

**Interview: Paul McNutt, American Airlines A320 Captain**

**Date: August 25, 2015**

**Location: via telephone**

**Time: 1200 EDT**

Present: David Lawrence - National Transportation Safety Board (NTSB); James Culet - Federal Aviation Administration (FAA); Lori Cline – American Airlines; John Carey – Airline Pilot Association (APA).

Representative: John Sabel (APA)

During the interview, Captain McNutt stated the following:

His name was Paul Edward McNutt, and he was 58 years old. His title was Captain on the A320, and he was based in Phoenix, AZ. His original date of hire was with American West February 18, 1991. He estimated his total flight time at about 17,000 hours, 12,893 hours pilot in command (PIC), and about 11,189 hours on the Airbus, all of which was PIC time. He checked out as captain on the Airbus in 2000. Over the 15 years of flying the Airbus, he would fly the A321 less than 20% of the time. Since the airline had recently acquired more A321's, he estimated currently he operated the A321 about 40-50% of the time.

His background included flying for the military starting in 1981. He spent 10 of those years flying the F111 and T38 instructor. In September of 1990 he joined TWA, and was furloughed after one year. He was hired by America West and then furloughed and recalled to TWA, and subsequently furloughed from TWA again. During his furlough from American West, he was in the training department as a B737 systems instructor.

He held a first class medical certificate with a limitation to have glasses available for near vision. The glasses he had were prescription type glasses, and he had them in his possession on the accident flight, but was not wearing them. He had never been a check airman with the airline, only with the military.

There was no one in the cockpit Jumpseat for the accident flight. They were flying a 3 day trip, and were on the first flight of the second day.

He had not previously flown with the first officer (FO) prior to this trip. He described the FO as very competent, assured, experienced and standardized. They were drug and alcohol screened in Charlotte (CLT) after the flight.

He had never been fired, terminated or asked to resign from an employment, and had never failed a check ride. He had no prior accidents, incidents or violations.

They left ATL late in the afternoon. The weather in Atlanta (ATL) was fine, and the inbound airplane was at the gate when they arrived. They had plenty of prep time, and boarding and taxi out were normal. He expected the usual flow control delays going into CLT, but they did not have one. Departure from ATL was standard, and it was a short flight to CLT, with a cruise altitude of "20 something" thousand feet.

They picked up the ATIS, and it was generic, and the weather forecast for CLT was fine. They also had an alternate airport. As they got closer to CLT, they saw some rain showers in the vicinity of the airport, but nothing that looked threatening. They were vectored for runway 36L into CLT. They went through a brief rain shower when close in on tower frequency, and then it was clear for the rest of the approach. He did not foresee the windshear, and basically it came as a surprise. He thought he went to TOGA (takeoff go-around) even before the windshear alert came on. After selecting TOGA, he rotated to the appropriate guidance, which were the flight director command bars on the PFD (primary flight display) because the windshear system was active. They bounced on the runway and then cleaned-up the airplane normally, and came around and landed on 36C.

There were no deferred maintenance items in the airplane logbook. He was the flying pilot from ATL to CLT. He said they had visual contact with the runway while they were on the ILS for 36L, and he had no concerns about landing on that runway.

The first ATIS from the top of the hour they got for CLT did not have any information regarding low level windshear... They were told to expect runways 36L, 36C and 36R. There was nothing that precluded conducting a visual approach, and there was no mention of windshear on that ATIS. When they checked in with CLT approach, they were at 12,000 feet for the hand off. The FO then checked the new ATIS and read it to him. He said they were close in on final when that occurred, and it was the same weather but included low level windshear alerts.

He said he briefed flaps full since when they were far out, they saw on the radar weather returns, and thought the runway would be wet and decided to land with flaps full. The normal flap setting is for flaps 3 for all the airbus aircraft. The ATIS also showed that they might have a little tailwind for the approach and landing. Their guidance for a contaminated runway, tailwind or steep approach or short runway, 6,000 feet, was to land with flaps full. He did not reference the book because that guidance was pretty well known to everybody. He said on the approach, the radar was hardly painting anything. On the A321 enhanced aircraft, the radar had an auto tilt, and the weather must have been above them since the radar was not painting anything that low to the ground. The rain shower they passed through on the approach was brief, and they did notice a little airspeed fluctuation and change in wind direction as they passed through it. It went from a headwind to a tailwind to light winds at about 1,000 feet.

He did not remember hearing any windshear specific reports from the tower. The first time he remembered anything from tower was for pilots reporting airspeed fluctuations on final for 36L, and thought they might have said 10 to 15 knot fluctuations.

He thought they were following a regional jet, and did not remember that jet reporting anything. He said the FO told him later that the regional jet went around, but he did not recall hearing any report for why the regional jet went a round.

As they approached CLT, he could not see any precipitation to the east side of the airport. He did not recall seeing any yellow or red on the radar.

He said he was very familiar with the QRH (quick reference handbook) severe weather flow chart, and they did not reference it since they did not anticipate encountering any windshear at a time to reference the chart. It only took a few minutes to reference the chart. That was done early when or if you anticipated windshear, and for that approach they did not anticipate windshear. When they got the 2nd ATIS, they were on an extended final, and the ATIS was for low level windshear advisories, not for a windshear alert. They got low level windshear advisories quite often.

Flap full used to be the normal landing flap configuration up until several years ago when the oil prices changed and they went to flap 3. He did not know if it was an economic decision to go to flaps 3.

On the approach, they used managed speed, and he referenced the airspeed to make sure they had the 5 knot buffer. There was little ground speed mini at 500 feet since the winds were light. At 1,000 feet, they had some airspeed fluctuations, and his response to the 1,000 foot call was “unstable airspeed, correcting” since the airspeed was about 10 knots fast, but correcting to the proper speed.

They got the windshear alert very close to the ground below 50 feet. The windshear felt like the airplane quit flying, and shortly after that alert or simultaneous to it, he went to TOGA. He went to TOGA based both on the sinking feeling and the alert. It was so unexpected, and seemed like fractions of a second to realize what was going on.

He followed the glideslope down the whole time, and did not recall what the PAPI indication were on the approach.

He said the engines reacted quickly since they were already spooled up. It was the touchdown that surprised him. There was no ground roll, they just bounced. After the bounce he went to TOGA, and maintained configuration until he knew they were out of the windshear. He knew he was out of the windshear when the alert went away on the PFD and the airplane started accelerating rapidly back to normal performance. He did not recall the pitch attitude when they bounced.

There were no other visual or aural alerts prior to the windshear event. He did not recall what the indicated airspeed was on final. There were no speed additives in the MCDU, and they were in managed speed the entire time. He turned the auto pilot off just prior to the 500 foot call. Auto thrust was on, and the flight directors were on.

He was experienced flying into CLT and runway 36L.

He had never experienced a windhsear similar to this one in training. He received training on windshear on approach, but it usually occurred further out and not right over the runway.

He said he could have chosen one of the other runways, but ATC would not have been happy about it with the traffic there. He never perceived any problem landing on runway 36L. He said he was not bashful to ask for any runway he wanted.

For his normal briefing for the approach, he based his decision on using flaps full based on a wet runway and the chance of a tailwind. He did not pull up the landing assessment report. He had flown the A321 the entire previous day, and had used flaps 3 all day. The turn off at CLT was briefed either W7 or W8, and auto brakes were selected low.

He got no speed aural callouts during the event. He did not recall if he got a Safer report when they got to the gate. He did remember getting the recent guidance outlining the 7 reasons for using flaps 3.

The second ATIS was the first time they received the information regarding the low level windshear advisories.

He sensed that they were getting out of the windshear when the airplane was accelerating rapidly. He had run the QRH flowchart for windshear before, but for this flight he did not perceive any hazardous convective weather in the area.

When asked about how ATC handled the event, he said it would have been nice to know why the jet ahead of them went around, and if it was for wind. It would have also been helpful if approach control had told them about the new ATIS and the major changes in the weather and wind advisories. It may have made a difference depending on the information it contained. He said he did not realize that the airplane ahead of him had gone around.

At the time, he did not perceive any threat on 36L, and had no reason to pass on in favor of another runway. Had he known that other airplane were experiencing windshear, he would have changed to the longer runway.

He said based on what he knows now, he would not have done something different, based on the information he had. He thought that weather information from tower needed to get out to the pilots a little sooner, and they could be more proactive getting that updated weather information to the pilots.

He said, regarding the QRH flow chart, he could not answer yes the first question whether there was hazardous weather at the airport. The rain was small and spotty, and did not seem hazardous to him.

The radar was being run in auto, and did a fairly good job to reduce ground clutter. They had the capability to take it out of auto and run the tilt manual, and had done that in the past. He did not see a need to do that for this approach.

Interview concluded at 1314.

**Interview: Julien Vannucci, American Airlines A320 First Officer (FO)**

**Date: August 25, 2015**

**Location: via telephone**

**Time: 1000 EDT**

Present: David Lawrence - National Transportation Safety Board (NTSB); James Culet - Federal Aviation Administration (FAA); Lori Cline – American Airlines; John Carey – Airline Pilot Association (APA).

Representative: John Sabel (APA)

During the interview, FO Vannucci stated the following:

His name was Julien Jacques Vannucci, and he was 40 years old. His title was First Officer on the Airbus 319/320/321. His date of hire was originally with America West on October 11, 2004, and he was based in Phoenix. He estimated his total flight at 9,500 hours, 4,500 pilot in command (PIC) time, and about 1,200 hours on the Airbus A320 series. He had been on the Airbus for about 2 years, and was previously on the B757. He estimated that he flew the A321 about 15-20% of the time. He held a first class medical certificate with no limitations.

His background included being a French private pilot, and received his ratings during college. He flew cargo for about 7-8 years before being hired by America West. He had never been a check airman.

There was no one in the cockpit jumpseat on the accident flight.

This was the first time he had flown with this particular captain. They were operating a 3 day pairing, and the accident occurred on the first leg of the second day. He said that he and the captain were very complimentary and had a good rapport and relationship throughout the pairing.

He was drug and alcohol tested in Charlotte (CLT) following the event. He had never been fired, terminated or asked to resign from an airline, and had never failed a check ride. He had no prior accidents, incidents or violations.

It was the first flight of the day when they left Atlanta (ATL). It was the same day that the Virginia ATC Center was down, so they were flying a little slower than usual. It was a short flight, and at top of climb they got the first ATIS for CLT, and then started the descent and preparing for the approach. They then got another ATIS, and were being vectored for the 36L at CLT. On vectors, ATC mentioned other aircraft were experiencing airspeed fluctuations of +/- 10 knots on the approach. They were vectored onto the approach, and there were a few rain showers in the area, but nothing that was affecting traffic. As they were vectored, there were rain showers that had moved across the approach path for 36L.

There was an aircraft, probably an RJ, ahead of them. They had the airplane and runway in sight well out from the final approach fix. The aircraft ahead of them went around in a rain shower on the approach path, and the reason was airspeed fluctuation of about +/-10 knots at 500 feet. That same rain shower moved farther from the airport and closer to the approach path toward them, and they experienced similar airspeed fluctuations briefly. All the way to about 40 feet, he was

inside and outside, then their airspeed caught his eye at 40 feet as it went up 1-0 knots and down 10 knots. All of a sudden, the speed dropped 20-30 knots all of a sudden. As he was formulating his mind around the airspeed, they got the windshear aural warning. The captain called for go around TOGA (takeoff go-around), and in the process since they were so close to the ground, they bounced off the runway into the go around phase. They went around and cleaned up the airplane. The captain then checked with the crew in the back and made a PA to the passengers. A couple of O2 masks had fallen down. While they were with approach control, they sent all airplanes to 36C. They then executed a normal landing and taxi to the gate.

He had flown to CLT before. The airplane ahead of them went through the rain shower on the approach. He did not remember if tower told them the reason for their go around, and thought he heard it from the other airplane. For their airspeed fluctuations, he noticed it from their airspeed indicator and the trend arrow that started pointing downwards significantly.

The captain was the pilot flying. The log book had no deferred items.

They could tell that the runway was wet for 36L and 36C was “bone dry” toward the other side of the field. He was not sure the movement of the weather on 36L approach, but it was around the FAF, and a “fairly non-event” rain shower. On the 36C approach, they could see that the other side of the airport was dry.

The second ATIS about 20 after the first one, and it was completely identical except the remarks indicated low level wind shear advisories in effect. They talked about the LLWAS as being the only difference from the previous ATIS. He said they correlated it with what they saw outside as good weather, just rain showers. The low level windshear advisory on the ATIS was an indication of further development as opposed to what was going on at the airport at that time. It was “non-commensurate with what we saw outside.”

The weather radar was on, and they could see just green showers isolated throughout the area, and one on the west side of the field. They were on an enhanced A321, so the radar was on an automatic setting. He did not remember if they adjusted the tilt while on the approach.

As they arrived to CLT from ATL, 36L was the preferred runway given by ATC.

The windshear advisories did not match what they were seeing outside, and there was no thunderstorm activity around the airport. He could not remember if tower was giving out windshear reports. He thought the airplane ahead of them said their go around was due to airspeed fluctuations. He said they also experienced the airspeed fluctuations on approach, but that was the extent of the fluctuations on the approach. The RJ ahead of them was the only one he remembered hearing about the airspeed fluctuations.

He said they executed the approach at flaps full and low autobrakes for the wet runway. The airspeed fluctuations occurred at about 1,000 feet, and the more pressing issue in their mind was the wet runway and not the airspeed fluctuations.

When asked if they ran the OD2 page for hazardous weather from the QRH, he said they did not because it was VMC and they could see the showers and runway from a long ways away. He knew that guidance was in the QRH, but there were no thunderstorms or convective activity in the area, and looked like a nice summer day. They used managed speed, and did not make any manual speed adjustments for the approach. The difference between Vls and approach speed was about 5 knots, and they were both comfortable with that. It did not take him out of his comfort zone.

When asked if the captain was following the glide slope all the way down, he said they were on glide and path at all times. At 1,000 feet, he made a stable call but correcting for speed, and was about the time they went through the rain shower and were about 15 knots fast. He said they were unstable and correcting for speed, about 10-15 knots. They would like to be within the stable box at 1,000 feet, but needed to be stable by 500 feet. When they got to 500 feet, everything was stable on speed and descent rate. He did not remember what the PAPI looked like on the approach. They disconnected the autopilot before 500 feet, and could not tell if the captain had transitioned to the PAPI. The crosshair for the ILS was centered.

When they got the windshear alert, they immediately went into TOGA, and transitioned into the windshear recover procedures. His duties were to call the altitude and trend, and to make sure they were in TOGA. Once they went to TOGA, they bounced. He was expecting the same things they saw in the simulator, but instead after they bounced it became a normal go around. It did not look like a normal windshear recovery, and it surprised him how normal the acceleration was. Once they got back in the air, it seemed like a normal go around clean up.

The auto pilot was off for the landing and the flight directors were on.

He had conducted windshear training in the simulator before, but not this low to the ground. He could not recall what altitude they trained approach windshear recovery. For this flight, when they experienced the speed degradation over the runway, it felt like they fell like a brick. The engines spooled up almost immediately. They were so low to the ground with such little time to do anything; they ended up touching the ground. The performance of the airplane was then like a max performance takeoff, and performed like a light airplane.

They briefed for the approach at the top of descent. They got the initial ATIS weather in the short cruise from ATL, close to top of climb, and then started descending about 20 minutes afterward. When they got the second ATIS, they discussed that the low level windshear advisory was the only change. For the landing, he thought they briefed a turn off of 36L at W7.

He said the normal flap setting for the A321 was flaps 3, but they saw that the runway was wet, and that was the most deciding factor to use flaps full. When they came back around to 36C, they had a dry runway, and they used flaps 3 for the landing.

The previous day, he thought they had flown an A321 the whole day.

He thought they were at about 40 feet when they got the windshear alert, and there was no updraft before they “got slammed”. They were in managed speed, and he did not hear the speed,

speed, speed aural callout. At 500, they were stable, on target, and the sink was about 700-800 feet per minute. He did not get a chance to call sink rate or speed when they hit the windshear. He thought they got a “safer” print out when they got to the gate, and he thought it referenced something about the spoilers limit exceeding.

The last time he was through CQT training was in June, and the windshear training he received was a takeoff windshear.

He did not remember the tower saying anything regarding the weather around the airport area. When they switched to tower, he did not remember tower telling them anything about low level windshear. He thought the tower said something after the previous airplane went around. The reason they did not run the severe weather flow chart was because they had not received and LLWAS from ATC.

There was no virga in the area.

He said tower never said anything about a tailwind. They were conscious of the possibility of a quartering tailwind, which was not unusual for Charlotte since it was a busy airport. His experience was that CLT would wait for the last possible moment to turn an airport around.

Autothrust was engaged for the approach. The A321 airplane they were flying did not have sharklets. The briefing was part of their descent and approach checklist. When they brief for the approach, they would default to company procedures of a flaps 3 landing. With the runway wet, they chose flaps full. They could tell the runway was wet when they briefed flaps full because the radar was on, and it was painting showers moving across the CLT airport as they progressed toward it. Once they got the airport environment in sight, the runway was glistening. They decided to go flaps full in the brief in anticipation of the runway being wet, and confirmed it as they got close and saw the runway.

He said to them, the biggest concern they had was the wet runway. Nothing they saw coming from ATL led them to believe they would experience a windshear. There was no tower cumulous or severe weather. They did have guidance for using flaps full for a wet runway.

When asked if there was anything would have done differently, he said in the same situation he would not do anything differently. The windshear occurred at the worst possible time, with the smallest of margins. When they train in the simulator, there really is not an element of surprise, and it might be beneficial to train windshear unannounced.

When asked if running the severe weather flowchart would have helped, he said after the event he had reviewed it, and they had not seen any severe weather, and nothing pointed towards needing to use the flow chart.

Interview concluded at 1117.