MEMORANDUM OF RECORD

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Eastern Region Aviation **September 20, 2012**

Subject: Transcript – Pilot Interview for ERA12FA567
Persons present at the interview: Brain Landers (Pilot), Joel Perkins (Co-Pilot), Tim Fitch (Chief Pilot), and Shawn Etcher (Self)

INTERVIEWER: If you could each just state your name and the seat you were in.

BRIAN: My name is Brian Landers and I was left seat captain on the airplane.

JOEL: Joel Perkins, right seat co-pilot.

INTERVIEWER: Perfect.

TIM: Tim Fitch, I'm the one that put them in those seats.

INTERVIEWER: Very well, very well. Now I had heard you guys had to get up early that morning and travel to get the airplane. Could you guys just start from there and just kind of talk me through what happened. You know, all that you can recall. I'm not going to interrupt you I'll just take a few notes here and there.

BRIAN: I got a call the day before to do a flight from Charleston to Macon downtown that was departing Charleston at approximately 9:30 [a.m.] with 1 passenger. We were to meet each other at Peachtree DeKalb airport at 4:00 a.m. and drive to Charleston arriving somewhere around 8:30 a.m. for a 9:30 [a.m.] departure landing in Macon

around 10:00 a.m. I was going to drive the passenger to his meeting which was approximately an hour and a half come back to the airport then our day was over after after a 20 minute flight to Peachtree DeKalb. The evening before I did some preliminary work on weather, notams, and so forth for both airports and woke up at 3:30 [a.m.], I live five ten minutes from Peachtree DeKalb airport. Woke up at 3:30 [a.m.] showered got dressed and went to the airport and met my co-pilot who arrived at 4:00 a.m. I drove the first leg to Augusta approximately two hours. Got out got some gas coffee -- then I was in the passenger seat, Joel drove the rest of the way to Charleston. Halfway to Charleston Joel called the FBO and requested that the wings be topped with PRIST and that would give approximately 3400 pounds of fuel for a thirteen five – excuse me a fourteen five take-off weight. Upon arriving in Charleston - I had actually flight planned the night before on flight plan.com using Tim's login for four two eight juliet delta. Upon arriving to Charleston we both got out of the car checked the fuel hooked up the gpu, did our preflight planning everything was good to go oils were checked pin was in -- Joel went in to print the flight plan. I got the clearance from Charleston and when I told them it was 428JD from Landmark with the current information they read back another airplane that we actually fly as well so I must have filed it and used the default airplane number the tower graciously changed it to four two eight j d so there's no issue there at all. I was sitting in the cockpit and got a text and it was from the passenger, he said he was five [minutes] out and it was approximately nine o'clock 9:05 [a.m.]. We were already ready up in the cockpit and everything was done and passenger arrived -

- Joel and I met him at the as he came into the FBO he loaded up one passenger his dog a set of golf clubs and his shoes. He got on the airplane I told him there was some weather on the departure end that we were going to fly around and there was some weather on the Macon terminal area that was over the airport at the time and the arrival weather should be good for landing maybe bumpy so make sure he was prepared for that. It's his airplane so he is well versed -- he flies 2-3 times a week. So, I get in first left seat. Joel gets in. He likes to fly with the cabin door - cockpit door shut. Joel and I did our prestart. I started the engines, got all the avionics on, called for taxi, and we started taxiing out. There was a delta jet that took off. –there was an area of storms that were moving across the airport as well as to the west. Normal taxi out normal procedures two airplanes departed in front of us and by the time we were ready to go there was no weather on the departure end or anything. We took off to 4,000 feet, the controller told me to climb to 10,000 contact Jacksonville came back on and said why don't you stay with me, we stayed with him. Normal climb out normal everything. Then he said let me know when you can make a right turn direct Macon. I said Joel I think we can make a right turn blue skies to the right so Joel said we'd like to make a right turn direct Macon. Climb to 10,000 contact Jacksonville. Contacted Jacksonville, he said I know you guys filed for 18 that's unusable today due to the altimeter, would you guys like 16 or 20? Joel asked me would you like 16 or 20. I said let's stay at 16 there's really no weather to go through or around until we get into the Macon area we will all be down by then anyway. So I had a 496 XM weather for the broad overview of everything, Joel was

working the en route radar -- nothing depicted at all. Climbed to 16,000 feet normal cruise, no anomalies at all. Joel got the weather for Macon that said that the TAF for night before was expecting 400 over for the arrival at that particular time. The weather was much better than forecast when we arrived in to the Macon terminal area. By the time we got to the area, there was some weather that – three things. One we could see on XM, two we could see visually, and Joel verified with the ATIS at Macon regional. Macon downtown does not have weather on the field, so we had to get weather from a different airport approximately ten miles away, five to ten miles away to the south. The weather there was reporting VFR, the controller said that he would vector us for a visual at Macon downtown if he couldn't get it he would set us up for the localizer runway ten. Approximately after deviating around the weather that we could both see visually on our radar and on the XM, I made a ten degree right turn, went through the area of weather, light to moderate turbulence, but you know there was a convective cell off our left that we could that we could us, approximately ten miles away that we could see on the XM, did see a flash of lightning. I remember Joel asking me if I had ever been struck by lightning and I said I don't plan on it. I said I haven't and don't plan on it either. We broke out approximately ten eleven miles from Macon downtown airport with good visibility and good ceiling. We were at 16,000 feet cleared down to 11,000 feet to Macon approach, we then wanted lower to see if we could get underneath whatever rain and clouds looks like there was a mid layer cloud base and then nothing below it so we thought the best course of action was to stay out of the

clouds and continue to the right and lower. We asked and were given 4000 feet then we asked for lower, to see if we could get the visual. He told us - he informed us of two towers that were between us and the airport. We could get lower in two more miles. Once we got passed that he gave us 2,200 feet. Ten or eleven miles from the airport, current altimeters were set, Joel had already told me that my landing weight was thirteen five, gonna be a 108 ref speed. Joel read the checklist to himself and did my checklist all the way up to what we call the "sync", the "engine sync". We got the airport in sight approximately ten miles out, Joel said you have it, I said yes I do and we cancelled IFR. I setup - Joel told me that the winds were two two zero at four, on the winds, I don't know if it was the PFD you could see that the winds at altitude they were concurring they were out of the southwest. Obviously faster than four knots with that front moving through. I think it was closer to 40 knots at two to three thousand feet and so that front was moving out of there pretty good. Ten miles out we got the visual setup for a right base to runway two eight. Joel was on the number two frequency, number two com frequency bringing up the VASI and runway lights and making his calls. The VASI lights did come on. They came on for three seconds then shut off. They could not come back on again. After all this was said and done the local pilots here said they've been trying to fix that for years and and so when they did come on I was on the VASIs. You'll hear that on the CVR because I distinctly remember saying red over white, white over red. I setup for my - I knew the runway was two eight and winds were two two zero, I actually questioned Joel one two zero at four, he said no two two zero at four so I

was setting for any possible crosswind etcetera -- didn't have any crosswind component that was affecting me on final, no compensation for anything that was affecting the airplane. It was smooth approach. Joel said plus ten probably a mile out, slow for ref. Because there was no VASI I distinctly remember obvious raw data approach there was no glideslope in the cockpit nothing to keep myself aware we were setting up for a six seven hundred foot descent approach right above the tree line. Setup for my normal three degree pitch angle, put it down first 1000 feet. Hit the brakes, nothing -- normal braking meaning my pedals didn't go all the way to the floor, they weren't hard brakes, brought up the thrust reversers and Joel got the speed brakes and just slid. Nothing was slowing me down. Normally on a normal landing when I bring up the thrust reversers I have an immediate push forward where the plane is stopping slowing showing me that its braking and I was just along for the ride. Thrust reversers were coming up full max, brakes were firmer and firmer and started pulsating. Either Joel or I one of us said hydroplaning - mentally I knew that, I was keeping on the brakes firm, not letting up not letting go, full max reverse thrust all the way to the end. I thought at the very end that it was going to stop on the runway, and it just kept pulsating all the way down and doing its doing its what I know to be my knowledge to be anti skid. The anti skid was doing what it was supposed to do, I was just hitting large copious amounts of standing water all the way down the runway that was unexpected and did not see on final. I knew that based on the XM and what we had known prior and what controllers had told us that large areas of rain had moved across the airport,

but we had the airport ten miles out and even if they had been moving forty miles an hour, ten miles out they would have been draining for 15 minutes at least. So, you know based on everything I know it was a wet runway - slid off the end and then when I got through the grass area it really from there was chaos. I remember to my recollection not going off the end of the runway at a very high speed, but I remember going off the initial large hill hitting hard and then accelerating. Taking off, not taking off again but almost like a carnival ride accelerating again - crossed the road into the stand of trees where I came to a complete stop. I remember that Joel and I both were like we have to get these engines off, I put the fuel, the thrust to fuel cutoff and the engines were still running. I reached up and the only other way I knew how to turn the engines off was to hit the fuel hydraulic cutoff valves and then they shut down. I asked Joel if he was ok, he got up, evacuated himself tried to get me out, I was trying to get myself out. He got the passenger out, those two got out together and they yelled back that there was no fire and they were going to try and get help. In the meantime they had both tried to come up in there and get me out. I mean they didn't just leave me in there they tried to get me out. And next thing you know I hear, I was not unconscious I was not pinned in there, via anything other than the control yoke and the seat. And I from there, is when fire rescue came. Joel, I think, excuse me, Bo George was the first person other than the co-pilot and the passenger that I remember seeing getting in the airplane and I believe he got in via the emergency exit. But I believe Joel and our passenger got out via the normal entry door…

Other than -- normal start taxi departure en route -- other than everything was normal and seemed to be working. Parts airplane wise until touchdown and had and felt like it was almost no control accelerating no rapid, no rapid deceleration whatsoever…

INTERVIEWER: Is that what you can recall?

JOEL: I am in total agreement with everything he just said. The only thing that would be different for me is my drive and when I got up. Everything else is exactly as he described.

INTERVIEWER: No we'll go back just a little bit if you don't mind. When you said there was copious amounts of water on the runway that you weren't used to. Or that you're - however you phrased it. There was a lot of water.

BRIAN: There was a lot - there was a lot - as we went down the runway there seemed to be large amounts of puddling, pooling water. That were on the runway.

INTERVIEWER: Now you said puddling and pooling. Was it areas or was it the entire runway was kind of puddling. I'm just trying to get a…

BRIAN: It seemed like the runway was -- everything was funneling into the middle. All The water was it not draining to the sides. Everything had pooled into the center of the runway and blended in. In other words I didn't see it upon landing. I didn't - I didn't in my flare and my approach everything I didn't look - when I looked down the runway I didn't see anything abnormal that was obvious to me that there were unsafe conditions other than we both knew that it was not a

dry runway. We knew it was a wet runway just not a deep standing water issue.

INTERVIEWER: Now, obviously it had rained because it was puddling. When you guys had the visual on the airport, you said it was about eight, ten miles give or take?

BRIAN: That's correct.

INTERVIEWER: Give or take. Did you see any rain showers?

BRIAN: It was not raining.

JOEL: No.

BRIAN: There was a - there was one cloud and a direct line. When I cancelled IFR there was one cloud between our airplane and the airport. We were at 2,200 feet there was one cloud between us and the airport and I was already setup on the right base. It was, it was setup like this and this, and this was the cloud [referring to physical object]. And there was - other than that there was no fog, no ceiling that was affecting me. And there was no rain shower at the field and the rain showers were moving towards us and we went in behind them and we had at least ten miles visibility.

INTERVIEWER: Now, you also said that you touched down on the runway, and I know it's hard because you're coming in at 108 knots so do you have an idea of where you were in relation to the touchdown markers on that end, on the approach end. Were you right in the middle of them, were you a little beyond them a little short of them when your wheels touched?

BRIAN: I was in the first thousand feet.

INTERVIEWER: OK. I'll give your voice a minute to rest now. You said the ref speed is 108. How did you -- I've never flown a Beechjet. So help me understand how you come up with that?

JOEL: It's in a chart in the checklist. Reference the weight, your landing weight, it gives you the speed.

INTERVIEWER: Could you show me that chart, by chance? Is it in - is it in this? [referring to object on table].

JOEL: We don't have it here now. It's in the checklist in the airplane itself….we can get it for you and show it to you.

INTERVIEWER: Alright. Now does that speed take into consideration - is it based solely on a dry runway, is it based on a wet runway? Wet with standing water? Do you know?

JOEL: It's based on your landing weight. One point three Vso on your landing weight.

INTERVIEWER: OK. And but then a lot of times there will be. Again I apologize I tried to get through that manual last night but the night was not long enough. Do you know if there are any charts that say if it's a dry runway it's at 108 knots or your landing distance is x, and if it's a wet runway you have to increase or decrease either of those factors?

BRIAN: The ref speed is the same for your landing weight. There is not an FAA approved wet runway chart.

TIM: Hawker Beech put out a contaminated runway performance chart but it was never FAA approved. And it's been presented on occasion but is always presented with its FAA approve and not one that you can legally use.

INTERVIEWER: So because it's not FAA approved I'll just assume you guys do not use it for any reference.

TIM: We don't carry it with us. No.

INTERVIEWER: And you said you were about 108 knots or you were right at ref as you crossed the threshold? I know it's hard for the pilot flying to know.

BRIAN: Anytime -- anytime I deviate from standard -- anytime the captain flying deviates from standard airspeed, the co-pilot would say you're too fast you're too slow, ref plus five, ref plus ten approximately a mile or two out I distinctly remember him saying ref plus ten in the meantime I'm obviously flying the airplane. There's no VASI that's available there no internal queue as far as a glideslope so to speak. I do remember coming in over the trees, obviously not even wanting to hit the top of the trees and also keeping with the airplane profile of ref. Coming in over 50 feet, three degree pitch and putting the airplane down in the touchdown zone and then that's where we are.

INTERVIEWER: Now do you guys -- when you called out your ref was 108 or whatever did you use the bugs on the side of the airspeed?

BRIAN: Yes sir.

INTERVIEWER: And you both had set those?

BRIAN: Yes sir.

JOEL: Right.

BRIAN: Yes. Like on departure he told me the bug on my side was 115 my V two was 115 if I lost an engine so I had that set on takeoff.

BRIAN: Then 108 was set on my side for landing.

INTERVIEWER: And now do you set like him, the V two for takeoff?

JOEL: I set V one.

INTERVIEWER: You set V one. And then do you remember I know it was a few days ago and irrelevant, but do you remember what the V one speed was?

JOEL: See. 15 probably around 102.

INTERVIEWER: Now are these speeds -- are they -- some, some manufacturers speeds based on every 1,000 feet of weight, 1,000 pounds of weight. Does Beechcraft break it down in 1,000 pounds, 500 --

BRIAN: 500.

JOEL: 500.

JOEL: There's a chart for flap settings, weight, temperature.

INTERVIEWER: Now, he had said that on landing you got the thrust reversers and you were doing the braking and you had got the –

JOEL: Speed breaks.

INTERVIEWER: Speed breaks, ground spoilers, everyone calls them a different term, but they're pretty much same thing. So I apologize if I say ground spoilers I didn't mean to throw you off there. Do you remember operating those?

JOEL: Right.

INTERVIEWER: And how do you know if these operate correctly?

JOEL: I get a light on the panel and my hand is on the switch holding the switch.

INTERVIEWER: OK. And your hand was on there?

JOEL: Uh huh.

INTERVIEWER: Do you have to hold it - is it spring loaded?

JOEL: It's magnetic but I keep my finger on it. And verify the light on the panel.

INTERVIEWER: And you did have that light?

JOEL: Uh huh.

INTERVIEWER: Now, obviously as you're coming to an end of the runway I can only imagine what is going through your mind. Do you remember though did your hand stay on that? At what point did you let go of that?

JOEL: I think both my hands went to the yoke when I realized we were going off the embankment. Cuz I braced myself I think that's why the yoke broke.

INTERVIEWER: And, do you guys when you apply thrust reverse is there an indication in the thrust reverse other than the feeling that you get as you're decelerating? Is there a light that comes on showing the buckets are deployed?

BRIAN: We have six lights. We have two unarm – two – we have unlock - unarm, unlock and deploy lights. So we have two rows of three lights and all six lights were on.

BRIAN: And I could also feel, via my hand, that both - at least the mechanism for them to deploy were working

correctly. They were not -- sometimes if the airplane feels like it is still flying it has an unlock, you know they stay locked, you can't lift them, I mean obviously for in flight purposes or something like that. They both deployed via my hand what I believed to be normal as well as visual.

INTERVIEWER: Now, I know every manufacturer is different and I'm just learning this one as I go along so maybe you can help me with this just a little bit. What does it -- do you know what it takes to actually unlock your thrust reversers?

BRIAN: The squat switch.

INTERVIEWER: Squat. Is there a flap setting that it has to have? To unlock it, do you know?

BRIAN: No. On test -- we test it on the ground on taxi out.

INTERVIEWER: Oh ok.

BRIAN: Flaps up, flaps zero. You can test it at flaps ten as well.

INTERVIEWER: Now how do you test it? Do you just test the operation if the buckets open and close or do you check that it actually slows you down?

BRIAN: We have a test on taxi out that what you want to do is test to make sure in case there's an inadvertent deployment at any time in the air that you can automatically stow em, so we do a stow test that we want to make sure the buckets deploy and that they will stow automatically. In case one deploys inadvertently. And that's what we test. And I did that test myself on the ground on taxi out in Charleston.

INTERVIEWER: You're busy on taxi out, aren't ya?

BRIAN: It's a busy time. The – the - the running the checklist and getting everything done.

INTERVIEWER: Especially if it's a short taxi out I can imagine how busy it gets. Now is that, when you check the deploy, the stow buckets - I mean when you check the stow switch.

BRIAN: Yes, sir.

INTERVIEWER: Is that every flight? Or would you have tested it going up to Peachtree DeKalb as well?

BRIAN: There's a procedure that was in place, when I first got my type rating, that you test it before every flight. They've since done away with that, you test it the first flight of the day.

INTERVIEWER: OK.

BRIAN: And that's what we did. That was the first flight of the day.

TIM: Assuming that the first flight is successful and the reversers deploy.

INTERVIEWER: Right. Understand. OK, it said that you based your ref speed on the weight. Do you do a weight and balance when you depart every time? I can only imagine how much time you have in these airplanes.

BRIAN: The, the airplane has a standard basic operating weight and with the weight of the airplane plus the two pilots its approximately 11,000 pounds. A little less, maybe ten, eight, nine. And we had 3,400 pounds of fuel. So we based it on a, approximately - with one passenger a 14,500 pound bird.

INTERVIEWER: OK. And you said he had uh, it was the passenger, a dog --

BRIAN: One dog, and one set of golf clubs. There was no suitcase, no nothing.

INTERVIEWER: Ok. Did you -- I mean -- doing the rough numbers there it looks like about a fourteen two, and then do you add his weight in there at all? Cause you said the weight plus the two pilots was ten eight plus about 3,400 pounds for fuel.

BRIAN: Right, and then he's about, standard, he's about 170.

INTERVIEWER: OK.

BRIAN: And then the dogs about a 50 pound dog so 220.

INTERVIEWER: That's a pretty good size dog.

BRIAN: 50.

INTERVIEWER: Yeah well that's a little [unintelligible] [laughing].

BRIAN: Well you're right most people who own private jets bring their pik a boos [laughing].

BRIAN: It's a little German, shorthaired pointer or something.

INTERVIEWER: Yeah. OK, and we noticed there's quite a bit of stuff in that final row, where there's the bench seat across the back there. Looks like shoes, umbrellas, books…

JOEL: Records maybe.

INTERVIEWER: Yeah, all sorts of stuff. Is that -- I mean it didn't look like it weighed a lot, but I was wondering is that calculated in with the ten eight or that or is that something that you would normally just kind of add in? When figuring I

mean it didn't look like it was going to be hundreds and hundreds of pounds but --

BRIAN: I mean that's ancillary stuff that maybe 40, 50 pounds that really that have-- Ive flown that airplane enough to know there's not a whole lot of extra suitcases hidden onboard [unintelligible].

INTERVIEWER: Nobody's storing they're gold bullion underneath or anything.

BRIAN: I think at fourteen five that was the closest um numbers that we could come up with, without having to interpolate anything else.

INTERVIEWER: OK. And then I apologize, it was a 30 something minute flight, I mean about how much fuel do you think you burned? Or do you have a totalizer that was showing you guys?

BRIAN: It should be in the airplane if it was, if it was.

INTERVIEWER: The gauge?

BRIAN: The gauge. Well no no, we have a totalizer.

INTERVIEWER: Right, up on your side?

BRIAN: In between us.

JOEL: Top of the panel.

BRIAN: Basically you can fly a Beechjet all you want and within the first hour you burn 1,500 pounds. Whether you climb up fast -- I mean it's, it's within 95% you'll 1,500 pounds - the first hour. So, approximately 800 pounds to a 1,000 is what we burned coming over here, a 35 minute flight.

INTERVIEWER: OK.

[Cell phone ringing.]

INTERVIEWER: You can take that if you need to, don't worry about it. Yeah, cause we saw the gauge was showing 1,050 on the - in the cockpit.

JOEL: The totalizer.

INTERVIEWER: Yeah, and we weren't sure if that was something you zeroed out every flight.

JOEL: Its zeroed out.

BRIAN: In – you know - I think the flight plan for 35 minutes over here, which, it was funny but it's not funny but going we fly him a lot -- but a lot of times its Charleston to PDK and that's usually a 50 minute flight. And so I [unintelligible] 50 minutes and then I realized Macons closer - I mean it was just mental math with me when I filed the flight plan. There was a 35, 40 minute flight it was about ten, fifteen minutes quicker that it would be to go into PDK. So that 1,050 pounds is, in my estimation, accurate.

INTERVIEWER: OK. And we never know. Obviously you saw the damage out there, gauges, numbers move, so we --

BRIAN: No, I would saw 1,050 pounds. And that's from engine start, we had a short taxi - we were not on. That's, in my opinion, accurate.

INTERVIEWER: OK…So then you just figured fourteen five just subtracted by the thousand so that's how you come up with your thirteen five and your ref. Ok.

INTERVIEWER: Now with -- I know you guys have -- it sounds like you both have flown this a considerable amount so when you get comfortable, you know what to expect. On landing did anything - obviously something felt different for lack of a better phrase. Can you kind of tell me? Pilots fly a lot by the seam of their pants too.

BRIAN: I just had no -- everything mechanically seemed to be working. In other words there was no soft pedal, there was no hard pedal. The brake action with my feet seemed, everything seemed to be normal. Everything happens in steps one through five, but everything happens together. You know as you're bringing the thrust reversers up you're getting on the brakes, etcetera. Speed breaks come out ever-- but there was no rapid deceleration, there was no - everything. If anything seemed to continue on as is without any -- until the first pulsation -- you know maybe the thrust reversers were, when I -- personally when I fly I bring the thrust reversers up and bring them to max reverse thrust. I've flown with some people who bring them up and there's not at max re - the power setting is not maximum. I bring the thrust reversers up and bring them to max reverse thrust, it's just my standard way of flying. And then my braking is firm. And when I -- it just -- when they started pulsating I knew I was hydroplaning after a couple of seconds and just could not get it to slow down. It was pulsating all the way down the runway. I mean not all the -- I would say it started pulsating at least halfway down the runway, I mean when it really started maybe to grab some runway. And the anti-skid -- other than that it just felt like I was on top of water - not - not decelerating um as rapidly as I'm accustomed to.

INTERVIEWER: Now, the runway out here is 4,800 feet give or take.

BRIAN: 46…4,670

TIM: 4,800.

INTERVIEWER: Give or take. Ballpark it. And you said about halfway down the runway it started pulsating. Typically when you land, and you're 2,000 feet down the runway, if you will, about what speed would you normally be at or do you remember what speed you guys were at when you started feeling that pulsation?

INTERVIEWER: That's ok if youdon't, I've flown enough that I'm not looking at my speed on landing. I'm lookin' out.

BRIAN: We have a call at 55 knots, the thrust reversers should be out of maximum. They don't have to be stowed, but they should be out of maximum RPM as to not throw debris to the front of the airplane and suck it into the engines. When we were hydroplaning we were not going -- that was not going to be my standard operating procedure to stow those thrust reversers. I never looked. My focus was out the window trying to keep that nose straight down the runway and I never looked down to see my airspeed halfway down the runway. I couldn't tell you, I just know that we were on the centerline as best I could with everything maximum and not slowing.

INTERVIEWER: OK.

BRIAN: The way that the plane should.

INTERVIEWER: So was there any 55 knot call?

BRIAN: No.

JOEL: No.

INTERVIEWER: So, and I apologize for speculating but was -- can I assume that until you realized you were going off the end of the runway you still were not at 55 knots?

JOEL: No.

BRIAN: No, it was -- we were both focused on getting that airplane stopped.

JOEL: Right.

BRIAN: With everything that we had --

JOEL: I didn't even care about 55 knots. I saw the end of the runway coming so he was gonna give it whatever he had.

BRIAN: We were hydroplaning, we were still hydroplaning. We hydroplaned until there was no not hydroplaning. To my knowledge.

INTERVIEWER: OK.

BRIAN: Even at slow speed, I really thought I was going to have it stopped by the end of the runway. I thought I was going to have it, but even at the slow speed with max RPM reverse thrust I still felt like I was still hydroplaning even as I went off.

INTERVIEWER: So as you went off as you were hydroplaning did you still feel pulsating?

BRIAN: I still felt water was built up between the rubber and the pavement. It still felt pulsating, but my speed was much lower, you know, when I went off the pavement.

INTERVIEWER: OK…Now, and again I apologize I wish I was more versed in the Beechjet, but do you know when the anti-skid kicks off. Is there a certain speed when it reaches a low speed that the anti-skid stops becoming an anti-skid and becomes regular brake for differential braking and things like that? Do you know if this one is equipped that way?

BRIAN: I think it's around 18 knots.

JOEL: That seems pretty low.

TIM: It's 12 to 20 knots, depending on the -- they vary a little bit with the airplane. But it is equipped. [Unintelligible]

INTERVIEWER: Now you said you went off, you had full thrust reversers out just – which - that's smart thinking cause why not slow yourself down as much as you can. Do you ever remember and it could be the hill itself made them stow, the jerk. Do you ever remember putting them down?

BRIAN: Nope. When I. It was a shock to me that I was going anywhere but straight flat. It was a shock to me. I had no idea that I was going down. The only thing I remember is some screaming, going down, and hitting hard and accelerating. Like, literally accelerating and then doing everything I could to get it stopped. And fuel cutoff and off -- we came to a stop after the second hill and the engines did not turn off and I reached up and hit the fuel and hydraulic valves, shut the engines off and tried to evacuate.

BRIAN: But it was a, it was a jolt coming. I mean my hands rode that thrust reverser to the end. I mean I was going to

have reverse thrust in that dirt. And it was, ya know, I was doin' what I could.

INTERVIEWER: OK. Normally when you stow the thrust reversers is there a --

BRIAN: There's a residual thrust.

INTERVIEWER: So there's a little bit of a -- I don't want to say acceleration but a less deceleration maybe?

BRIAN: No, when I. On a typical landing in the Beechjet, when you stow the thrust reversers at 55 knots and come out of max, and then stow em when you stow em. If your feet are not continuing on the brakes or if you're on a long runway and you're gonna taxi off 2,000 feet down the runway at a different taxiway, you will feel a push with the buckets stowing and that higher power setting from the residual engine thrust pushing you forward. You know it could be one of two things, one is when we hit my hand act-- stowed em. You know if they're on the throttles you know we hit and they stowed. And the residual thrust momentum hit me forward. Or my hand could have easily, you know they had to have stowed first before it went forward, but we definitely accelerated when we hit that road.

TIM: Just a second I'll be right back.

BRIAN: In my opinion. I mean it was --

JOEL: I totally agree. I believe the passenger; I mean if you get a statement from him, he may have the same opinion.

INTERVIEWER: OK. All right. Perfect.

BRIAN: But I do know this. They were not stowed when I got out of the airplane and they were stowed when I left that runway. I mean in other words, they're stowed now. You can see em, but when I went off that hill they were, they were at max reverse thrust.

JOEL: I mean, probably look at how much muds on the tail.

INTERVIEWER: Right.

JOEL: It just cleaned that hill off.

INTERVIEWER: And I apologize maybe my mind didn't hear what you just said correctly. Did you say when you got out of the airplane they were not stowed?

BRIAN: No no no. No no no. When I got out of the airplane they were stowed.

INTERVIEWER: Oh OK.

BRIAN: If I said that --

INTERVIEWER: No that's why I apologize because I don't think I heard you.

BRIAN: They were in a normal takeoff configuration when I got out of the airplane.

JOEL: When I got out of the airplane they were stowed.

BRIAN: They were stowed. Yes sir. Yes sir.

INTERVIEWER: And - and I apologize I probably heard it wrong.

BRIAN: I probably said it wrong - my bad.

INTERVIEWER: No no no.

BRIAN: They were unstowed going off the runway and off the cliff. And they were stowed when I got out of the airplane.

INTERVIEWER: OK. Now, walking through the cabin, the seats held up beautifully. Obviously your seat had some damage a little bit when they had to do some cutting, but overall how do you -- I mean I see you've got the busted lip a little bit, but do you guys have sore muscles, anything along that line from the impact, cause I mean look at the floor its pushed up and aft a little bit – it's -- you know I wasn't sure -- do you feel any pain, bruising, anything like that?

BRIAN: I ran seven miles yesterday.

INTERVIEWER: I would feel pain and bruising just doing that, so I'll take that as no unless you normally run twenty-six.

BRIAN: Nothing --no. I ran -- I mean it was exactly 30 hours after the incident. I went to -- I had to continue on with my life. I got on the treadmill and ran seven - exactly seven miles yesterday.

INTERVIEWER: How about you?

JOEL: Bumps, bruises, scrapes normal stuff. Some soreness here and there.

BRIAN: Lucky.

JOEL: Lucky. I'll take that.

INTERVIEWER: Yeah and look at the seats, there's not a lot of deformation so that's, that's a good sign. But we just -- it's part of what we want to make sure is – ok, this has happened, let's look at it and see if there's anything that

needs to be improved to increase -- I mean obviously the survivability was good because you both are here.

JOEL: Actually as hard as we hit I'm surprised I didn't have some back injuries so I guess that's a testament to the seat.

BRIAN: I had nothing more than advil.

INTERVIEWER: OK.

BRIAN: Maybe two beers that night. <laughing>

INTERVIEWER Just two?

<more laughing>

INTERVIEWER: Do you know what got your lip?

JOEL: The only thing I can think of is the yoke. The right side of the yoke is broken. And that would explain all the soreness in this hand and, I think, when we first hit it broke and my face went into the yoke because this was really jagged, it wasn't a clean cut. And the yoke is pretty jagged where it's broken. That's the only thing I can figure.

BRIAN: No teeth. No.

JOEL: It got the gum but thankfully it didn't go any further so I'm very fortunate.

INTERVIEWER: Absolutely, I'll take that any day. All righty -- since there was -- and it just gives us an idea of the weather. I apologize for --

BRIAN: No.

INTERVIEWER: For jumping back. Did you guys have to use the wipers at all? For any of the moisture in the air or anything along those lines?

BRIAN: No. The XM and the onboard radar plus our visual - we had good visibility all the way through and then we broke. We were IMC -- the controller came -- you'll hear it on the CVR, came on and said four two eight Juliet delta how's your ride right through there? And Joel came on and said light to moderate. It - it was --

JOEL: Very short lived.

BRIAN: A very short line of rain, nothing more than that. Came through it and had good visibility and everything else behind it, there was no rain between leaving IMC and the airport.

INTERVIEWER: OK.

BRIAN: And we were anywhere from 4,000 to 2,200 feet when we broke out IMC is my best gue -- We started talking to Macon Center - Macon Approach from eleven four and then down to 2,200 then we cancelled IFR. So we came in here VFR, you know like I said before Joel was on the number two com making the announcements and my setup for the visual to two eight and there was no rain, the rain had passed and it was at least ten miles east of the airport if any – whatever -- I did not land in heavy rain whatsoever, but there was definite ponding on the runway all the way down that was unexpected.

INTERVIEWER: OK.

BRIAN: I knew it was wet, but not standing.

INTERVIEWER: Now normally landing -- like landing on a dry runway -- how long does it usually take you guys to land and stop?

BRIAN: My -- In a thirteen or a thirteen five bird is usually 3,200 feet with no wind. You can take some factors into it or anti-skid not working etcetera and we have a spaghetti chart that you can go through to find exactly what it should take on a dry runway. At 13,500 pounds at a one o eight ref on a dry runway would be approximately 3,100, 3,200 feet. We had 4,700 feet and that's almost a 50 percent buffer. The airport that I fly in and out of on a daily basis has an ILS. It's a 6,000 foot runway that has an ILS. It's a 1,000 foot displaced threshold and the landing distance available is 4,800 feet. Even though its 5,000 displaced they say that because of the overrun or something that you get 4,800 feet, Peachtree DeKalb. So there was nothing based on, there was nothing in my mind that threw up a red flag that landing on a 4,700 foot wet runway with calm winds -- two two zero at four on a two eight runway -- there was on just wet -- there was nothing, no raining at the time, no precip at the time, no red flag that was thrown up, no excessive red flag that was thrown up that said this was a dangerous situation. Abnormal situation. Highly abnormal situation.

INTERVIEWER: Now let's take it out of here for a little bit. Let's go back up to Peachtree DeKalb there in your mind. Since that's typically where you land a lot. It's a similar runway [unintelligible]. I'm sure you've landed there wet.

BRIAN: Yes sir.

INTERVIEWER: How long does it normally take for you to stop there?

BRIAN: 4,000 feet. 3,000 to 4,000 feet. It's the same.

JOEL: Yeah.

INTERVIEWER: So it's not going to take you and the reason I was --

BRIAN: We --

INTERVIEWER: Saying that is because that's something that you'd have more chance to have an idea of wet versus dry. I'm sure it's going to be a little longer.

BRIAN: Landing at runway 20 I believe it's a taxiway, its not the end, but it's the taxiway just prior to the end where you taxi to the right. I don't have a airport - I don't have a chart in front of me, but it's a very very easy turnoff for the Beechjet.

INTERVIEWER: OK.

JOEL: There's nothing excessive you have to do, abnormal to stop the airplane.

INTERVIEWER: Ok. But it's not even a -- even versus -- you know taking it back to DeKalb there Peachtree DeKalb landing when its dry versus landing when its wet it's not a big difference in normal stopping.

JOEL: No. Not at all.

BRIAN: It's not excessive.

INTERVIEWER: It's not oh, I need to factor in a factor of 25 percent or anything abnormal?

JOEL: No.

BRIAN: No.

INTERVIEWER: OK.

BRIAN: That runway drains well and never had any in eleven years, never had any issues. Flying the Beechjet in and out of Peachtree DeKalb in wet or dry conditions.

INTERVIEWER: And you've flown that for, well Beechjet like that for eleven years?

BRIAN: I've flown a Beechjet. Started working – yeah for ten years. I think my type rating was in June of '02.

INTERVIEWER: OK. How about you, how long have you flown it?

JOEL: I got my type I think February '02 and then with nine eleven I went back to work on computers and took several years off and I've been back in the industry about three years and back in this particular airplane about a year.

INTERVIEWER: OK. Now, are you always in the left seat and you're always in the right seat or do you guys swap legs? Hows that work?

BRIAN: When Joel and I fly, we can swap or – I think most of the time we've flown –

JOEL: We swap.

BRIAN: I'm left seat. It just depends.

INTERVIEWER: OK. So you can swap back and forth not a big deal? And its not a hard transition I assume?

BRIAN: No, no it's not a hard transition.

INTERVIEWER: Since you've flown this one - well a Beechjet, for ten years, got a ballpark on how much time you have in type?

BRIAN: I have over 4,000 in type.

INTERVIEWER: How about total?

BRIAN: Over seven.

INTERVIEWER: How about you?

JOEL: Probably around 450 in type, 2,600 total.

INTERVIEWER: And part of the paperwork that goes along with this is there's a sheet for you to fill out, a sheet for you to fill out, about you. There's a whole grid at the bottom, total time make model, single engine, multi it has it broke down. Sometimes that kind of a nuisance to go through but it helps us have a clear understanding of experience and things like that, but obviously the hours you guys have. You have some experience. So we wanna -- we like that because it helps us understand, ok, these are experienced guys and this still happened. Why? It's not my first day flying it or that type of thing.

JOEL: Right.

INTERVIEWER: That's why I said that's half the pain there of accidents its filling out that form, to me it seems a little painful. You guys have pretty much answered all my questions the only thing is I'll go out and get that checklist you guys use to calculate ref and all that kind of stuff just so you can kind of walk it through with me so I have a clear understanding if that's ok. You guys got a few more minutes?

BRIAN: You know I do. <laughing>

INTERVIEWER: Ya never know.

<end recording>