

## NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety Washington, D.C. 20594

September 6, 2019

**Attachment 1 – Flight Crew Interview Summaries and Statements** 

## OPERATIONAL FACTORS/HUMAN PERFORMANCE

**DCA19MA143** 

Interviewee: Gabriel Cosentino, Captain and Check Airman, 737-800, Miami Air

International Date: May 5, 2019

Location: Naval Air Station Jacksonville, Hanger 117 Room 207, Jacksonville, FL

**Time: 1655 EDT** 

Present: Shawn Etcher, Katherine Wilson, Warren Abrams – NTSB, David Thompson – Federal Aviation Administration (FAA), Rich Lee – Boeing, Paul McDonagh – International Brotherhood of Teamsters (IBT), Steven Joffrion – Miami Air

Representative: declined

During the interview, Captain Cosentino stated the following:

He was a captain and check airman at Miami Air. He was 55 years old. His date of hire with Miami Air was March 2008. He held an ATP<sup>1</sup> certificate and B-727<sup>2</sup>, B-737<sup>3</sup>, SF-340<sup>4</sup>, and SA-227<sup>5</sup> type ratings. He had about 7,500 hours total time, 2,000 of which was as SIC in the B-737 and 1,000 as PIC in the B-737.

He started flying at 16 years old overseas. He flew in piston aircraft then flew multiengine aircraft. He came to the United States and had to start all over again with his certificates. He flew turboprops and jets. He worked for AmeriJet International, IBC Airways and then Miami Air. Prior to his current position at Miami Air, he worked as a SIC, ground instructor, flight instructor, simulator instructor, line check airman and as of 2 weeks before the interview, an APD<sup>6</sup>.

After landing in Guantanamo prior to the accident flight, the flight attendants did the cleaning of the aircraft, the mechanic did the fueling and the crew ran the weight and balance; it was a typical day. They departed Guantanamo and got their clearance with Miami Center and returned to NIP<sup>7</sup>. At the top of decent, they were deviating around weather and got the weather for the approach. He checked the arrival which had the Jacksonville weather and also the approach plate. NIP did not have an ATIS<sup>8</sup> frequency they could use, so he asked the approach controller for the weather there. He set the RNAV<sup>9</sup> to runway 10 but when he got the weather the controller instructed him to take runway 28 RNAV. The controller then reported a thunderstorm on top of the airport and that

<sup>&</sup>lt;sup>1</sup> Airline Transport Pilot

<sup>&</sup>lt;sup>2</sup> The Boeing Company B-727, B727-100, B727-200. Source FAA Order 8900.1, Volume 5, Chapter 2, Section 19 Figure 5-88 dated July 15, 2019.

<sup>&</sup>lt;sup>3</sup> The Boeing Company B-737-100, B-737-200, B737-300, B737-400, B-737-500, B-737-600, B-737-700C, B-737-800, B-737-900ER, B-737-8, B-737-9. Source FAA Order 8900.1, Volume 5, Chapter 2, Section 19 Figure 5-88 dated July 15, 2019.

<sup>&</sup>lt;sup>4</sup> Saab AB, Saab Aeronautics 340A (SAAB/SF340A), SAAB 340B. Source FAA Order 8900.1, Volume 5, Chapter 2, Section 19 Figure 5-88 dated July 15, 2019.

<sup>&</sup>lt;sup>5</sup> M7 Aerospace LLC SA226-AT, SA226-T(B), SA226-TC, SA227-AT, SA227-CC, SA226-PC, SA227-TT, SA227-AC, SA227-BC, SA227-DC. Source FAA Order 8900.1, Volume 5, Chapter 2, Section 19 Figure 5-88 dated July 15, 2019.

<sup>&</sup>lt;sup>6</sup> Aircrew Program Designee

<sup>&</sup>lt;sup>7</sup> Jacksonville Naval Air Station – Towers Field

<sup>&</sup>lt;sup>8</sup> Automated Terminal Information Service

<sup>&</sup>lt;sup>9</sup> Area Navigation

runway 10 looked better. He questioned the winds at the airport and was told the winds were 340 at 4. It was in the limitations of the airplane, so he accepted the runway and set up the approach. He accepted the headings to join the final course for runway 10. He saw runway lights. He could not remember when they switched him to tower. He contacted the final controller and they said they would give them PAR<sup>10</sup> guidance and to contact tower on landing; he assumed someone was in training. He was given guidance and they flew a stabilized approach. They never lost contact with the runway lights. On short final it started raining very hard. He turned on the wipers. He clarified that he was the pilot flying. He looked up at the wiper switch and when he looked back at the runway, he was a bit to the right of the lights. He was still in a safe position for landing and corrected. The flight touched down and he believed it was a soft landing, deployed the thrust reverser, brakes and nothing happened. He stepped on the brakes after that to the point that his back hurt. He had a good reverser but did not feel there was any deceleration whatsoever. He said they were "going over" to the First Officer (FO) and mechanic and the rest was history.

The controller gave guidance of he was "a little low, little right, little left," and he had the secondary guidance in the aircraft. He was never cleared for the PAR, only the RNAV so he confirmed with the VDI<sup>11</sup> the deviation. Amount of deviation was never to the point of an unstabilized approach. Everything was what he expected for navigating the approach. It all looked like it should and was confirmed by the controller, it did not change the workload. He corrected back to the centerline. The FO called for the deviation as required. He did not give the FO the standard response of "correcting" but instead said something like "I got it."

He thought they touched down not far from the 1,000 feet displaced threshold. The airplane was a bit to the right of the centerline on touchdown and he was able to correct to centerline. Autobrakes were set to 2 which was the correct setting given the information they were given. As far as he knew, the runway was not contaminated. After touchdown, he knew pretty quickly that they were not decelerating. He was the pilot flying. He pushed the brakes, and nothing happened. He looked at the autobrake disarm light to make sure it was illuminated; it was illuminated meaning he had manual braking. He did not ask the FO to get on the brakes because he was doing manual braking himself. He did not recall if the FO made the required callouts. There were no other lights on the landing roll.

The number 1 thrust reverser was MEL<sup>12</sup>'d.

At the very beginning of the landing roll the airplane did slide to the right. He never let go of the brakes but was able to get it back to the center, which he thought was with the rudder. He remembered never letting go of the brakes. It happened right after touchdown, but he seemed to have rudder effectiveness.

ATC made a statement about the arresting cable, but it did not change his approach at all.

He had the onboard radar set to weather/turbulence and manual. He was doing the corrections. It was working great. He was switching between 60, 40- and 20-miles range. The thunderstorm

<sup>&</sup>lt;sup>10</sup> Precision Approach Radar

<sup>&</sup>lt;sup>11</sup> Vertical Deviation Indicator

<sup>&</sup>lt;sup>12</sup> Minimum Equipment List

showed it was a little bit to the right of the runway 10; it was touching the airport but a little bit off the airport.

He would have to look at the paperwork to recall the forecasted weather but remembered he viewed the 0400Z weather.

He had flown into NIP recently and landed on runway 28.

The trip pairing schedule was normal. There were no changes in their schedule that day.

When he got to the airplane, the reverser light was illuminated, and it was written up in the logbook. He had a mechanic with him and told him to troubleshoot it. The crew did their work like the preflight and other required items. The mechanic said he could not reset the light, so they decided to MEL the reverser. The mechanic took care of the MEL and operational items. He ran the performance with the MEL, weight and balance with the MEL, started the engines, taxied out and then they lost the No. 2 duct pressure. They got clearance for the takeoff, but he declined the takeoff clearance to troubleshoot because the No. 1 duct pressure went to zero. They taxied back but could not fix it so they MEL'd the bleeds. They used the APU<sup>13</sup> for engine start and used one pack which restricted them to fly at 17,000 feet for the two flights on the day of the accident. They ran a new flight plan and amended the release and added fuel.

When the maintenance issues occurred, the crew immediately called dispatch and the mechanic talked to maintenance control.

The mechanic was in the cockpit jumpseat, so he was blocking the exit after the accident. He told the mechanic to open the cockpit door and move the jumpseat and exit the cockpit. He also told the FO to start helping with the evacuation. He set the airplane for an evacuation by himself. When secure, he exited the cockpit and helped the flight attendants with the evacuation. He clarified that he did not run the evacuation checklist but was familiar because he taught it. There was a fire bell sounding in the cockpit after the accident, but no lights were illuminated which was confusing to him, but he assumed there was a fire, raised the fire handles, rotated all three fire handles, and deployed the fire bottles.

He could hear the flight attendant make an announcement to evacuate. He and the flight attendant opened the 1R door and when he looked out, he could see that the tail of that airplane was sitting lower than the nose. He screamed to the flight attendants in the rear of the airplane not to open the aft exits and a flight attendant at the front relayed the message with the bullhorn.

He did not know the airplane was in the water until he looked out the 1R door.

He could not recall if the 1L door was open when he exited the cockpit. The cabin was very calm and there was no screaming. There was no sense of urgency and passengers were gathering their belongings. He intervened and told passengers to leave their bags and exit the airplane. Everyone was amazingly quiet and very organized, it was "pretty calm"; some put their bags back.

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<sup>&</sup>lt;sup>13</sup> Auxiliary Power Unit

The flight attendants did an excellent job. Passengers were exiting without a flotation device and the flight attendants instructed them to grab them but not to inflate them. He attempted to inflate a life raft and the flight attendants inflated the others.

Before evacuating, he walked the airplane twice. He did it once, walking from the cockpit to the galley and back using a flashlight. He checked the two aft bathrooms as well as every seat and under each seat moving back towards the cockpit. He was alone in the airplane. He was about to exit the airplane but had a feeling he should check the airplane from front to back again. A fire rescue person told him he had to leave but he said no so the man walked with him while he checked the plane again. There was only water in the aft galley and the last two rows of passenger seats; the depth was not that deep. The flight attendants followed his command and did not open the aft doors.

He first exited the airplane through the 1L door to help inflate the life raft. He returned to the airplane then exited the left overwing exit to make sure no one was in the water. He again returned to the airplane and then exited the right overwing exit and boarded a boat.

When landing in NIP, US Customs would come to the airplane to process those on board. If they had to divert to their alternate, that airport would have those services they required. He did not recall what the alternate was the night of the accident.

Had the accident not occurred, the airplane would have been ferried back to Miami using another crew. He and the first officer would have deadheaded back to Miami on that flight. The crew that would be taking the airplane had arrived with the airplane earlier that day and to satisfy their duty day, the company kept them in the area in case they were needed to fly the airplane because of the earlier flight delay for maintenance.

If a flight had to be diverted, he would just call the company. It was not difficult, and he had diverted to an alternate airport before. There were no issues from the company and commented that Miami Air was the best company for supporting crews.

He had no concerns about landing on runway 10. When they said it was better, he said he would take it. He never lost sight of the runway on the approach.

The FO flew the takeoff out of NIP until the top of descent into Guantanamo. It was a requirement by the military that the PIC do the takeoffs and landing at that airport.

Because of the weather, he did not give the FO control of the airplane after departing Guantanamo. The FO was in his OE<sup>14</sup> phase of training and they have a priority in when they conduct OE. The forecasted weather was for showers in the vicinity, so he checked the radar on his phone before takeoff and saw them coming off the coast of Florida. The FO was brand new and this pairing was the first time they had flown together. The FO was getting used to the airplane; he was not bad.

There were no additional maintenance write ups that he recalled on the airplane besides what had already been discussed.

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<sup>&</sup>lt;sup>14</sup> Operational Experience

They completed the descent approach and landing checklists. He did not recall when he turned the autopilot off but said when it was legal. They did not fly mixed mode so when the autopilot came off, the autothrottles came off too.

He thought the speeds on the approach were Vref +8 and then +10 and he corrected to +5. He did not recall any other speeds. They used flaps 30 for landing and would use flaps 40 for autolands or if the runway was less than 7,000 feet long.

He did not recall if the ground spoilers were used. There would be a callout when they deploy but did not recall if the FO made the callout.

He did not recall how many times he had flown into NIP but thought 5-10 times.

The crew was tested for drugs and alcohol after the accident by both DOD<sup>15</sup> and DOT<sup>16</sup>.

He was asked to provide a written statement after the accident but had not yet completed it. He had woken up about 0500 on the day of the accident and did not sleep until about 0730 the next day.

The weather package he received for a flight included all of the information he needed but he also liked to check the weather on his phone. The weather package had both graphics and textual information. The iPads on the flight deck had a Jeppesen app for weather but he did not use it.

There was no concern about the weather, as the flight route took them west of it.

He had about 500 hours as a check airman flying with both captains and first officers.

The FO had satisfied the requirements and he flew at the level of his experience in terms of the number of hours he had on the airplane. When compared with other FOs with the same number of hours, the accident FO was similar.

On the flight to Guantanamo, they discussed fuel checks and that he would be flying into Guantanamo but that he wanted the FO to set up the approach for him. They also discussed the approach. Flying into NIP, he could not remember what they discussed about the approach. They flew the POGIE ONE arrival. He did not see an ATIS frequency for NIP on the approach chart.

When getting ATIS, the crew would dial the frequency and listen. One pilot would listen at a time. He always listened to the ATIS himself and then would transfer the radio to the other pilot.

The crew set up three approaches – runway 10, then runway 28, then runway 10. They briefed the approach for runway 10 and 28. When he was given runway 10 the second time, he thought they went through all the items. He could not recall who set up the approach to runway 28, but he set up the approaches to 10. Items included transferring controls, opening up the approach plate in the

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<sup>&</sup>lt;sup>15</sup> Department of Defense

<sup>&</sup>lt;sup>16</sup> Department of Transportation

Jeppesen app, set minimums, inbound course, autobrakes, Vref, waypoints and altitudes, and then briefed the approach.

Unless there was a change of airport, braking action or a list of other things, they would use the dispatch performance for landing.

Wet runway numbers he could not recall if that was based on grooved runway surface or non-grooved, he would have to look.

There was a NOTAM<sup>17</sup> that there was a displaced threshold at 1000 feet, in the Boeing on board performance tool; that meant he could not use that 1000 feet of runway.

They were given the PAR approach and understood it as a training event for the controller. They gave him the instructions. He did not recall if he was cleared for the PAR or RNAV.

Pilots were taught how to use the gain and tilt on the weather radar. There was a different tilt angle to use for takeoff, climb and approach. In a climb, you would not want it tilted down because you want it on a view of where you were going. On approach, he would tell pilots that they were seeing the ground and where to tilt it to avoid that.

He was not instructing the FO during the approach because they were below 10,000 feet. He has had his hand on the radar a couple of times. There was not a solid line of weather; he could see the city in the distance. They were deviating all over and he took the precaution of telling the flight attendants to set up and take their seats early. It turned out not to be as bad as he expected.

Shadowing was clear to see if you knew it was going on. There was no shadowing that night.

It never stood out in his mind that he had the wrong approach. From the time he intercepted final, he could see the runway lights all the way down.

He did not recall seeing lightning on the approach. He might not recall it because he did not see anything on top of the runway.

They could accept PAR approaches.

The airplane had autocallouts for 50, 40, 30, 20, and 10 feet, also 100 above minimums. He thought he heard the callouts on the flight. He was looking at the lights on the whole approach.

VNAV<sup>18</sup> mode did not have control of speed because it was coming from the FMC<sup>19</sup>. The bug showed him his approach speed meaning the add on plus what he put in his Vref. He thought he was doing "a lot" of throttle adjustments once he was below 200 feet

<sup>18</sup> Vertical Navigation

<sup>&</sup>lt;sup>17</sup> Notice to Airmen

<sup>&</sup>lt;sup>19</sup> Flight Management Computer

He saw he was a few knots more than Vref and thought the FO called it; he did not remember what he responded with. He knew he was fast because of the bug; he was flying manually at the time. He did not remember a lot of throttle adjustment until the end of the approach, below 200 feet agl<sup>20</sup>. The airplane had windshear detection and he did not hear it sound.

The igniters were set to continuous for takeoff and landing per their procedure and would also be in that setting when using anti ice, in heavy rain and for unusual departures. It was on in this case because they were landing; there was nothing unusual about using it that night.

He never thought to go-around on the approach. At the very last portion, the rain surprised him. It was not reported to him at all. He deemed that landing was the safest course of action because he was stable and could see the centerline, was not landing long, and was on speed. All he knew was that the runway would be wet. He did not know if it had just started raining or what. Based on the reports he had, there was no contamination. He was not scared by the rain, but more amazed.

There were certain runways he knew because of the surface that it was wet and others not.

He heard the autocallouts for 50 feet and below, and when he heard the 20-foot callout he thought it was going to be a good landing.

There were 2 GPWS<sup>21</sup> "don't sink" alerts. He thought he aimed over the 1000 feet mark. He corrected for the alerts; it was a nonevent. It was his fear of overflying the runway. The alerts occurred below 200 feet, prior to the 50-foot callout. He did not go under until under 200 RA<sup>22</sup>. In response to "don't sink" he would say "correcting".

It was not a typical night. He just did not want to land long. It was not an alarming thing where he dove, just a last-minute correction way above the ground and he was visual.

His feet were on the pedals and the autobrakes disengaged. He applied the pedals and had already deployed the reverser. He started applying pressure and the airplane was not decelerating. He looked at the disarm light and saw it was not decelerating and continued to apply the brakes with all of his strength.

He had deployed the No. 2 reverser and had a mark on his finger to show how hard he pulled; he did not stow the reverser until after they stopped. The airplane did slide a little to the right. He never let go of the brakes and made a little correction with rudder to put it back on centerline. Asked if the airplane slid to the right upon landing at Guantanamo, he said Guantanamo had a long runway and he thought he might not have been as aggressive with the reverser.

At one point he repositioned his hand to make sure he was in full reverse but did not stow the reverser.

<sup>&</sup>lt;sup>20</sup> above ground level

<sup>&</sup>lt;sup>21</sup> Ground Proximity Warning System

<sup>&</sup>lt;sup>22</sup> Radio/Radar Altimeter

He could not recall if he had experienced hydroplaning in the B-737. They talked about it in ground school.

Regarding the last point at which a pilot could make a go-around, he said anytime a pilot questioned the airplane, data or the approach, it was best to put distance between you and the ground. He taught that to captains. A pilot could go-around after landing as long as the reversers were not deployed.

He confirmed that they received a fire bell after the airplane stopped. The immediate items were to identify the source, No. 1, No. 2 or APU, and pull the handles to stop. He remembered pulling all 3 handles and discharging the bottles; he did not know if it was a fire but knew they were evacuating.

He had a first-class FAA medical certificate that was expiring this month; there were no restrictions.

He had the onboard weather radar set to weather/turbulence mode.

He saw that the airplane recently received two new engines and did not do anything differently on the flight because of it that he could recall.

He did not know the flight attendants said before he left the cockpit, but everyone was standing when he left the cockpit.

Life rafts were located in the overhead bins. He got one of them down and he assumed the flight attendants got the others down.

He did not pull any circuit breakers after the accident.

The flight from Guantanamo to NIP was about 2 and a half hours.

When not doing an OE flight, the pilot flying would be the one to normally set up the approach.

Miami Air's policy was to land with the autobrakes on. Depending on the length of the runway and contamination, they would choose setting 2 or 3.

The weather conditions did not require the crew to run enroute performance calculations.

He did not get the winds when he was cleared to land. He could not recall the exact words told to him, but he was to contact tower on rollout.

The landing was "pretty smooth" as he recalled.

He looked at the disarm light because he did not feel the airplane decelerating. He did not feel anything like the antiskid activation.

The weather was on the right side of the runway.

On every approach he made and taught, he always said a good pilot was always thinking about a missed approach because "you never know." The missed approach was talked about in the approach briefing and how to fly it; the actual procedure in the plate plus the missed approach procedure like throttles, gear, etc. Once on final, he could see the runway. They did not encounter rain until short final. He saw the runway lights as soon as they turned to final. He did not think about going around when they got the GPWS alert. He did not recall if it was raining when he received the alert.

He did not remember the weather report received from the approach control. There was nothing on runway conditions or braking action.

He lived a simple life. He did not recall his sleep on April 30, 2019 but was on 30 hours rest through May 1. There was nothing unusual and he did not recall what he did. On May 1, he was in bed about 2130 and woke up on May 2 about 0500-0530. He took a commercial flight to Jacksonville and had 18 hours of rest. He discussed training with the first officer from about 1630 until 1730, walked to get dinner, watched TV and talked with his wife. He was asleep "pretty early", about 2100-2130. On May 3, he woke up about 0500 without his watch. The showtime was 0730. He had coffee and read the newspaper; he did not eat breakfast. He had no problems falling asleep or staying asleep. He had never seen a doctor for or been diagnosed with a sleep disorder.

He had not been involved in any previous accidents or incidents, never been disciplined for his performance or received any commendations.

In the 12 months before the accident, he had not had any changes in his health, finances or personal life, either good or bad, that would have affected his performance on the day of the accident.

He was very healthy and did not have problems with his vision or hearing. He wore readers sometimes but there were not required per his medical. He did not take any prescription medication or illicit drugs, nor drink alcohol; he did smoke. In the 72 hours before the accident, he did not take any medications, prescription or nonprescription, that would have affected his performance.

The workload on the accident flight was normal for an OE flight. He had the responsibility for the safety of the flight and also OE, but it was nothing that he could not handle. The weather did not affect his workload; it was like any other night with weather. They were deviating but never encountered weather; he could see the city.

There were no problems with the aircraft or ability to see outside.

He loved working for Miami Air. He was very loyal to them. They were safe and they encouraged that. They had a culture of safety and refused to surrender to that. There were never any pressures to push a pilot to takeoff or continue a flight, including the accident flight. There was no phone call from the company if a pilot did a go-around. There were no external pressures in his personal life that would have pushed him to continue the flight.

The FO was "okay, a good kid" and was alert during the flight. He had never flown with the FO before. The FO's interaction with the flight attendants was "very good." He did not think the FO had much contact with the passengers. The FO was very polite.

His personal opinion was that he would switch autobrakes from 2 to 3 when landing on a short runway, less than 7000 feet.

He never talked to the tower after landing at NIP.

He did OE so he most likely did a go-around last month.

He clarified that they were on the taxiway when they received the low/no duct pressure before takeoff.

CRM<sup>23</sup> with the FO was great.

Thinking about the accident flight, he would not do anything differently if he had the same facts that he did that day.

## **Interview concluded at 1915 EDT**

Interviewee: First Officer Claudio Marcelo Jose La Franca

Date: May 5, 2019

**Location: NAS conference room 207** 

**Time: 1500 EDT** 

Present: Shawn Etcher, Katherine Wilson, Warren Abrams – NTSB; David Thompson – FAA; Steve Joffrion – Miami Air; Paul McDonagh – IBT; Rich Lee – Boeing;

First Officer La Franca was represented by Gary L., Halbert – Attorney for Holland & Knight

During the interview First Officer La Franca stated the following:

He was 47 years old and was a first officer at Miami Air. He was hired on October 13, 2018 and began training on January 3, 2019. His duties included the safety of the passengers and airplane and to assist the captain and the crew.

He had an ATP certificate for Airplane Multiengine Land and had a type rating in the Boeing 737. He also had a commercial pilot certificate for airplane single-engine land, certificated flight instructor for airplane single and multiengine and instrument.

He had approximately 7,500 hours of total flight experience, of those hours about 18 hours were on the Boeing 737. He had never been a captain. He had a First Class medical, which had been issued on January 30, 2019.

<sup>&</sup>lt;sup>23</sup> Crew Resource Management

He began learning to fly at a flight school in Argentina where he earned his private pilot certificate. He then moved to the U.S. and attended a flight school located at the Opa-Locka Airport, where he obtained all of his pilot ratings, including his flight instructor ratings. He then was a freelance instructor at the Opa-Locka Airport. He enjoyed being a flight instructor; however, he always wanted to fly for the airlines. Miami Air gave him the opportunity to do that and it was next to home.

When asked who his immediate supervisor at Miami Air was, he stated that it was the chief pilot. He also stated that he felt it was a "good airline" and that he liked the operations they had. He had just started so could not say whether they had an adequate number of pilots.

When asked who he would report a concern that he observed with the operations, he stated he would report it to the safety department. Miami Air had both ASAP<sup>24</sup> and FOQA<sup>25</sup>.

When asked to describe the event flight he stated that at the top of descent everything was "normal," and enroute was normal. They had to do a few deviations around the weather. They began preparing for the approach and they selected runway 10 in the FMC. As they got closer to the airport air traffic control informed them to expect runway 28 as there were some build-ups near the airport. Subsequently as they got closer to the airport, ATC changed them to runway 10. The captain prepared the approach and they received vectors from ATC for the inbound course. Approximately 3 to 4 miles outside of the final approach fix, they visually acquired the runway lights. They accomplished the normal procedures and checklist. They started the approach and the descent and airspeed were stable. He estimated about a mile from the runway they encountered a rain shower and the airplane deviated a little to the right of the centerline. The captain was able to correct the flight path back to the centerline as it required a few degrees of heading change. He further clarified that while on the approach he visually acquired the green runway threshold lights. He did the normal callouts required of him on the approach. After landing he recalled last seeing the airspeed at 100 knots and they were getting close to the end of the runway and not slowing.

When asked to clarify about their enroute deviations he stated that there were thunderstorms developing and he estimated they deviated about 20 degrees. They were using the onboard weather radar. When asked if they deviated based on weather radar indications or visually acquired the cells and deviated around them, he stated that he had visually acquired the build-ups.

When asked how the weather radar was to be operated, he stated that you first have to turn it on and then press the weather button on the glareshield panel. They were able to adjust the radar tilt and select the distance to see what a better direction for deviation was. The captain was adjusting the radar. He did not recall how the radar was set that night.

When asked if this was an OE trip, he stated that it was and that it was his second trip since training.

He did ground training, then an oral test with a check airman and someone from the FAA. He then went to a fixed-based simulator, then to a full motion simulator before the next test. He felt the training was adequate at Miami Air.

<sup>25</sup> Flight Operations Quality Assurance

<sup>&</sup>lt;sup>24</sup> Aviation Safety Action Program

When asked to describe what a normal checklist they would do in preparing for an approach, he stated that they would perform the descent checklist and approach checklist. The captain briefed the RNAV approach to runway 10. There was no discussion about the weather.

When asked how the approach briefing was conducted, he stated that the approach briefing was started with the approach plate on their EFBs and they would brief the inbound course, the altitudes for the final approach course, the decision height, the missed approach and the altitude on the missed approach.

When asked how they obtained their weather, he stated that they asked ATC who gave them the weather; he then restated he could not remember how they obtained the weather, whether from ATC or ATIS.

The captain did the performance calculations and told him what he [the captain] was doing. He did not recall the approach or Vref speeds.

When asked when they obtained the airport or runway visual, he estimated that they were 3 or 4 miles outside of the final approach fix on the approach. He saw the approach lights and classified them as being "bright," easy to see, but not so bright that it hurt his eyes. About a mile from the airport they encountered some rain all the way until they landed. When asked if they reconfigured the airplane because of the rain, he stated that they did not change any configuration below 1,000 feet per company guidance.

When asked if he could recall what the autobrake setting was, he stated that it was set to 2 and they did not discuss any change needed to the autobrake setting.

When asked to clarify what he meant about the airplane deviating to the right of centerline he stated that the deviation was within the runway edge; pushed very slightly to the right, not much. Once the deviation began the captain immediately corrected so he did not make any callouts.

When asked if there are any mandatory callouts he would have to make as the pilot monitor, he stated that he had to call out speed deviation, left or right deviations, and others. He further stated that he did not have to make any callouts on the accident flight. He clarified that if the landing was not "stable" he was required to call for a go-around. He further stated that a stable approach was to maintain speed and descent path.

Asked if either crew used their windshield wipers, he stated that the captain turned his on, but he could see without the wipers. It was just rain, no lightning. As Pilot Monitoring, he had to make sure the airplane was on the glidepath and would land within the touchdown zone.

When asked if he could recall if there was any information given to them about an arresting cable being up at the airport, he stated that he could not remember.

When asked what his required callout for a normal landing would be, once the airplane was on the ground, he stated that his first callout would be that the speed brakes were up, and then when the

airplane decelerated to 80 knots. The speed brakes were automatic; he made the callout and they came up automatically as far as he could remember.

When asked if they had any deferrals on the airplane, he stated that they had only one thrust reverser available to them and that was the one on the right engine, the left engine's thrust reverser was deferred. The captain had prepared all the landing performance, so he was not certain if one thrust reverser had a performance penalty. The captain did use the operative thrust reverser and corrected the airplane back to the centerline when it deviated. He did not make an 80-knot callout because he recognized the airplane was not slowing down and he never saw it get below 80 knots. The deceleration was a "very small rate of deceleration." At the point they were departing the runway the captain said something like "we're going in," but he was not certain what the captain had stated. He was looking outside and did not know if the captain adjusted the thrust reverser.

When asked if he ever thought about making a go-around call, he stated that they were on the ground and he did not think they could do a go-around. The approach was stable, so no go-around call was made. He saw the end of the runway coming and that's when he figured out that they were not able to make the stop. They went into the grass, felt some bumps, and heard sounds of the airplane hitting the wall. He grabbed the dashboard with both hands.

He stated that the evacuation was called for; however, the mechanic was in the jumpseat. The mechanic was the first to open the cockpit door and then the mechanic and himself exited the cockpit. The evacuation had already been started by the flight attendants. The emergency exit lights were the only lights that were illuminated as the airplane was dark.

During the evacuation his duty was to make sure all the passengers got out of the airplane, open doors and activate slides. The flight attendants were opening the doors for the slides. Passengers were evacuating by the emergency overwing exits and were standing on the wings. He remained on the airplane until everyone had evacuated at which time a boat had come to get them off the airplane. He did not remember how he evacuated.

When asked if after the airplane came to rest if he knew it was in the water, he stated that he did not know until he exited the cockpit.

He could not recall the rain intensity during landing, but it was not heavy during the evacuation.

He knew something was wrong when he saw the speed was about 100 knots. He did not notice any changes during landing in regard to their position in reference to the centerline. He did not notice the airplane starting to slide. During touchdown the airplane was on the centerline. However, he could not recall how far down the runway the airplane had touched down.

When asked if there was a runway remaining callout for the pilot monitoring, he stated that he was not sure. He did not make those callouts.

When asked if he flew the previous leg, he stated that he did the takeoff on the previous leg and the rest of the leg was flown by the captain, as Guantanamo Bay was a captain only landing and takeoff airport.

When asked once they were to land at Navy Jacksonville were they done or did they have another leg, he stated that they were to continue to Norfolk; however, the schedule changed and there was another crew that was to take the airplane to Miami and that they were going to have to deadhead to Miami on the airplane.

When asked if he knew the reason why the airplane was going to Miami, he stated that they had a problem with the air conditioning packs. Their schedule was to continue to Norfolk however, since they were delayed the schedule had been changed. The initial delay with the packs occurred before the flight from NIP to Guantanamo, which delayed the flight back to NIP; he did not recall how long the initial delay was.

He could not recall what was being displayed on the weather radar on the approach.

When asked if he had flown this trip previously, he stated that it was his first time flying this trip and only his 2<sup>nd</sup> trip on OE. He thought he was the pilot flying on the previous trip for 3 legs.

On his first OE trip there was no special training requirement for any of the airports on that trip; there was no special airports training for this trip either.

When asked if he or the captain discussed that the runway was not grooved, he stated that there was no discussion that he recalled.

When asked if he could recall any lights illuminating in the cockpit after touchdown, he stated that there were no lights that illuminated.

When asked if there were any other items that had been deferred on the airplane, he stated that there were one or two packs that were inoperative and that was all he could remember that was deferred. There were no other issues, warnings or alerts on the airplane.

He had reviewed the dispatch paperwork, but he could not recall what the weather was on that paperwork.

After the accident, he was screened for drugs and alcohol as part of the normal procedures after an event. They cleared customs in the hangar after the accident occurred.

When asked how they knew about the buildups near the airport, he stated ATC told them about it. That was all ATC told them.

During the evacuation, he and the captain were the last ones to exit the airplane. He could not recall if the captain walked to the back of the airplane to make sure everyone got off. However, once on shore the captain and flight attendants counted all of the passengers.

When asked what his normal sleep schedule, he stated that he went to bed around 2230 on April 30<sup>th</sup> when he had his days off and woke up around 0630. During the 3 days previous to the accident,

he did not have any issues with staying asleep; he further described his sleep pattern as routine for him. There was nothing unusual that would have caused him to not follow his routine.

The day prior to the flight, May 2, he deadheaded up to Jacksonville via commercial airlines and they stayed at the crew hotel and got rest. He went to bed around 2230 on May 2 and estimated he woke up on May 3 around 0630. Their report time was in the morning. He thought they were scheduled to report around 0900. He set an alarm but normally woke up before his alarm sounded; he felt rested for the flight. He had breakfast at the hotel about 30 minutes before report time and then ate snacks during the day and a sandwich. He did drink coffee and other caffeine beverages.

When asked if there was any pressure to continue a landing, he stated there was no pressure to. They always have an alternate, however, he could not recall what the alternate was.

He did not have a sleep disorder, and no issues with his vision or hearing. He did not take any medication. He did smoke and thought he smoked a "normal" amount for him that day. He did not use illicit drugs.

When asked if he had any previous accidents, he stated that he had, and the first one was while doing training in a twin-engine airplane, the nose gear collapsed due to a mechanical issue. The other accident he had was when he was flying in a Cessna 172.

He had no changes in his health or personal life within the past 12 months that would have affected his performance. He did have some financial issues within the past 12 months; however he did not feel like that issue distracted him from his duties. He did not drink alcohol and he had not taken any medication, prescription or nonprescription, within the 72 hours preceding the accident. His health was "good, standard."

He felt his workload was normal for the accident flight, but he could not recall if when they encountered the rain his workload changed.

There was nothing that hindered his view outside the cockpit.

He did not feel any pressures by the company to continue a flight. He felt that his mood was "good", and he thought the captain was "good" also. The captain was a "good captain," who had conducted his ground training. They had not previously flown together.

He had no conflicts with the captain. He did not observe any conflicts between the captain and the Flight Attendants or passengers.

When asked if he could recall his training on the weather radar and human factors, he stated he could not recall and that he did not have any training on human factors. They did CRM training in the simulator.

He was from Argentina, which spoke the Spanish language but during the flight he and the captain spoke in English.

When asked if he had ever run the evacuation checklist prior to the accident, he stated that during training he had to run the evacuation checklist, and part of that was to pull the fire handles in the simulator.

He further clarified that the mechanic opened the cockpit door first. Once he left the airplane, he did not reenter it. He was not sure if the captain ran the evacuation checklist or not, but when he left the cockpit, he thought the captain was running the evacuation checklist.

When asked if the captain used full thrust reverse, he stated that he thought that the captain was in full reverse, but he was not sure. He recalled hearing the sound of thrust reverse but could not be confident that he looked at it.

He could not recall what door he went out of during the evacuation nor if there was a specific door he was to leave from.

When asked if he considered a call for a go-around, he stated that they always keep in mind the procedures for a go-around, but in this case, he did not find anything that would require him to or make him want to do the go-around call.

When asked to clarify if they received the ATIS, he stated that he could not recall if they got it or not.

When asked if he could remember if they were on the centerline, he stated that as far as he could recall they were on the centerline of the runway but he could not recall much other detail and could not recall what the captain stated when they were about to depart the runway surface.

He felt that crew rest was not a factor. He felt the support they received from the company going into the airport was appropriate.

He could not recall if the captain briefed the use of thrust reverser being inoperative or anything about the arresting gear. He had no concerns about the thrust reverser being inoperative.

When asked if he felt he was well trained, he stated he thought that he was.

When asked to describe the nose gear touchdown after the main landing gear, he stated that it was "normal", and he could not recall if the captain had called out manual braking.

He was trained on how to use the OPT. The captain did the performance calculations for the OPT. He could not recall where the captain got the weather or when he ran the OPT. Typically, they used ATIS for weather and they had the weather forecast on their computer flight plan.

The airplane should make audible speed calls from 50 feet, but he could not recall if he heard those audible calls on the accident flight. He did not recall hearing any audible antiskid brake cycling.

When asked if he could recall the weather that was given to them by ATC, he stated that they reported the wind condition as 340 degrees at 4 knots. There was no braking action report.

When asked if the captain hand flew the approach or if it was coupled, he stated that it was automated but was not sure when the autopilot came off.

He described the ambient lighting at landing as a dark night.

The flaps used were 30 degrees which was based on the performance from the OPT.

They always used the autothrottles as normal procedure.

When asked if he could recall his first OE trip and where he flew, he stated he flew from Tampa to Duluth then to Omaha. They overnighted in Omaha and then flew the next day but could not recall where he flew. He felt the first trip was a good trip. He did not recall the weather on that trip.

He did not interact with dispatch when the paperwork was picked up.

When asked if he felt there was anything we had not asked, he stated that he felt we asked everything.

He did not think there was anything he would have done differently as everything was "safe."

The interview concluded at 1643 EDT.