RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: May 25, 2016
Person Contacted: Dave Simonik
NTSB Accident Number: ERA15LA140

Narrative:

On March 4, 2015, at 1000 EST, a conference call was held with Mr. Dave Simonik. The conference call was arranged by the National Transportation Safety Board, and present on the call were Timothy W Monville (NTSB-Investigator-In-Charge), Beverley Harvey (Accredited Representative for TSB of Canada - Senior Investigator, Operations / Air - Head Office Operations), David A. Gerlach (FAA Air Safety Accident Investigator), Scott Ridlon (FAA), Mike Spencer (FAA), Ms. Carole Pilon (Bombardier Production Test Pilot), and Jimmy Avgoustis (Bombardier Senior Air Safety Investigator).

Mr. Simonik's address, cell phone number, and e-mail address (not discussed on the call) are [redacted] Valparaiso, Indiana, [redacted] and [redacted]

He holds an airline transport pilot certificate with airplane multi-engine land rating, and has type ratings in CE-500, CE-650, CL600, G-159, HS 125, and LR 60. He also holds a commercial pilot certificate with airplane single-engine land rating, and a certified flight instructor certificate with airplane single engine, airplane multi-engine, and instrument airplane, that expires October 25, 2015 (FAA records indicate it expires on October 31, 2015). His pilot certificate number is [redacted] His total time is 8,988 hours, and his total time in make and model is 840 hours, of which 625 were as pilot-in-command (PIC); all time make and model is in the accident airplane. In the last 90 days his total time was 65 hours, of which 25 were as PIC, and the remainder as second-in-command. He obtained his initial type rating in the CL600 in March 2011, at CAE SimuFlite in Fort Worth, Texas. His last 135.297 check was performed in a Level D simulator at CAE SimuFlite on February 3, 2015, and his last 135.293 check in a CL-600 was also performed at CAE SimuFlite in August 2014. He holds a first class medical certificate with a limitation "must wear corrective lenses" issued January 15, 2015. He also has a Statement of Demonstrated Ability (SODA) for defective color vision, which has since been proven to be inaccurate,

although he still has the SODA certificate. He was wearing the correcting lenses at the time of the accident.

He began employment with the operator (Sage-Popovich) in February 2009, and was first hired as a captain. At that time they had a Hawker 700, and went to initial training receiving a PIC type rating for the HS-125. He then flew for a Part 135 Operator in the Hawker 700 for 3.5 years. In March 2011, he obtained his type rating in the CL-600, and flew rotating aircraft. He stopped flying the Hawker 700 in May 2013, and from that point forward he was only flying the CL-600. His type rating was always as PIC, but he would swap seats as co-captains swapping days.

He provided the following timeline information:

February 21, 2015 – He indicated that he flew an evening trip for the owner from Gary, Indiana, to Indianapolis, Indiana, and arrived back to Gary, Indiana about 2130. He estimated he was home before 2300, and went to bed about 2330.

February 22, 2015 –He indicated that he woke up between 0900 and 0930, and went to bed between 2130 and 2200. He reported no life issues.

February 23, 2015 – He woke up between 0900 and 0930, and went to bed at 2130. He reported no life issues.

February 24, 2015 - He woke up between 0900 and 0930, and went to bed at 2130. He reported no life issues.

February 25, 2015 - He woke up between 0900 and 0930, and went to bed at 2130. He reported no life issues.

February 26, 2015 – He indicated that a trip was planned to fly from GYY to PBI, and was initially scheduled for a 0700 departure. He awoke between 0300 and 0330, showered, had breakfast, and was at the airport at 0500. After arrival he began getting the airplane ready, and the passengers arrived later than planned. He began loading the airplane about 0715, and it began snowing. The airplane was de-iced, and after doing so the flight departed. They flew to PBI, reporting the flight time was 2 hours 30 minutes. The landing was uneventful later reporting that the thrust reversers, anti-skid, and brakes worked normally. The airplane was taken to the charter Maintenance, Repair, and Overhaul (MRO) facility, for the 36 month weighing requirement. The airplane was secured, and the company Director of Maintenance who was one of the passengers stayed with the airplane. He and the co-pilot (Jim Sheely) boarded a commercial airline flight that departed PBI at 1430, and flew to Chicago O'Hare. There, a limousine picked them up and drive them to the hangar at GYY, arriving there at 1900. He left for home arriving there at about 2000 hours, and went to bed about 2200 hours.

February 27, 2015 – He reported having an easy morning. After waking up at 0800, he shoveled the snow, and reported going to bed at 2200.

February 28, 2015 – He reported a normal wake up time, and he did not fly that day, though he flew commercially to PBI, departing Chicago O'Hare at 1900. The flight was delayed and he reported arriving at PBI at 2300.He had no bags, and was driven by hotel shuttle to his hotel where he ate the remaining ½ of his sandwich, and went to bed about 2400.

March 1, 2015 – He woke up about 0830, and met Jim Sheely for breakfast in the hotel. They stayed there for about 1.5 hours, and Mr. Sheely indicated he needed to do paperwork for the MRO, and left at 1030. He (Dave) began getting ready for the flight by putting the flight plan together, and calculating fuel loads. He looked at the fuel prices at the various airports there were flying to. He was picked up at the hotel by the flight attendant (F/A) at 1200, and drove to PBI. The flight was scheduled to depart PBI at 1430, but when he arrived at PBI the airplane was still in the hangar. The Director of Maintenance had the MRO replace the No. 3 tire, and the airplane was signed off. He helped the F/A with loading the catering supplies, and the performed housekeeping duties of the cockpit. He then again helped the F/A, and the airplane was then pulled outside. Mr. Sheely began doing the paperwork while he did the exterior preflight and prestart inspections. He reported the walk around was OK, and he noticed that maintenance had serviced the hydraulic and brake accumulators. At that point Mr. Sheely returned, and he helped the F/A. He (Dave) went to Atlantic fixed base operator (FBO), and filed the flight plan for the flight from PBI to MTH, then the second flight plan from MTH to MKY, where the owner had a speaking engagement. They then planned to depart MKY at 1900. He also obtained weather and printed it out, obtained NOTAM information, calculated the weight and balance. Performance calculations for both flight legs (PBI-MTH and MTH-MKY) were accomplished using "Ultra-Nav Aviation, Inc. Canadair 601-3A/R Performance, Version 4.2 (2009) N600NP" which is loaded onto my personal laptop computer and backed up using "Aircraft Performance Group Mobile Performance, Version 1.38.1, for N600NP CL-601 CF34-3A which is on a company provided Apple I-pad. He indicated that to confirm they were not using “"generic tab data" from the Pilot's Quick Reference Handbook.”

PBI-MTH – The wing tanks were topped off, and the fuel load for calculation purposes was 9,800 pounds, though they actually had 9,500 pounds on-board at taxi out from PBI. The takeoff weight was 36,700 pounds. The performance calculations indicated the takeoff distance was calculated to be 3,990 feet, V1 was 114, VR was 127, V2 was 134, and Vfs was 155 knots indicated airspeed (KIAS). The calculated emergency return speed was 136 KIAS, and the D1 (Landing Distance from 50 feet) was 3,264 feet and the D2 (distance/0.6) was 5,441 feet. Based on an estimated landing weight of 35,300 pounds (actually was 35,000 pounds), the Vref speed was 134 knots, and the D1 distance was 3,177 feet.

The 3 passengers boarded the airplane which included 2 adults at 189 pounds, 1 minor at 76 pounds, and 140 pounds of baggage. The engines were started, and there were no issues after engine start. The after start checks were performed and the airplane was taxied out. The takeoff was OK, and the flight proceeded to MTH uneventfully. While descending for MTH it was busy with aircraft, but as the flight approached MTH, there was no other traffic. The co-pilot performed the descent, and approach checklist items, and with the auxiliary power unit (APU) running, they descended to 2,000 feet. When the flight was 5 miles from MTH the airport was in sight, and they requested a visual approach with Miami Air Route Traffic Control Center. They slowed and extended the flaps to 20 degrees, and joined the traffic pattern lowering the landing

gear and extending the flaps to 30 degrees. The co-pilot performed the before landing checks, and told him it was done. While on final approach about 1.5 miles from the runway, the flaps were extended to 45 degrees, and they flew the approach at Vref speed plus 10 knots, slowing the Vref speed over the runway threshold. At touchdown, the ground spoilers and thrust reversers were deployed and normal braking occurred. The airplane was taxied to the east end of the general aviation ramp, where the airplane was parked while the APU was kept running. The passengers were not ready for their arrival, and while at MTH, the co-pilot remained in the airplane. He (Dave) went into the FBO, and paid the landing fee. No fuel was purchased at MTH. The three passengers showed up about 20 minutes later, and their bags were loaded into the airplane.

MTH – MKY –

The airplane had 6 passengers and 3 flightcrew members. Four of the passengers were 189 pounds, 1 passenger was 250 pounds, and 1 minor passenger weighed 76 pounds. There was 230 pounds of baggage, and the calculated fuel load was 8,400 pounds, but it was actually 7,700 pounds at taxi out. The aircraft weight at takeoff was 36,100 pounds, and the takeoff distance was calculated to be 4,020 feet (dry). The following speeds were calculated: V1-113 KIAS; VR-125 KIAS; V2-133 KIAS, VFS-153 KIAS, and emergency return speed was 135 KIAS. The calculated landing weight at MKY was 35,100 pounds, and the Vref speed at MKY was calculated to be 133 knots. The landing dry distance was calculated to be 3,166 feet and because there was rain in the forecast, the calculated wet landing distance was 4,166 feet.

After the passengers were boarded the co-pilot called flight service to obtain their IFR clearance, and he (Dave) started the engines and did the after start checklist reporting no issues. The obtained their IFR clearance, set up their flight instruments. The taxied out, and at the end of the runway there was 1 airplane (Beech Baron) ahead of them. They waited for it to depart, and reported there were no other aircraft in the traffic pattern. He (Dave) asked the Beech Baron pilot if he intended on staying in the traffic pattern, and the pilot reported he was departing to the east. Their void time allowed for no rush, and they did the line-up checks and static run-up OK. The flight departed and on gear retraction, he noted the nose landing gear was slow to retract but later indicated a typical reason for that could be associated with excessive airspeed. The nose landing gear retracted and there were no further abnormal indications. Once outside of the traffic pattern they called air traffic control and were cleared as filed, and cleared to climb to 10,000 feet. The flight proceeded to MKY and there was nothing abnormal; the APU remained running the entire flight because of the short duration (20 to 30 minutes). They obtained the automated weather observing station (AWOS), which indicated the wind was from 250 degrees at 5 knots, the visibility was 10 miles, and the altimeter setting was 30.21 inches of Mercury.

They reviewed the speeds, and the Vref speed was 133 knots, with a calculated landing distance of 3,166 feet. They planned a visual approach to runway 17, and at 10 miles from the airport they had it in sight. They waited a couple miles then requested a visual approach from Fort Myers Approach, which was approved. They changed to the common traffic advisory frequency (CTAF), and entered the left downwind leg from the south. The slowed, lowered the flaps to 20 degrees, and noted rain 2 to 3 miles east of MKY, though the airport appeared to be dry. Because of the rain he elected to fly the traffic pattern closer to the runway (1/2 mile) on the downwind

leg, which he extended an extra mile to avoid the rain. When the flight was abeam runway 17, the co-pilot lowered the landing gear, and extended the flaps to 30 degrees. The landing checklist was performed (it was normal), and the anti-skid test was normal. The thrust reversers were armed, and he performed a "teardrop turn" to final. The flaps were extended 45 degrees, the landing gear was down, and he was flying Vref plus 10 knots, with a couple of gusts encountered during the approach. The co-pilot checked the AWOS again; the wind was still 250 degrees at 5 knots. They were not in the rain, and he maintained a normal glide path at Vref plus 4 or 5 knots at the runway threshold. The 50 foot call-out occurred, and the thrust levers were placed to idle at the threshold. He indicated the touchdown point was just past (300 to 500 feet) beyond the aiming point marking, and reported the touchdown was firm. After touchdown he tried to extend the ground spoilers but was unable, later indicating this may have been due to the complex process required. He reported the ground spoilers did not deploy, and when the nose landing gear contacted the runway, he applied the brakes and held the control yoke forward, but felt no deceleration. He indicated also trying to get the thrust reversers to deploy but indicated he did not think they deployed and he did not see any thrust reverser deploy lights. He indicated that each piggy back lever never unlocked; he could not get the levers into the reverse position.

He indicated that he added "moderate" brake pressure but did not feel any deceleration. He informed the co-pilot there was no braking energy and released the brakes and turned off the anti-skid, then re-applied the brakes pressing hard. He did not feel any deceleration, and still tried to deploy the thrust reversers, but was unable. He kept the airplane on the runway centerline, and began modulating the brakes. He knew he was unable to stop the airplane, and also knew there was water beyond the end of the runway which contained crocodiles and alligators. He added right rudder input and the airplane veered to the right. The airplane went off the end of the runway into sand causing the nose landing gear to collapse. The nose contacted the ground and the airplane came to rest. He ordered an emergency evacuation, and secured the engines. At that time the piggy back levers were still up; he then pushed them down and secured the engines and pulled the firewall shutoff valves. They secured the APU and the owner opened the cabin entry door. The passengers exited the airplane and power was secured. Dave exited the airplane followed by the co-pilot. Once outside the airplane they performed a head count, and about 1 minute later, someone from the airport came and said they had called fire rescue. They remained several feet away from the airplane.

Follow-On Questions by National Transportation Safety Board –

Were there any abnormal annunciations during the approach – No.

Did you perform challenge response – No Jim did the approach landing checklist himself.

At MTH landing was the landing OK – The thrust reversers deployed, and also the ground spoilers which require manual operation. He indicated the process of activating the ground spoilers requires 4 movements to activate including pulling out and moving over a detent, pushing a button, and pushing the control over a detent. If that gets out of sequence, you would be unable to deploy the ground spoilers. At MTH the ground spoilers deployed OK

Is it possible the ground spoilers at MKY were out of sequence – It is possible because it is done by feel.

How much time did you estimate attempting to deploy the ground spoilers – Estimated 4 to 5 seconds. He did not want to mess too much longer because of the short runway.

How many times did you attempt to deploy the ground spoilers – Once

Describe brake modulation – He indicated brake pressure is 3,000 psi, and with brake application and no anti-skid, there is no protection. He indicated he was taught to apply the brakes "lightly" to feel, and "modulating" to him means "apply with modulation of foot but with no full motion release."

Describe the touchdown point – Estimated 300 to 400 feet past the 1,000 foot marker. He was aiming for between the threshold and the 1,000 foot marker, reported the landing was not a greaser.

Describe the wind – He indicated it was very light and the airplane was not drifting.

Describe the speed at the runway threshold – He was at Vref speed plus 3 to 4 knots with the thrust levers at idle over the runway threshold.

Follow-on Questions by Bombardier –

Did the flight spoilers retract before securing the engines – Yes

Was the nose wheel steering OK –Yes the only issue at MTH was that the nose landing gear was slow to retract

At MKY did it feel like the nose wheel steering was maintaining runway centerline – Yes

Confirm the flap position on landing at MKY – 45 degrees

What was the name of the MRO at PBI – B-Coleman where the airplane was weighed. The company Director of Maintenance had the No. 3 tire replaced. The tire was shipped from the operator's facility.

While at the MRO were the hydraulic and brake accumulators topped off – Yes

While at the MRO were the oleo struts serviced – He was not told they were serviced.

Was there any recent issue with the weight-on-wheels (WOW) switches or landing gear – He indicated that 1 to 2 years ago while taxiing, the anti-skid would not test or WOW had an input failure. The landing gear control unit was replaced.

Is the weight and balance sheet available – Yes

What were the injuries – One passenger (female) complained of back soreness and was taken by ambulance to the hospital. Later, one passenger (Mr. Popovich) complained of arm and wrist soreness and also went to the hospital where he had a possible fractured wrist and clavicle.

After touchdown was there any abnormal steering issues – He was able to maintain runway centerline with no indications of a nose wheel steering failure.

Follow-On Questions by National Transportation Safety Board –

Where was Mr. Popovich seated – Forward facing club seat on right side of the airplane.

Did you feel the injury to Mr. Popovich was related to the accident or evacuation – It was likely due to the event.

Follow-On Questions by FAA –

Describe the weather conditions after landing – The rain shower east of the airport during their approach moved over the airport and it rained 5 to 10 minutes after they came to rest. He was not sure if the wind direction changed.

What frequency does the AWOS update – He is not sure. They obtained the 2100 UTC observation.

Do you think the spoilers or thrust reversers are more effective – Thrust reversers

Follow-On Questions by Transportation Safety Board of Canada –

What percent of landings do you perform on short or similar length runways – He indicated they fly to MTH on a regular basis, or 12 times a year, and it too has a 5,000 foot long runway (actually 5,008 feet long). He also indicated that when he flew for the previous operator, they were based at an airport (Lansing, Illinois KIGQ) which had a 4,000 foot long runway.

Describe SMS with the company – He has nothing to comment

Follow-On Questions by National Transportation Safety Board –

What do you think occurred – Think the ground spoiler control from a pilot's perspective is difficult to deploy on landing. From training, he has been given an anti-skid failure, but that is usually given when operating on a 10,000 foot long runway, and the failure is typically given after landing when the airplane has slowed. It is not given when operating on a short runway with high speeds and suspected brake failure. On his most recent check ride the shortest runway used was 6,500 feet.

Did the co-pilot activate the parking brake handle during the landing roll – He may have. I informed him that the co-pilot told the company Director of Maintenance that he pulled the parking brake handle.

Follow-On Questions by Transportation Safety Board of Canada –

Did you see the Master Caution illuminate – He did not recall seeing the Master Caution illuminate during the landing roll. Due to system design, any Master Caution illumination would have occurred 4 seconds after system failures are detected.

The digest was e-mailed to him for review on March 6, 2015, at 2333 EST. He replied on March 9, 2015, at 1422 EDT, with, “Good day Mr. Monville,

I have reviewed your draft notes from our phone conference on March 04, 2015. All looks good with the following changes and additions...

1. page 1, the spelling of my home street address is [redacted].
2. page 1. My total aircraft time stands at 8988 hours.
Total time in make/model CL-600 is 840 hours, of which 625 are Pilot-in-Command. All time is in N600NP. Time in last 90 days was 65 hours, of which 25 hours were Pilot-in-Command and 40 hours as Second-in-command.
3. page 2, second paragraph. When hired at Sage-Popovich, on initial training for Hawker 700 I did earn a Pilot-in-Command type rating for the HS-125.
4. page 1. I earned my initial type rating in the CL-600 in March of 2011. The date of May, 2013 on my certificate was due to having my social security number removed from my airman certificates at that time.
5. page 1. My last 135.297 check was on February 03, 2015. Last 135.293 in CL-601 was in August 2014 conducted at CAE Dallas-Fort Worth, Texas.
6. page 2, first paragraph. I stopped flying the Hawker 700 in May of 2013 and was strictly in the CL-601 from that point on.
7. page 3, third paragraph. Performance calculations for both flight legs (PBI-MTH and MTH-MKY) were accomplished using "Ultra-Nav Aviation, Inc. Canadair 601-3A/R Performance, Version 4.2 (2009) N600NP" which is loaded onto my personal laptop computer and backed up using "Aircraft Performance Group Mobile Performance, Version 1.38.1, for N600NP CL-601 CF34-3A which is on a company provided Apple I-pad. I state this only to confirm we were not using "generic tab data" from the Pilot's Quick Reference Handbook.
8. page 7, follow-up question by TSB. At my previous operator, I was actually based at an airport with a 4,000 foot runway. (Lansing, Illinois KIGQ)
9. page 8, follow-up question by TSB. Due to system design, any Master Caution illumination would have occurred 4 seconds after system failures are detected.

Addition:
1. I remembered that when we were in the pattern at MKY Jim Sheely turned on the APU Generator, which was not a normal thing and I commented on it.

In answer to your recent e-mail regarding windsock. I did not specifically see the/a windsock but I do recall asking Jim Sheely to re-check the AWOS for the winds when we were on downwind for Runway 17. I did not listen in to the AWOS frequency but Jim stated the wind was still 250 degrees at 5 knots.

David Simonik
Pilot-in-Command
N600NP
Sage-Popovich, Inc.”

These changes were incorporated into the narrative.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: May 24, 2016
Person Contacted: Rowley James "Jim" Sheely, Jr.
NTSB Accident Number: ERA15IA140

Narrative:

On March 3, 2015, at 1400 EST, a conference call was held with Mr. Rowley James "Jim" Sheely, Jr. The conference call was arranged by the National Transportation Safety Board, and present on the call were Timothy W Monville (NTSB-Investigator-In-Charge), Beverley Harvey (Accredited Representative for TSB of Canada - Senior Investigator, Operations / Air - Head Office Operations), David A. Gerlach (FAA Air Safety Accident Investigator), Scott Ridlon (FAA), Ms. Carole Pilon (Bombardier Production Test Pilot), and Jimmy Avgoustis (Bombardier Senior Air Safety Investigator).

Mr. Sheely provided an address of [redacted] La Crosse, Indiana, [redacted]. He provided a cell phone number of [redacted] and an e-mail address of [redacted]

He holds an FAA airline transport pilot certificate with airplane multi-engine land rating, and has type ratings in CE-500, HS125, G1159, GIV, G200, and CL600; the last date of issue was 20 December 2008. He also holds a commercial pilot certificate with airplane single-engine land rating. His pilot certificate number is [redacted] He estimated his total time is 17,000+ hours, and his estimated total time in make and model is 1500+ hours, and approximately 10 hours make and model in the last 90 days. He obtained his type rating in the CL600 in December 2008 from CAE, and his last 61.58 check in the CL600 was performed in June 2014, which was also performed at CAE. He holds a first class medical certificate with no limitations issued February 24, 2015.

He began employment with the operator of the CL600 in 2007 as a full time employee as the Chief Pilot. At that time they had only 1 HS125, then in 2008 they obtained the CL600. While with the company, his paychecks reflected Sage-Popovich. Also while at that company, with 3

other captains they took turns in the left and right seats. He indicated that he had flown with Dave for years.

In July 2014, he took a Director of Operations position for Coleman Jet, but continued to be a contract pilot with Sage-Popovich. This was the case of the incident flight, which was operating under 14 CFR Part 91 as a personal flight.

He provided the following timeline information:

February 22, 2015 – Flew a Gulfstream from Salt Lake City, Utah

February 23, 2015 thru February 26, 2015 – Was in the office. On February 26, 2015, he flew right seat in the incident airplane to Palm Beach International Airport (KPBI), for a 36 month weight and balance check. He returned via a commercial airplane.

February 27, 2015 – He was off work and home this day.

February 28, 2015 – He did not fly this day, but flew commercially to PBI, landing there about 2255. After landing he went to the hotel and direct to his room where he immediately went to bed.

March 1, 2015 – He woke up about 0700, went to the fitness center, cleaned up, then had breakfast. He left the hotel at 1100, and met an individual for lunch near PBI. He departed for PBI about 1230, and when he arrived Dave was performing a preflight inspection of the airplane. Once there, they picked up employees of the company, one of whom was Steve Chase, and one was a company salesman. The airplane was fueled adding 978 gallons of fuel, bringing the fuel load to 9,500 pounds. A flight plan was filed for an estimated takeoff at 1440 EST. With 3 flight crew members and 3 passengers on-board, they flew from PBI to The Florida Keys Marathon Airport (KMTH); the planned flight duration was approximately 30 minutes and while there they intended to pick up Mr. Popovich and 2 friends. They checked the anti-skid and thrust reversers and there were no discrepancies. They filed an IFR flight plan, and proceeded to KMTH. With the airport in sight, they cancelled their IFR clearance. The calculated landing weight was 35,300 pounds, and the Vref speed was 134 knots. On final approach they were Vref plus 10 knots and was at Vref speed over the runway threshold. The airplane was landed with full flaps on the 5,000 foot long runway (runway actually is 5,008 feet long), and after touchdown they activated the ground spoilers and thrust reversers and were instructed to turn off at A6 intersection, but because of the location of the passengers, they rolled to the end of the runway. They taxied to the ramp and left the APU running while waiting on the ground 30 minutes for the 3 passengers to arrive; he remained in the airplane. No servicing or maintenance was performed while at KMTH.

The flight departed KMTH with 3 flight crew members, and 6 passengers; Dave was the pilot flying. The intended destination was Marco Island Airport (KMKY), Marco Island, Florida. The takeoff was OK, but after takeoff Dave mentioned that it seemed to take longer for the nose landing gear to retract, but it did retract and the light went out. The flight proceeded to KMKY, which was VFR with some clouds. While in contact with Fort Myers Approach Control, they performed the in-range, approach, and before landing checks. At some point the controller asked

if they wanted to cancel the IFR clearance in-flight or on the ground, and the reply was on the ground.

He indicated they did the challenge response to the CAE checklist approved by Bombardier, and armed the ground spoilers, and thrust reversers. Before landing they checked the anti-skid and all indications were normal. He reported there were rain showers 5 miles east of the airport, but the runway was dry. With the airport in sight, the AWOS indicated the wind was from 250 degrees at 5 knots, which favored runway 17. They flew the downwind leg at a speed below the gear and flap speeds, and lowered the landing gear at 180 knots. They did the before landing checks, and turned onto final approach with full flaps extended. He indicated the calculated Vref speed was 133 knots, which they were at when they crossed the runway threshold. The approach was normal until touchdown, and he estimated the touchdown spot was just past the aiming point marking, or slightly more than 1,000 feet down the runway, which is within the first 1/3 of runway.

Because the airplane is older, you are required to manually deploy the ground spoilers. After touchdown the first indication of a problem was he could tell the captain was unable to extend the ground spoilers. The captain did not mess with them for too long then with the engines at idle thrust, the captain attempted to raise the piggy back levers to deploy the thrust reversers but the piggy back levers would not unlock. He also reported there was no braking. He reported he did not sense deceleration, and to him it felt like they were skidding on ice. His feet remained off the brakes. The captain said there was no brakes, and both reached for the anti-skid switch, but he (Jim) believes he reached it first and turned it off. Dave then applied the brakes initially, and he too then got on the brakes a few seconds later because he felt no acceleration. He was sure they were not going to stop on the runway, and went off the runway while travelling about 35 knots about 250 feet into sand. With water ahead, Dave applied right rudder, and at that time, the nose landing gear collapsed. The captain ordered an evacuation, and all exited via the cabin entry door. Because there was a flight attendant on-board, that person assisted the passengers with the evacuation and got them safely away from the airplane. After coming to rest a rain shower came over the airport. He reported he was the last person out of the airplane. With respect the airstair door he indicated it was difficult because you were actually stepping on the point of the step.

He reported that nothing about the approach was unusual, and the event occurred fast. He relayed there was no anti-skid or no weight on wheels (WOW) annunciations or failed lights, and no warnings from the Enhanced Ground Proximity Warning System (EGPWS). The calculated wet stopping distance was less than 4,200 feet, while the calculated dry stopping distance was less than 3,200 feet. He indicated there was no discussion between him and the captain for a go-around, because the problem became evident when the airplane was too far along the runway.

Follow-on Questions by Bombardier –

Was the nose wheel steering effective? – Yes, the airplane was kept on runway centerline. Jim indicated that Dave was on the brakes hard, and either kept the airplane straight by nose wheel steering or symmetrical braking.

On landing did you see any amber lights for the thrust reversers? – He did not see any amber lights and the thrust reversers did not deploy.

At KMTH, was the airplane towed? – No. He remained in the airplane the whole time.

At MKY is the runway smooth? – Yes

Was the captain able to extend the piggy back levers? – Not past the first detent

Were there any MEL items? – No

When was the anti-skid turned off? – About ½ way down the runway

What was the landing weight at KMKY? – Just under 35,000 pounds

Was any recent maintenance performed? – At KPBI, the airplane was re-weighed, a RVSM inspection was performed, and the No. 3 tire was replaced.

Were the Oleo Struts Serviced at the Last Maintenance? – Not sure, the Work Order will show any recent work performed.

Follow-On Questions by FAA –

Describe the touchdown – It wasn't a greaser, but was solid but not hard. There was no floating. He could feel the gear contact the runway, and the nose landing gear did not come down hard; Dave let it come down.

Describe the feel of the brakes after anti-skid was turned off – He waited for Dave to say there was no braking and for him to deactivate the anti-skid before applying the brakes.

Was there any communication between the captain and him about the brakes – He reported both flightcrew members reached for the anti-skid switch, but he (Jim) thinks he reached it first and turned them off. Dave then got on the brakes initially. He (Jim) did not get on the brakes until a few seconds later because he felt no deceleration. He reported they felt "rock solid", and he noted normal brake pressure, but still he felt no deceleration.

Have you had in the past an issue with the ground spoilers not deploying? – No. The ground spoilers do require a specific sequence, which consist of pushing a button and then in a fluid motion raising the handle.

Who deploys the ground spoilers? – This is done by the Pilot Flying, because it is within easy reach.

Follow-On Questions by Transportation Safety Board of Canada –

In hindsight, what would you have done differently? – I should have tried to get the ground spoilers out after Dave was unsuccessful.

Follow-On Questions by National Transportation Safety Board –

What do you think occurred? – In speculating, it could relate to the weight on wheels switches, thinking the airplane was in the air, preventing the thrust reversers and ground spoilers from deploying. He indicated he had never experienced that before.

What time did you depart KMTH? – Out at 2049 and Off at 2054. He indicated that Flight Tracker indicated they landed at 2120, for an elapsed flight of 24 minutes.

Follow-on Questions by Bombardier –

How long did power remain on the airplane after stopping? – He stated they secured the airplane pretty quickly, or within 30 seconds, but mentioned that he did not secure the emergency lights. He was told by fire rescue to disconnect the aircraft's battery because they thought there was fuel leakage, he did so within about 15 minutes.

He indicated that he needs to give credit to Dave for keeping the airplane on the runway centerline.

Follow-On Questions by National Transportation Safety Board –

Were there any distractions during the approach or landing? None. The only extra work was to get the updated AWOS, which indicated scattered clouds existed at 25,000 feet. The wind was from 250 degrees at 5 knots, the visibility was 10 miles, the temperature and dew point were 27 and 20 degrees Celsius, and the altimeter setting was 30.21 inches of Mercury.

FAA Inspector Scott Ridlon interjected at the end that he had entered the conference call at the beginning. He was asked to confirm he was there only for the safety side of the investigation, he indicated that was correct.

The FAA Inspector-In-Charge for the investigation is Michael Spencer, of the Miramar, Florida.

Per phone call March 6, 2015, at 1943 EST. The call was made to (219) 713-2089.

He indicated that as a "last ditch effort" he did reach over and pulled out the parking brake handle, but did not turn it. He estimated the airplane at that time was near the departure end of the runway. He also indicated that since the accident, he estimated that about 19 seconds elapsed between the time they recognized a problem existed at the 2,500 foot point of the runway with

regards to the thrust reversers, ground spoilers, and anti-skid, and the time they would have been at the end of the runway.

The digest was e-mailed to him for review on 3/6/2015, at 2007 EST. He replied on March 7, 2015, at 1632 EST, with, "Tim, after reviewing our phone conversations I was impressed it was very comprehensive. I only had a few comments.

1. Page 1 paragraph 2 - Mr. Rowley should be changed to Mr. Sheely

2. Page 2 paragraph 6 - Just a note on my activities on February 27th. I was off work and home that day.

3. Page 3 last paragraph - The question was about the amber lights for the thrust reversers. I did not see any amber lights and the thrust reversers did not deploy.

4, Page 4 on the Follow-On Questions by FAA --3rd paragraph. We both reached for the anti-skid switch. I think I got there first and turned them off and then Dave got on the brakes initially. I did not get on the brakes until a few seconds later because I felt no deceleration. I still felt no deceleration.

Attached is a summary of the incident I sent to the FAA Inspector Michael Spencer.

Thanks

R James Sheely
Chief Pilot
[redacted]
Office: [redacted]
Certificate #IEYA828T."

These changes were incorporated into the narrative.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: May 25, 2016
Person Contacted: Kathleen Hanley
NTSB Accident Number: ERA15LA140

Narrative:

On April 15, 2015, at 1300 EDT, a conference call was held with Kathleen Hanley. The conference call was arranged by the National Transportation Safety Board, and present on the call were Timothy W Monville (NTSB-Investigator-In-Charge), Beverley Harvey (Accredited Representative for TSB of Canada - Senior Investigator, Operations / Air - Head Office Operations), Ms. Carole Pilon (Bombardier Production Test Pilot), Jimmy Avgoustis (Bombardier Senior Air Safety Investigator), and John Kelly, council for Ms. Hanley.

At the beginning of the phone call she and her attorney were advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. She was also informed that any person NTSB talks with has the right to representation. They were also advised that the interview was not recorded, but notes would be taken and would be typed up and provided to them for review and comment. The approved version of the notes would be placed in the NTSB public docket, and any personal identifying information will be redacted from the document that is placed in the public domain.

She provided a mailing address of [redacted] River Forrest, Illinois, [redacted] and an e-mail address of [redacted] Her date of birth is [redacted] and her cell phone number is [redacted] She is not a pilot, and has never taken flight training. On the day of the accident, her title was “Charter Sales Specialist” for 600 Charter Brokerage, Global Air. Her paychecks were from Sage-Popovich. She began employment with that company on February 4, 2015, and was terminated on March 4, 2015. She indicated that prior to the accident flight, she had never previously flown in a Corporate type aircraft. The flight was her first charter ever.

She indicated that she boarded the airplane in West Palm Beach, Florida, reporting there at 1430 on the day of the accident. She indicated that the company mechanic, his 14 year old son, a flight attendant, and the 2 pilots flew the airplane from West Palm Beach, Florida, to Marathon,

Florida, departing at 1500. During this flight she was in one of the passenger seats in the back of the airplane, and Michael (mechanic's son) was in the jumpseat. They landed at Marathon at 1530, and she got off the airplane. Mr. Popovich was running behind, but arrived between 1545 and 1550. Once there, the owner (Nick Popovich and 2 of his friends Joe and Suzy Buczek boarded the airplane. Because she was new to her position, she asked to sit in the jumpseat, which was approved. The flight departed Marathon for the intended 20 minute flight, and before landing at Marco Island, she indicated the flight was smooth, and while airborne, she could see the airport and the runway. She noted a storm to the right describing the clouds as "pitch dark" but it was sunny to the left. She indicated that the flight was not straight in to the runway, rather, the flight was to the right of the runway while on approach. Before landing the pilot made a sharp turn from right to left, and then Dave looked to the sunny side. She noticed the airplane was getting closer to the runway, and she thought it was "a little steep." After touchdown she reported the ride as "rough" and reported they bounced right and left. She indicated the airplane was in a left wing low attitude for some time, and Dave and Jim's hands were on the middle quadrant and she heard them say they were not working. After the crash, she believed the comment to be associated with the thrust reversers. She remembered "Anti-Skid" being said. Dave was able to straighten the airplane out, and got it under control, but the airplane went off the end of the runway and stopped. She attempted to get out of her seat, but Dave went past her to get the cabin entry door open. Once open he advised all occupants to get out of the aircraft. After deplaning Dave told Nick that the thrust reversers weren't working. Nick walked around the airplane and looked at the tires. After doing so he informed Dave that "we had to have brakes and reverse thrust because of the condition of the wheels."

NTSB Follow-Up Questions –

While at Marathon, were you shown how to use the jumpseat restraint. She indicated the flight attendant showed her how to use it, but before takeoff there was no briefing by the flightcrew about it.

Were you wearing a headset – She was not wearing a headset but Dave and Jim were. She indicated that she could see Jim doing a checklist and admired the steps it took.

Did you see the airport – She indicated she saw the airport on approach, and saw the runway when the sharp turn was made. She was asked what direction the turn was made and she indicated to the left. She indicated that while on the runway, the airplane dipped to the left, so much so that she thought they were going to flip.

Did the crew tell her anything during the approach or landing – No they did not tell her anything.

She was asked to describe where the crew was changing switches – She indicated on the center quadrant.

She was asked to describe the approach, whether she saw the airspeed indicator, and whether she could tell where the airplane touchdown point was, and to describe the landing – She felt the approach was steep, and could not tell the touchdown point, and could not tell the actual airspeed, but sensed the speed was fast. She described the touchdown as being different when

she had previously flown commercially, and indicated she felt they were in trouble from the moment of touchdown. She described the touchdown as bouncing back and forth, which started immediately at touchdown. She felt the airplane was out of control, when compared with the commercial landing in West Palm Beach, Florida, or the landing at Marathon, Florida, which she described as smooth. She further described the airplane bouncing and in a left wing down attitude, and she put her head down because she thought they were going to flip. When putting her head down she slightly injured her arm. She reported the airplane then straightened up. She noticed the anti-skid light on, and she noticed the crew move levers. As the airplane was out of control, both crew members were saying words to the effect of "they're not working" both were trying to stop the airplane. Dave said "anti-skid anti-skid" and she believed it was Jim who moved the anti-skid switch. Once he did that, she sensed the movement calmed down, and the airplane went from left to the right. She waited for the airplane to come to a stop.

She was asked if she saw the anti-skid light on during the approach and whether she sensed any deceleration from braking – She indicated it was on either before or after Jim touched the switch, and she felt the airplane was too fast for the runway and she did not report sensing any braking action. She indicated that she looked at the runway, and was surprised that was the runway they would be landing on.

She was asked with respect to braking to compare that with a car she drives, and to try to describe whether she sensed the braking was light, medium or heavy – She indicated to her it felt really hard like in a car, but the brakes did not work.

She was asked to describe her restraint and whether she was moved around in her seat during the landing – She indicated it was a lapbelt and one shoulder harness over each shoulder, and she was moving side to side when the airplane was going left and right. She did not feel herself going forward in her seat during the landing as if the airplane was decelerating.

She was asked to estimate the speed going off the end of the runway – She was not clear on the estimated speed when the airplane went off the end of the runway.

She was asked to describe her injuries – She suffered [redacted] Once they were at the airport terminal, she [redacted] and for the [redacted] dent found herself [redacted] She indicated she is [redacted] and is [redacted]

Transportation Safety Board of Canada (TSB of Canada) Follow-Up Questions -

When the airplane was in cruise flight, was there any conversation from the crew about annunciation lights that were on – To her everything seemed normal. She noticed Jim doing a checklist, and because she was new she was amazed at all Jim needed to check off and do prior to landing.

After deplaning did either pilot say anything to Nick's comment about the brakes – No

Bombardier Follow-Up Questions -

While in the jumpseat, did you hear the crew discuss anything about the airport, approach, weather, or landing – No
While airborne near Marco Island, did you see the airport from a distance – She first saw the airport when she was out of the airplane. She did notice a storm to the right.

When the airplane banked left, did she feel the turn was normal or steep – She felt it was very sharp.

Did you hear any alarms – No. She did see Dave looking to the left three times as if something was bothering him right after the sharp turn, then he straightened the airplane for landing.

Could you see the runway on approach – Yes

During the approach, could you see the length of the runway, and was the approach high and steep or low and shallow – She thought on landing she could not see the full length of the runway.

Did the flightcrew say anything during final approach – No. They only said anything after stopping.

On touchdown, did you feel a bang three times and what was the airplane attitude – The landing was hard, and then she felt a bang. The wheels hit, and then felt left and right dipping. She was not sure if the wings were level.

Was there any turbulence associated with the storm to the right – There was no turbulence.

Describe her position in the airplane on landing at Marathon and describe that landing and braking– She was in a rear facing seat and the landing "felt nice." She reported the braking felt normal.

On landing at Marco Island, was the rocking left to right on the wheels, and how long was the left wing down – Yes, and for a few seconds.

NTSB Follow-Up Questions –

During the approach and landing, was it raining and was the runway wet or dry – It was not raining, and the runway was dry. She reported it was partly sunny. It did begin raining when they were boarding a van to take them to the airport terminal.

Did the crew have any discussion about the approach, or runway – None

To recap the landing, after touchdown the airplane tilted to the left a few seconds, at which time she thought they were going to flip. The airplane was going left and right, and Dave said "anti-skid anti-skid."

She was asked to explain what levers she saw the crew attempting to move, and replied she wasn't sure what the crew used for takeoff when at Marathon. She said the thrust levers are what the crew said were not working once off the plane after the crash.

Bombardier Follow-Up Questions -

Did you see a crew member reach over and try to pull the levers in the center – Yes, that is what they were working on.

Do you recall when the crew were attempting to activate the thrust reversers – She is not sure of the exact sequence and isn't sure where the thrust reversers are.

TSB of Canada Follow-Up Questions –

When the airplane came to rest, how did the pilot get past you – He got past her and said for everybody to get off the airplane.

NTSB Follow-Up Questions –

Please provide your height and weight – 5 feet 6 inches and 115 pounds.

Describe whether you had an issue releasing your restraint and whether she felt she was given enough instruction on how to use it – She got the lapbelt undone, but was not able to release the shoulder harnesses from the lapbelt. As a result she threw the shoulder harnesses off to one side. She did indicate the flight attendant did put it on her to demonstrate, and thought it was thorough.

At her attorney's advice, she described a situation that involves a former pilot for the company, who quit. When she was first hired she shared an office with Skip Lanoff. On February 6, 2015, about 1430, an employee came into her office and asked her to join the 1500 meeting. She did not get Nick's e-mail about the meeting, but joined. It was attended by Steve Chase, Max, Skip, Petar, and herself. Nick was at his house in the Keys and had Skip run the meeting. Because she was new to the company, it was commented how she was getting involved with drama so soon. At the meeting, Skip advised that he wanted to avoid drama. They discussed how the hangar staff and pilots have each other to communicate with, but Steve Chase has no-one. During the week of February 16, 2015, Sach had informed passengers on a flight that they were in trouble. Sach exchanged emails on Friday, February 20, 2015, with Steve Chase and possibly others in regard to the Challenger. The following Monday he quit.

She indicated that after the accident she was taken by ambulance to a hospital where they did a CT scan, and she was released that night. She returned home on Tuesday at 1600. She began

[redacted]on Tuesday March 10, 2015, due to [redacted]She
[redacted]e has 1 e-mail from Dave about his and Sash's concerns about the airplane.

Did you hear a sound from a tire during the landing – She heard lots of sounds and could not distinguish.

TSB of Canada Follow-Up Questions –

Are you aware of Safety Management Systems (SMS) – She is not sure.

Bombardier Follow-Up Questions -

You mentioned that you were terminated. Please describe – On Tuesday she arrived home at 1600. She was terminated the next day at 1630. John indicated he would send me a copy of the termination letter.

Did you injure your [redacted]on touchdown or during the landing roll. Put another way, when did you begin to feel [redacted]– She described the [redacted] and when it began precisely she could not be sure but it became more severe as the days went on. She did report the landing was hard, and again reported her right arm is [redacted]

How did the pilot get past you – There was enough room to get past. The back of it only goes to the middle of the back, and it was left as is.

Mr. Kelly advised he would send an e-mail from Nick regarding employee concerns about the airplane and the company. He also indicated he would send the termination letter.

The digest was e-mailed to both for review on April 16, 2015, at 2310 EDT, and the attorney's office responded with comments on April 29, 2015, at 1536 EDT, that were fully incorporated into the narrative.