hum.
- 20 A. The first time I went in there. But it -- I think it's
- 21 straight forward and it stays -- for people that go in there year
- 22 after year, I think that it's -- it makes sense and it's
- 23 consistent.
- Q. Okay. Tell me a little bit about the arrival coming
- 25 into Oshkosh. After you had -- I guess you said you intended to

- 1 cancel IFR, instead of going to Milwaukee, and then do a VFR in --
- 2 with the arrival. Did you do that over Lake Michigan?
- 3 A. Yes, I did.
- 4 Q. And -- so, tell me about the arrival coming in, you
- 5 know, everything you can kind of remember: the weather, the air
- 6 traffic, the, you know, clearances that you received and such.
- 7 A. Shortly after I canceled my IFR arrival, I was released
- 8 from ATC. They told me that they didn't have radar advisory
- 9 services for VFR aircraft within a certain distance of Oshkosh.
- 10 I'm inclined to say that I think that it was 50 miles. But within
- 35 miles of Oshkosh, you turn off your transponder and pick a VFR
- 12 altitude that you're comfortable with, given the fact that there's
- 13 a myriad of airplanes in the same airspace.
- 14 O. Um-hum.
- 15 A. I turned off -- when I was not more than 35 miles from
- 16 the airport, I turned on all my lights, my landing lights and my
- 17 recognition lights, and, of course, I had my strobes, my beacon
- 18 on, and I turned my transponder off --
- 19 Q. Um-hum.
- 20 A. -- which was, which was noted.
- 21 Q. Um-hum.
- A. And I announced my arrival over Warbird Island. Or I
- 23 picked up the ADIS frequency, which was noted, and they indicated
- 24 the active runway, and I -- the appropriate frequency, radio tower
- 25 frequency for the runway in use. I announced my arrival over

- 1 Warbird Island and they told me to proceed to a left downwind
- 2 entry for a base leg abeam of the tower, which was about 2,000
- 3 feet down the 8,000 feet of Runway 18-Right.
- 4 O. Um-hum.
- 5 A. And they had displaced the threshold for departing
- 6 traffic by 2,000 feet.
- 7 Q. Um-hum.
- 8 A. And I understood all that.
- 9 Q. Okay. Did they give you a choice of runways?
- 10 A. They did not.
- 11 Q. Okay.
- 12 A. It surprised me that they did not, but they did not.
- Q. Well, in your experience on the Warbird arrival, which
- 14 runways do you predominantly receive from ATC?
- 15 A. Typically, the -- it's either full length on 18, a full
- 16 length on the 36, 36-Left. I would -- they, they -- the 18-Right
- 17 and the 36-Left are not permanent runways. They're a taxiway,
- 18 parallel taxiway to runway 1836 --
- 19 Q. Yeah.
- 20 A. -- that they NOTAM for arrivals and for departures.
- 21 It's too narrow for a (indiscernible), too narrow for -- the
- 22 taxiway is for a Premier. So, I've never used that runway.
- Q. Right.
- A. But I have used the full length 36, the full length 18,
- 25 and, of course, the full length 27. I've never used runway 9, but

- 1 I have used 27. So, I -- that was the first time that I ever used
- 2 -- was ever assigned a displaced threshold 18-Right.
- 3 Q. Okay. I apologize for my delay. I'm writing as I'm
- 4 speaking and I don't write near as fast.
- 5 So, you really didn't receive a choice from air traffic
- 6 control. Would -- just in your opinion, would you'd had a
- 7 preference between the two runways?
- 8 A. I would have preferred 27.
- 9 Q. Okay.
- 10 A. 27 would have had a, as I recall, a six, a six knot
- 11 crosswind, which would have been very manageable. 18 had a six
- 12 inch -- six knot headwind, as I recall.
- 13 O. Um-hum.
- 14 A. -- and I -- it was certainly less than 10 knots. It was
- 15 manageable.
- Q. Well, I'm kind of glad you mentioned that. It kind of
- 17 leads me into what -- you know, tell me what the weather was kind
- 18 of like. When you're coming over Warbird Island and coming toward
- 19 the airport and such, do you recall what the weather was?
- 20 A. It was clear.
- Q. Yeah. Visibility?
- 22 A. Visibility was more than three miles.
- Q. Okay. Any restrictions or haze or anything like that,
- 24 that made it difficult to pick out from -- the airport from
- 25 Warbird or --

- 1 A. Not at all.
- Q. Okay. It sounded like a nice day to fly.
- A. It was a nice day to fly.
- 4 Q. Yeah. Any turbulence or anything like that on the
- 5 arrival?
- 6 A. Not that I recall.
- 7 Q. Was there anything unusual about the approach or the
- 8 pattern that you flew for 18-Right?
- 9 A. Well, as I said, that was my first time to arrive on
- 10 displaced threshold 18-Right.
- 11 Q. Um-hum.
- 12 A. So, it was my first time to receive that instruction and
- 13 to set up that downwind and the base turn.
- 14 Q. I understand they have these -- because I was reviewing
- 15 some of this, and it's rather new to me, having flown airlines and
- 16 such all my life -- they have these colored dots on the runways.
- 17 Are you familiar with those?
- 18 A. Oh, yeah.
- 19 Q. Okay. And do -- so, tell me about those. What does air
- 20 traffic control do with the pilots in relation to using those
- 21 dots?
- 22 A. Well, they will typically have at least -- maybe four
- 23 dots or three dots on the, say, the 27 and 1836 runway --
- 24 Q. Um-hum.
- 25 A. -- and if they want you to delay your landing because of

- 1 traffic behind you or traffic in front of you, if they want you to
- 2 get down soon, they will tell you to land on the orange dot to
- 3 yellow dot to red dot. I know that there's a green dot, and my
- 4 recollection is a green dot was the dot that was abeam the tower,
- 5 which was my instruction, but I don't recall that they told me to
- 6 land -- or to make my base turn on the green dot. My recollection
- 7 is that they told me to enter my base leg abeam of the tower,
- 8 which I believe was on the green dot, but I don't recall that they
- 9 mentioned the dots at all.
- 10 Q. Oh, okay. But you'd -- when you landed 27 off the
- 11 Warbird in previous times, are there -- there are dots on that
- 12 runway as well, right?
- 13 A. Right.
- Q. Okay. Had they given you instructions in the past to
- 15 land on specific points, touchdown points on the 27?
- 16 A. Yes, they have.
- Q. Okay. So, you're familiar with all this. Good.
- And how would you know landing distances based on these
- 19 colored dots?
- A. I guess I hadn't thought about the dots with regard to
- 21 the landing distance.
- 22 Q. Um-hum.
- A. I know that the tower is, which is what they lined me up
- 24 on for my base turn, is about 25 percent down the 8,000 feet of
- 25 runway, of runway 18-Right.

- 1 Q. Um-hum. Well, in the past, when you landed on 27, did
- 2 the tower ever -- if they gave you one of those colored dots to
- 3 land on, did they ever also advise you of the landing distance
- 4 available? In other words, they give you -- they say clear to
- 5 land on whatever colored dot; landing distance remaining, X amount
- 6 of feet?
- 7 MR. LANGE: Are you talking about with the Premier or --
- 8 MR. LAWRENCE: Any -- well, just anything. You know,
- 9 him flying in on his experience, or has he heard the tower ever do
- 10 that? That's what I'm trying to find out, if the tower has ever
- 11 in the past, in his experience, issued those type of instructions?
- 12 MR. ROUSH: I can't recall.
- BY MR. LAWRENCE:
- 14 Q. Okay.
- A. It certainly has been a practice of ATC when they have a
- 16 displaced threshold on a runway, it's been a practice of ATC to
- 17 tell me that I had a certain amount of runway remaining --
- 18 Q. Um-hum.
- 19 A. -- but I have no recollection of whether that occurred
- 20 at Oshkosh.
- Q. Okay. So, based on what you had seen and the visual
- 22 conditions you had when you were turning base to final, about what
- 23 was your touchdown point were you estimating?
- A. I estimated I would land between 1500 and 2,000 feet
- down the runway. So, that would have made me have 4500 to 4,000

- 1 feet remaining.
- Q. Okay. Was there a specific visual point on the runway
- 3 you were aiming at, or was it just a -- kind of a general area on
- 4 the touchdown zone?
- 5 A. General area on the touchdown, but --
- Q. Yeah.
- 7 A. -- I was on my numbers in terms of altitude and speed
- 8 and I knew that I would land at a distance that would be within
- 9 the capability of the airplane to get stopped.
- 10 Q. Okay. Was there any traffic conflicts on the -- during
- 11 the pattern?
- 12 A. That's a good question. There were two airplanes, as I
- 13 -- as I was on my base, setting up my descent rate and setting up
- 14 my speed, making sure that I had -- getting my last bit of flaps
- 15 out.
- 16 O. Um-hum.
- 17 A. So, I was setting up for my landing. There were
- 18 airplanes that I saw: one just taking off and one that was at the
- 19 departure end of -- or approaching the departure end of 18-Right
- 20 that was airborne. So, I had my eye on -- through my scanner, I
- 21 had my eye on two airplanes that the -- I was actually a little
- 22 bit concerned about the second airplane because I sensed that it
- 23 was a small airplane that probably wasn't going very fast. And so
- 24 I was a little concerned that -- about him, although it was okay.
- 25 Q. Um-hum.

- 1 A. I thought that was the airplane that they had me set up
- 2 behind. And as I was completing my turn, there was an airplane
- 3 that appeared on a takeoff roll that was a conflict with the line
- 4 of descent that I had going on to get me onto the runway. So,
- 5 there was a conflict that I found as I was completing my turn from
- 6 base to final.
- 7 Q. Okay. Where did you pick him -- when did you first pick
- 8 him up? I'm sorry. I might have missed that.
- 9 A. All right. I was in my turn. I was in my base to final
- 10 turn, and whether it was -- you know, it took my breath. Whether
- 11 it was halfway through the turn or near the end of the turn, I --
- 12 Q. Um-hum.
- 13 A. -- I'm not sure.
- 14 Q. Um-hum.
- A. But I was in that turn. I was not yet lined up on final
- 16 when I saw that airplane. I had not been cleared behind an
- 17 airplane; I'd been cleared to land.
- 18 Q. Yeah.
- 19 A. And so, I -- the airplane that I was watching was a
- 20 white airplane that was -- that had some yellow on it, as I
- 21 recall, and the airplane that I ultimately had a conflict with was
- 22 -- as I saw from some home videos that was taken of it, it was a
- 23 Piper Cub, yellow Piper Cub.
- Q. Did you say anything to the tower?
- 25 A. No.

- 1 Q. Okay. And did you ever lose track of that one that was
- 2 airborne, the Piper Cub?
- 3 A. No.
- 4 Q. So, you had him in visual the whole time?
- 5 A. I actually wound up flying at -- just to the right of
- 6 him. We were in formation for a period of time.
- 7 Q. Okay.
- 8 A. But he was definitely in my flight path.
- 9 Q. Where do you -- and I apologize too, Mr. Roush, I don't
- 10 know the Premier and such. But when you sit in the Premier, in
- 11 the seating and the cockpit and such, do you have any kind of like
- 12 particular adjustments you make for coming into someplace like
- 13 this that has a lot of visual traffic and a lot of separation
- 14 issues and such that you have to watch for other aircraft? Do you
- 15 have like a certain seating position that helps you a little bit
- 16 better lookout?
- 17 A. I do not.
- 18 Q. Okay. Were you on autopilot? I don't know if I asked
- 19 that.
- 20 A. No. I was -- for the -- I was hand flying the airplane.
- Q. Okay. Are there auto-throttles on the airplane?
- 22 A. No, sir.
- Q. Okay. Did the tower -- I know you didn't say anything
- 24 to the tower, but did the tower give you any other special
- 25 instructions about the conflict after they cleared you to land?

- A. My recollection is that they cleared me to land and I
- 2 asked the question, is that going to be okay? And they indicated
- 3 that it was. But, as I said, I was feeling that I was tight as I
- 4 wanted to be on the airplane that was in front of --
- 5 Q. Um-hum.
- 6 A. -- this airplane. So, I was looking at, not the
- 7 airplane I had a conflict with, but the -- I hadn't yet seen the
- 8 airplane I had a conflict with.
- 9 Q. Right. So, when you're asking that of the tower, what
- 10 was your -- what did you mean by, is that going to be okay?
- 11 Just --
- 12 A. I wanted assurance that I was -- had ample airspace for
- 13 the maneuver that -- the landing maneuver I had going on.
- Q. Did ATC respond to you?
- 15 A. To the best of my knowledge, they told me to proceed or
- 16 gave me some assurance.
- 17 Q. Okay.
- 18 A. I don't know for sure which.
- 19 Q. Okay. How are you doing, by the way? Do you need water
- 20 or anything like that? Do you need a break?
- 21 A. Water right in front of me. I'm good.
- 22 Q. Oh, good.
- Were there any corrections that you had to make of the
- 24 flight path from base to final?
- A. As I made my turn -- as I was making the turn and became

- 1 aware of the conflict with the airplane, I over -- I flew past the
- 2 centerline of the runway.
- 3 Q. Um-hum.
- 4 A. And the difficulty with that is that there was a show
- 5 line that had people in it to the right of the runway that was
- 6 parallel with the runway, and that was -- you know, I was -- you
- 7 can't fly over that at less than 1,000 feet, so I couldn't fly
- 8 over the show line.
- 9 Q. Right.
- 10 A. And -- so, as I saw the airplane, completed my turn to
- 11 the right of the runway, and then, of course, my effort was -- at
- 12 that point I knew I wasn't going to land on the runway; I was
- 13 going to miss my approach. But before I went to takeoff power, in
- 14 an effort to miss the approach, I added some power --
- 15 O. Um-hum.
- 16 A. -- as I looked above and to the left side and in front,
- 17 of course, to be absolutely sure that I wasn't going to overtake
- 18 another slower airplane.
- 19 O. Yeah.
- 20 A. In the process of getting that assurance and making
- 21 myself assured, I -- the right wing of the airplane stalled.
- Q. Okay. Did you make a decision to execute the go around?
- A. I made the decision to execute the go around once I had
- 24 made myself an assurance that I wasn't going to have a mid-air
- 25 collision with another airplane.

- 1 Q. Right.
- 2 A. There were so many airplanes in the air, I wanted to
- 3 make sure I checked them all.
- 4 Q. Yeah. And I can only imagine, especially up there at
- 5 that time.
- And I apologize for my ignorance of the aircraft, how do
- 7 you do a go around in a Premier? What is the procedure?
- A. Well, it's -- there's a button on the left side of the
- 9 left throttle that you push that takes the flight director and
- 10 gives you -- it indicates a 10-degree nose-up attitude with the
- 11 understanding that you fly into the V-bart (ph.). And, of course,
- 12 you simultaneously go to takeoff power. The -- once you've got a
- 13 positive rate -- or you go to takeoff power, take the flaps back
- 14 to 10 degrees, milk the flaps up to 10 degrees; and once you've
- 15 got positive rate established, you go to gear up.
- 16 Q. Is there like a detent on the thrust lever quadrant or
- 17 anything that you go to so you know tactically where the go -- the
- 18 takeoff power is?
- 19 A. Throttle to the firewall.
- Q. The firewall? Okay.
- 21 A. The stock.
- 22 Q. All right.
- Just in your recollection, do you recall if they made --
- A. The acceleration that the airplane undergoes, once
- 25 you've done that, is incredible, and I was not comfortable with

- 1 that level of acceleration, that degree, until I'd made double
- 2 sure that I was clear of conflicts.
- Q. Okay. So, you decided to do the go around, but you're
- 4 not -- you know, and I don't want to put words in your mouth, so
- 5 just correct me -- you weren't necessarily all the way to firewall
- 6 thrust, or --
- 7 A. No. I advanced the throttle probably a third of the way
- 8 to the stop.
- 9 Q. Okay. At any point in time do you recall if you'd
- 10 brought the thrust lever all the way up to the stops?
- 11 A. I did not.
- 12 Q. Okay.
- 13 A. The thought that I had, and I don't want to interject
- 14 something here that you haven't asked, but the thought that I had
- 15 was that I -- once I stalled that wing, once that wing started to
- 16 stall, I was concerned that that advanced power right then might
- 17 just result in a more dramatic contact with the ground.
- 18 Q. Um-hum. I understand. And I know it all happened
- 19 really fast, too.
- What role would you say the alignment from base to final
- 21 -- I know you had to make a little bit of a left correction, you
- 22 said, to get back to the centerline and such because you had gone
- 23 over and you were worried about the -- I think you called it the
- 24 show line, where the crowd was.
- 25 A. Once I saw the other airplane --

- 1 Q. Um-hum.
- 2 A. -- I knew that I was not going to land on that runway at
- 3 that time. So, my concern over alignment was just to make sure
- 4 that I was clear of the crowd line --
- 5 Q. Right.
- 6 A. -- and not -- the other airplane was on the centerline
- 7 of the runway and there was not room for both of us there.
- Q. Right. And the Piper that was airborne, you were trying
- 9 to -- I'm trying to figure out where the thrust management was to
- 10 try and maintain the separation for that aircraft that was
- 11 airborne.
- 12 A. The thrust management had nothing to do with the -- with
- 13 concern over the airplane. I had dealt with that airplane by
- 14 being to the right side of it.
- 15 Q. Okay.
- 16 A. I was not in alignment with it. The thrust -- the -- my
- 17 reluctance to go on and go to takeoff power was just to be sure
- 18 that I didn't have another conflict that I hadn't seen in front of
- 19 me or above me as I made my missed approach departure.
- 20 Q. I appreciate that clarification. Thanks. That makes
- 21 sense.
- Had you been able to successfully do the go around, what
- 23 was your intention, or -- is there a procedure to execute a visual
- 24 go around out of Oshkosh?
- 25 A. I'm not sure.

- 1 Q. Okay.
- 2 A. I would have found myself some airspace that was secure.
- 3 I would have contacted ATC and told them that due to a conflict
- 4 that I had executed a go around, but I would ask him for
- 5 instructions for another runway or for a clearance to depart the
- 6 area and go to another airport.
- 7 Q. Okay. I don't know if I asked you this, and I
- 8 apologize. Have you ever done a go around in the Premier before?
- 9 A. Yes.
- 10 Q. Okay. In the actual airplane of just in the sim?
- 11 A. The actual airplane.
- 12 Q. Okay, great. How does it perform in -- just in your
- 13 opinion, how does it perform?
- 14 A. It's a hotrod.
- 15 Q. Yeah, is it? Okay.
- 16 A. Jumps, it jumps out from underneath of you.
- 17 Q. It is a pretty looking airplane, I'll tell you.
- 18 You said that you don't think it was responding or, this
- 19 case, it wasn't responding like a go -- a typical go around
- 20 because of the thrust. Did you have any concerns maybe there was
- 21 something with the engines?
- 22 A. No, sir.
- 23 Q. Okay.
- A. They were performing normally.
- 25 Q. Okay.

- A. Did you ever consider landing on the remaining runway
- 2 over the other aircraft?
- 3 A. No, sir.
- 4 Q. Okay.
- 5 A. Once I saw that airplane -- once I saw the airplane
- 6 there, my concern was not flying over the crowd line and, you
- 7 know, making sure I stayed to the right of him, and clearing the
- 8 airspace so that I wouldn't have a mid-air collision with another
- 9 airplane that was in the pattern.
- 10 Q. I understand. Is there an oral stall alert on the
- 11 Premier?
- 12 A. No. Not that I recall.
- Q. Okay. Is there any type of stall mitigation devices or
- 14 anything like that on the Premier?
- 15 A. There's an indication that there's an imminent stall
- 16 with a stick shaker.
- Q. Okay, a stick shaker. Do you recall if you got a stick
- 18 shaker?
- 19 A. I did. I did get a stick shaker.
- Q. Okay. Is there a pusher on this one?
- 21 A. There is a pusher, as well.
- Q. Do you recall if you felt the pusher?
- 23 A. I did -- I feel -- I felt the pusher. And that happened
- 24 at the same time -- that seemed simultaneous with the right wing
- 25 dropping. And, as I said, that was one of the reasons that I

- 1 didn't go on and add power at that point, was because I had the
- 2 stick pusher working on me and I had the right wing coming down.
- 3 I was -- since that has not -- was not a maneuver that was
- 4 practiced, an emergency procedure that was practiced in the
- 5 simulator --
- Q. Um-hum.
- 7 A. -- had not talked to anybody about it, I was -- my
- 8 immediate concern was not getting the airplane on its top, not
- 9 landing the airplane inverted, and having the alignment change so
- 10 that I would wind up in the crowd.
- 11 Q. Right. I can understand. So, you did feel the shaker,
- 12 but there was no -- is there any visual like on the ICAS or
- 13 anything that visually alerts you that -- of an impending stall on
- 14 this airplane?
- 15 A. No.
- 16 Q. Okay. And there's no -- that you recall, there's no
- 17 oral tone. So, really, the first indication that you had of a
- 18 impending stall was the shaker, correct?
- 19 A. The shaker, and it was followed almost immediately by
- 20 the pusher --
- 21 Q. Okay.
- 22 A. -- and by the right wing had dropped.
- Q. Okay. Have you ever felt, and I apologize if I've
- 24 already asked this, have you ever felt the stick shaker or pusher
- 25 before?

- 1 A. No, sir, not in anything but the simulator.
- Q. Okay. But so, you have -- so, somebody's shown you, or
- 3 Wichita Flight Safety did do some training in stall recognition
- 4 there?
- 5 A. Yeah. You do stall training there, where you'll go into
- 6 a -- you go into a -- they've got accelerated stall, which is a
- 7 turning stall, a clean stall and a dirty stall.
- 8 O. Um-hum.
- 9 A. And you go into the stick shaker, and then recover -- or
- 10 apply takeoff power and then mitigate that. But it's not uncommon
- 11 to lose 100 feet through the process of going from stick shaker to
- 12 a recovery.
- 13 Q. So their training was recovery at the first sign of a
- 14 stall, correct?
- 15 A. That's correct.
- 16 Q. Okay. So, they never did any type of training for you
- 17 to see what the actual pusher -- in other words, take the training
- 18 beyond shaker and go to --
- A. Well, but in the training, we inadvertently would have a
- 20 situation where we -- you know, I've experienced the pusher
- 21 before.
- Q. Okay. Okay.
- 23 A. In the training in the simulator. I understood what was
- 24 happening.
- 25 Q. Yeah.

- 1 A. It wasn't a surprise. I mean, it was a surprise --
- 2 Q. Yeah, I can only imagine.
- After the impact, and one of our engineer guys wanted me
- 4 to ask this, the engines apparently continued to run after the
- 5 fuselage came to a stop. He just was curious, was there any
- 6 difficulty in shutting down the engines or securing the aircraft
- 7 that you had?
- A. I would have to say that I was in a little bit of shock.
- 9 Q. Yeah.
- 10 A. I had a fairly serious blow to my -- the left side of my
- 11 face.
- 12 Q. Um-hum.
- 13 A. I was concerned about a fire. I was concerned about my
- 14 passenger, and I -- as the airplane stopped, as it came to rest, I
- 15 slammed the throttles back to idle.
- 16 Q. Um-hum.
- A. I overlooked the step of shutting the fuel off. And so,
- 18 I checked with my passenger. I asked her if she was okay, and she
- 19 gave me an indication that she was. She wasn't bleeding and there
- 20 was no sign of an injury.
- 21 O. Um-hum.
- 22 A. I got out of the seat as quickly as I could, being
- 23 concerned about fire, and attempted to open the door. The door
- 24 would not open for me at that point. I went back and -- the cabin
- 25 was intact, completely intact. There was no relocation of the

- 1 yoke and the pedals were in the right -- same place. The seats
- 2 were still where they were -- you know, everything about the
- 3 (indiscernible) was intact --
- 4 Q. Um-hum.
- 5 A. -- and in its proper location.
- 6 O. Yeah.
- 7 A. The window in the escape hatch on the right side of the
- 8 -- over the wing on the airplane, on the right side of the cabin,
- 9 that window was broken out. It was the only window that was
- 10 broken in the airplane.
- 11 Q. Okay.
- 12 A. And as I went back there, I heard the screaming of the
- 13 engine, and a thought occurred to me, says, what in the world do
- 14 they have sirens going for? Because I thought I was hearing a
- 15 siren. And as I looked out the window, I could see the engine
- 16 turning, and, of course, I said some unpleasant things to the
- 17 pilot because he hadn't shut the fuel off.
- 18 O. Okay.
- 19 A. Went back and shut the fuel off --
- 20 Q. Okay.
- 21 A. -- and I had the thought at that time, I says, you know,
- 22 this thing almost certainly doesn't have landing gear and that
- 23 probably means that the pneumatic system of the engines operating
- 24 is -- it put a pressure on the seal of the door. So, the reason I
- 25 couldn't open the door might have been the fact that the engines

- 1 were running.
- 2 Q. Right.
- 3 A. So I open the door. I reached the door handle and the
- 4 door opened for me normally after I had shut the engines down.
- Okay. Now, let me go back real quick so I understand
- 6 which doors. You said you first -- when you got out, you
- 7 attempted to open the door. Now, you know, help me with this
- 8 because I'm trying to picture it. What door are you talking
- 9 about? Are you -- is there a cockpit door or is it the forward
- 10 left door?
- 11 A. Forward left door.
- 12 Q. Okay. Forward left door.
- A. And that was the door that eventually opened once I shut
- 14 the engines off.
- Q. Ah, interesting. But the right wing exit, right side
- 16 exit was broken out? The cabin window was broken out?
- 17 A. The cabin window was gone. But the door was in place,
- 18 but the window was gone. Now, whether something hit that from the
- 19 -- or whether it was stressed enough that it cracked, I have no
- 20 idea --
- 21 Q. Okay.
- 22 A. -- but it was -- the glass was gone out of it.
- Q. Okay. I'm just -- I'm kind of trying to understand why
- 24 you had -- why that door had such difficulty opening, because if
- 25 the window had broken out, there --

- 1 A. That was not the door I opened.
- 2 Q. Um-hum.
- 3 A. The full window in the main cabin door. That was the
- 4 emergency exit door over the right wing.
- 5 Q. But the --
- A. I didn't open that door. Once I saw the engines
- 7 turning, I went back to shut the engines off --
- 8 Q. Yeah.
- 9 A. -- and then once I -- as I did that, the thought
- 10 occurred to me that the pneumatic system that pressurized seal for
- 11 the door --
- 12 Q. Um-hum. Gotcha.
- 13 A. -- it -- it's defaulted whenever you've got your swat
- 14 switches working and your landing gear down.
- 15 O. Um-hum.
- A. So as much as I was in shock, I was not silly enough not
- 17 to think that I -- I should try that door again. So, as I tried
- 18 the door the second time, it opened normally.
- 19 Q. It did open normally. So, there wasn't any problems
- 20 exiting from there. Is that the only -- the emergency exit for
- 21 the pilots is through that door? There's no cockpit egress or
- 22 anything like that?
- 23 A. There's one main normal door for the cabin and for the
- 24 cockpit --
- 25 Q. Okay.

- A. -- and there's one door over the right wing. Those are
- 2 the only two doors. There's not a separate pilot emergency door
- 3 in the cockpit.
- Q. Okay. Tell me about the -- if you can remember about
- 5 the security of the belt system and the restraint system, was
- 6 there any difficulties there?
- 7 A. They worked normally. And I was marked up on my torso;
- 8 I had some bruising around the belts, so they did a nice job.
- 9 Q. Okay. And I said -- and I don't want to get into too
- 10 much detail, but I understand some of your injuries occurred from
- 11 a visor?
- 12 A. Yeah, well, that's speculation.
- 13 Q. Yeah.
- 14 A. The visor was in fairly close proximity to the right
- 15 side of my face, and there's a mechanism for managing and
- 16 adjusting that, that is metal.
- 17 Q. Yeah.
- 18 A. Either I had contact with the yoke, I had contact with
- 19 the post between the windshield and the side glass, or I had
- 20 contact with the mechanism on the visor.
- 21 Q. Okay.
- A. And I haven't looked at the airplane. I haven't been
- 23 back in the cockpit since the airplane -- since the salvage left
- 24 Oshkosh, but I will have a chance to look at it one day soon.
- Q. Okay. Do you have any suggestions based on your

- 1 experience and what happened and what you do recall, any
- 2 suggestions as far as improving the cockpit design or maybe other
- 3 safety features for the cockpit?
- 4 A. I'd be curious to know what kind of G's that the -- that
- 5 I had, and -- you know, I did have a compression fracture of
- 6 vertebrae, my 01 vertebrae in my back, and I'd be curious to know
- 7 what kind of G's that I had vertically and know what the
- 8 performance of the seat was in absorbing or -- in absorbing the
- 9 G's so that the compression fracture might have been avoided.
- 10 Q. Right.
- A. That's the only question I've got, certainly not a
- 12 criticism.
- Q. Okay. I'm writing that down because that's a really,
- 14 really good question.
- 15 A. I don't know for a fact if the data -- acquisition of
- 16 information that the airplane has records lateral and vertical G-
- 17 loading.
- 18 Q. I don't know. Like I said, it's a really good question
- 19 to find out and from a survival factor standpoint worth exploring.
- Mr. Roush, just, you know, in general, you know, why do
- 21 you think or what is your impression of why this accident
- 22 occurred?
- A. The accident would have not happened if there had not
- 24 been a conflict on the runway, in the runway. That was the
- 25 problem.

- 1 Q. Um-hum.
- 2 A. The airplane had the capability, and I had the
- 3 experience and the currency to be able to put the airplane down
- 4 safely if there hadn't have been that conflict.
- 5 Q. Right.
- A. Past that, the -- you could always make the case that
- 7 had I put caution to the wind and gone directly into a go around
- 8 mode, that the airplane would not have had a problem, the wing
- 9 wouldn't have stalled, and the rest of it would have been just a
- 10 matter of conjecture --
- 11 Q. Um-hum.
- 12 A. -- what might have happened. But the fact that the
- 13 airplane stalled before I got my airspace cleared was the thing
- 14 that precipitated the crash.
- 15 Q. When you speak about the airspace being clear, is this
- 16 based on your experience flying into Oshkosh, that you assumed the
- 17 airspace wouldn't be clear above you?
- 18 A. There was that likelihood.
- 19 Q. Yeah. Those were the only two airplanes that you saw?
- 20 Were there other aircraft in the pattern that you recalled? I
- 21 know these were the two that your primary --
- 22 A. I saw numerous other airplanes --
- 23 Q. Yeah.
- 24 A. -- as I approached the pattern.
- Q. Okay. So, you had that thought process on your mind.

- Any recommendations, safety recommendations that you
- 2 would like to forward? I mean, if you were king for the day and
- 3 you got to, you know, do anything, what would you --
- A. That runway should not have been used for either a high
- 5 performance Warbird or for a turbine airplane in that circumstance
- 6 where they were launching the -- a number of low performing, low
- 7 speed sport airplanes off the same runway.
- 8 Q. Right.
- 9 Do you have any questions for me? Anything you want me
- 10 to do for you?
- 11 A. No, sir.
- 12 Q. I believe Ms. McKay (ph.) has my contact information,
- 13 and if she doesn't, I would love for her to just -- you know,
- 14 somebody get a hold of me so I can give that to her and so you
- 15 would have that.
- That's really -- I can't tell you how much I appreciate
- 17 you letting us just, you know, ask a few questions, see if there's
- 18 anything we can look at and find something a little bit more --
- 19 what we can do to make things a little bit safe. That's
- 20 essentially all I'm doing, is trying to help out and make things
- 21 safe for the other person. And you have my contact information.
- 22 You think of anything, because sometimes, you know, some things
- 23 come to mind after a while, but if -- I want you to feel free to
- 24 give me a call anytime.
- 25 If you don't have any other -- more questions for me --

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1
     or any other gentleman on the phone have any questions?
 2
                                      No. And, you're right. I mean,
               UNIDENTIFIED SPEAKER:
 3
     I've certainly seen -- I've been copied on a lot of e-mails, so I
 4
     know that you got my e-mail address, Allison's e-mail address, and
 5
     her signature block, you know, appears on all her e-mails and that
 6
     contains our office number, so -- so, I think we're -- and I know
 7
     that in our -- we've got your contact information in our database
 8
    so --
 9
               MR. LAWRENCE: Right.
10
               UNIDENTIFIED SPEAKER: -- we're good on that.
11
               MR. LAWRENCE: Okay.
12
               (Whereupon, the interview was concluded.)
13
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CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:

AIRPLANE ACCIDENT

OSHKOSH, WISCONSIN

Interview of Jack Roush

DOCKET NUMBER:

CEN-10-FA-443

PLACE:

DATE:

August 30, 2010

was held according to the record, and that this is the original, complete, true and accurate transcript which has been compared to the recording accomplished at the hearing.

Gloria P. Englash

Transcriber