

Docket No. SA-533

Exhibit No. 14-B

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C.

Empire Airlines Personnel Interviews

(28 Pages)

Attachment 1

to Human Performance Specialist Report

CEN09MA142

**Empire Airlines
Personnel Interviews**

Interview: Bret A. Bedard, Empire Airlines First Officer

Interview date: July 14, 2009

Time: 1536 EDT

Location: Telephone interview

Present were: Katherine Wilson - National Transportation Safety Board (NTSB)

Represented by: None

In the interview, FO Bedard stated the following information:

He had been flying since June 2001. He got his ratings while working and became a flight instructor in September 2004. At the time of the interview, FO Bedard was still flight instructing. He was hired with Empire Airlines in September 2008, which was the first commercial airline that he worked for. He flew the ATR-42 and -72 and had about 2000 hours total time.

FO Bedard said he flew with Capt. Holberton from December 1-6, 2008, and April 27-May 2, 2009. The route for both trip pairings was from Santa Barbara, California, to Ontario, California. They flew to Ontario in the afternoon and back to Santa Barbara in the early morning. The pairing lasted from Monday evening to early Saturday morning.

He never experienced an emergency or abnormal situation when flying with FO Holberton.

FO Bedard stated that the first time he flew with Capt. Holberton, December 1-6, 2008, was during his first week on the job. He said the flight was routine and "nothing happened". Capt. Holberton made him feel pretty comfortable and he had a consideration for the fact that he was new. Capt. Holberton made it conducive to his learning and he taught him a lot. He said Capt. Holberton did not expect him to know everything and showed him how things went. FO Bedard felt comfortable with the captain and never felt uncomfortable asking a question or bringing up a point that he wanted to make.

FO Bedard never witnessed Capt. Holberton forget to use a checklist. He said people are human beings and the other pilot is there to catch any mistakes. He never felt uncomfortable on a flight with Capt. Holberton. When compared to other captains, FO Bedard said that every captain he had flown had given him an opportunity to learn but Capt. Holberton was one of the best if not the best of the pilots and he had nothing but respect for him. He said Capt. Holberton taught him things that other younger captains could not. He said every captain is different and all are proficient, but Capt. Holberton's unique subtleties by virtue of the fact that he had experience, made him above average.

Capt. Holberton was a captain he enjoyed flying with more so than a lot of other captains. He said Capt. Holberton would discuss his experiences which made it great to fly with him. He also talked about other planes he flew. Capt. Holberton never discussed being uncomfortable flying the ATR.

When asked what Capt. Holberton's greatest strength as a pilot was, FO Bedard said his experience level. In areas in which Capt. Holberton could improve, FO Bedard said all pilots can improve something but he could not say there was something for Capt. Holberton to improve.

FO Bedard never heard any other pilots complain about flying with Capt. Holberton and he never heard Capt. Holberton “bad mouth” the company. He said pilots would talk about the normal rants and raves about certain things.

Asked about whether Capt. Holberton discussed any safety concerns he had with the company, FO Bedard said that if the captain saw something he did not like about FedEx ramp operations that he was not afraid to speak up to get something resolved. Capt. Holberton was always looking out for what was not safe.

FO Bedard flew with Capt. Holberton since the accident. He said Capt. Holberton did not discuss it too much but would answer questions about how he felt after going through something like that. Capt. Holberton said it was very scary for him for the welfare of the accident first officer and then for himself. Capt. Holberton told FO Bedard that he had been up flying since the accident and he felt like he was doing okay. Capt. Holberton did not give any guidance to FO Bedard as to how to respond if faced with a situation similar to the accident flight.

FO Bedard did not socialize with Capt. Holberton outside of work.

FO Bedard said working at Empire Airlines was the best job he ever had and he had no safety concerns about the company. Asked if there were any external pressures from the company, he said nothing that makes things unsafe. He said there were no pressures from the company and it was the pilot’s job to deliver packages on time. He thought other pilots at Empire Airlines felt the same way as he did about working for the company.

FO Bedard was asked about the training he received at Empire Airlines for icing conditions. He said he received his training at Flight Safety which consisted of ground school and simulator training. He performed in the simulator a takeoff after being deiced, a takeoff in icing conditions, landing in icing conditions, and maybe holding. He thought he got the video “Be Prepared for Icing” from Empire Airlines during Indoc Training. Although he did not have anything to compare it to, he thought the training in general and specifically on icing at Flight Safety was excellent. Asked if there was anything that he would have liked to have different, he said he would have liked to have received the manuals before he got to training.

FO Bedard had experienced icing conditions in the ATR during his IOE in Alaska and occasionally on the route from Santa Barbara to Ontario. He said in both cases, it was no more than moderate icing. As a crew they performed the entering icing conditions checklist and other icing checklists, and every time they received the visual amber light and aural warning for icing. He said before departure and before the approach, the crew will set their airspeed bugs. Red bug was the airspeed for icing conditions based on the data card provided by the company which was determined by their weight.

FO Bedard had not experienced an event in which the flaps did not extend on approach but if he did, he would reference the QRH (quick reference handbook). He said based on their situation, they would act according to the QRH.

FO Bedard did not have anything else to add to the interview.

Interview: Craig K. Kilcourse, Empire Airlines First Officer

Interview date: July 15, 2009

Time: 1200 EDT

Location: Telephone interview

Present were: Katherine Wilson - National Transportation Safety Board (NTSB)

Represented by: None

In the interview, FO Kilcourse stated the following:

He spent four years as a flight instructor and got 1500-1600 dual given hours. After that, he flew for a Part 135 cargo airline for about one year. He was hired by Empire Airlines in March 2008. He had 3000 hours total time and about 600 hours in the ATR.

FO Kilcourse flew with Capt. Holberton twice – once in California and once from Seattle to SE Alaska. The first trip was for one week around Christmas time. He had never met Capt. Holberton before the trip and they flew from Bakersfield, California, to Ontario, California. He said the flight was trying for Capt. Holberton because a lot of stuff was not going right. Ontario was not used to two ATRs landing at the airport which created a problem at the FBO (fixed base operator). Capt. Holberton got “wound up” about their operation. Asked to expand on how Capt. Holberton reacted, FO Kilcourse said that he became overly agitated about the situation and “ranted” about it for the rest of the day. FO Kilcourse said it was nothing that affected safety really and Capt. Holberton was a super guy who was liked by everyone, was gregarious and funny. Capt. Holberton knew the airplane and what he was doing but he had the tendency to overreact about minor things. FO Kilcourse said he learned a long time ago that things did not always go right and he needed to go with the flow.

FO Kilcourse never experienced an emergency or abnormal situation when flying with Capt. Holberton.

When asked if he ever noticed Capt. Holberton not following procedures or completing checklists, FO Kilcourse stated that he witnessed a couple of things which opened his eyes to the situation. He said that Capt. Holberton had been with the company for 20 years and had the reputation of being a “guru”. However, Capt. Holberton had a tendency to short cut things, which FO Kilcourse thought was because he had been doing it for so long, and seemed to get in a rush to do things. FO Kilcourse did not feel that they were running late when flying with Capt. Holberton but he felt like he was being rushed. As an example, FO Kilcourse said that during the prestart checklist he called the item to check radios and instruments. Capt. Holberton responded “checked and set” although he had not done anything. FO Kilcourse believed that people can get lax when things become so familiar. FO Kilcourse stated that while he normally felt comfortable speaking up to Capt. Holberton, he thought the captain might have been embarrassed if it was brought up, so he did not. FO Kilcourse said that Capt. Holberton was a good crew member so he never had a problem speaking up to him.

On another occasion, when they were operating in a confined area, ground personnel would have to make sure that the wings were clear of buildings and such. He said while being pushed back in hotel mode, Capt. Holberton would want to start the engines which confused ground personnel, even though that was not how a hotel push back was done. He said the engine was started while

ground personnel were around and because the engine was in feather, a huge dust storm was created. FO Kilcourse did not understand why they were in “rush mode” and starting the engine when they should have waited until they were pushed back and unplugged before starting it. He said a similar situation occurred when they flew in to Seattle. The tug driver did not understand Capt. Holberton’s signal to start the engine, so the tug driver stopped and got out to see what the captain was referring to, which upset Capt. Holberton. If things did not go 100% correctly procedurally in Alaska, Capt. Holberton would “go off”.

FO Kilcourse recalled a flight into Ontario in which the pilot of a Caravan cancelled the flight due to supercooled liquid droplets (SLD). He and the captain talked about SLD and neither was concerned about it. He said the SLD was just a little bit. FO Kilcourse used to be concerned about flying in icing conditions but since flying around Seattle, he had flown in it quite a bit.

FO Kilcourse said that Capt. Holberton was someone he enjoyed flying with, but not in California when he was “over the top”. He said the next trip with the captain was great.

Asked if Capt. Holberton’s behavior was his personality or if he brought up any personal problems, FO Kilcourse thought it was his personality. He said he was always agitated and it was not something out of the ordinary. At least one other pilot told him about Capt. Holberton’s personality. His behavior was similar when they were driving as well.

Capt. Holberton did not discuss his experiences, good or bad, with flying the ATR.

When compared to other captain’s proficiency, FO Kilcourse said Capt. Holberton was good, real good. He said Capt. Holberton was more on the cutting corners side and less thorough on briefings. He attributed that to Capt. Holberton doing it so much and he was sort of blasé.

Asked what Capt. Holberton’s greatest strength as a pilot was, FO Kilcourse stated his overall knowledge of the airplane and the fact that he was tuned in to the environment they were operating in. As to what could be improved, FO Kilcourse said standard procedures. He said that Capt. Holberton went through recurrent training since the accident and the next time he flew with him he was way more compliant. Capt. Holberton told him that his heart was not in it when he went to training.

FO Kilcourse did not recall any pilots complain about flying with Capt. Holberton. He said they would joke about it and they thought it was funny. He said he was prepped before flying with the captain.

FO Kilcourse never heard Capt. Holberton complain about the company or the ATR and said that he seemed to be more into the company than most. He said if Capt. Holberton did not see something that he liked, he would say something and call the company. FO Kilcourse said his first instinct would be to talk to the person on the ground but Capt. Holberton went straight to the company.

Asked if he and Capt. Holberton spoke about the accident, FO Kilcourse said that the captain told him “red bug means red bug”.

FO Kilcourse did not socialize with Capt. Holberton outside of work because the captain lived in Portland.

FO Kilcourse liked working for Empire Airlines a lot and liked the pilots a lot. He said there was “griping” about some things like operating the ATR is like a fledgling but they got used to operating it. He had never worked for another airline so he did not have much to compare it to.

He said Empire Airlines’ safety culture was excellent. He said they got heavy training and then they fly so training can wane, and that is why the airline encourages them to stay up on it.

Asked if there were any external pressures from the company to have on time departures or arrivals, or quick turnaround times, that could impact safety, he said there were pressures to get out on time but that it was nothing unsafe.

He thought the morale of other pilots at Empire Airlines was similar to his. He said there was some union talk a year ago.

FO Kilcourse received ground school training at Empire Airlines where they watched the NASA video on icing and were also given a copy. He had simulator training at Flight Safety in Houston, Texas. He said Flight Safety instructors brushed over icing topics. He said they got a few approaches with icing speeds and a takeoff or two with icing speeds.

He recently went to Flight Safety for recurrent training and the training focused more on icing. He said they learned about tail plane icing. He said they were set up with heavy tail icing, and had a scenario with the autopilot on and got tail icing to see how the trim would work. He said that was insightful. They also did a takeoff with icing and approaches with icing. He said he was given icing during his basic maneuvers but that did not work because the airplane stalled almost immediately.

He said things happen quickly in the airplane and pilots need to have it sorted out before it happens.

FO Kilcourse said that the entering icing conditions checklist was on the yoke of the plane but not in the simulator. He said the first time a pilot he flew with called for the entering icing conditions checklist in the plane, he did not know where it was.

CRM (crew resource management) training was provided at Flight Safety for 3 days. He said it was more ADM (aeronautical decision making) rather than CRM. He said they analyzed other crashes and did exercises on communication to demonstrate that what one person said may not be what the other person heard.

When asked about the quality of the training received at Flight Safety prior to the accident, FO Kilcourse said he did not think it was very good. He was amazed it was so bad because he thought Flight Safety was the premiere place to train. He said the instructors were not very good and did not know their profiles very well. He said a couple of instructors were airline pilots but not very good instructors. They did not know the basics that were learned in FOI (fundamentals of instruction). He knew they were just getting people through and could not spend a lot of time. He said he thought the simulator instructor he had would not have been qualified for his previous flight school. FO Kilcourse said that before he went to Flight Safety the second time, Empire Airlines had a new training manager who had gone to Flight Safety and straightened it out.

FO Kilcourse said he had experienced a stick shaker a few times during icing conditions. He said they were flying the icing speeds and there was a little ice. Because they were in icing, the equipment was on which reset the AOA (angle of attack) indicator. He said as they started the approach, they came out of the icing but the equipment was still on. They did not cancel the AOA indicator and pushbutton until it was called for in the landing checks, so as they slowed down the stick shaker was triggered.

When the airplane detects icing, FO Kilcourse said an amber light will flash if the anti-icing or de-icing equipment is not on. He said if it was flashing they would turn all of the equipment on. If they picked up ice, there was a visual outside the captain's window and an icing probe. When the probe sensed ice, it will give pilots a TCAS alert or "ding". At that time, pilots should call for the ice accretion checklist and turn the equipment on. If the airplane had been in icing for 5 minutes or more and no additional ice was gotten, a blue light would flash and the pilots would turn off the de-icing equipment.

The appropriate checklists for icing conditions were the entering icing conditions checklist, ice accretion checklist and the leaving icing checklist. Pilots wait until no more ice could be visually seen before canceling the AOA indicator. Pilots also had a severe icing checklist, for example if ice formed on the windows behind the heaters, which were memory items. He said pilots should get out of that situation, increase red bug by 10 knots, bring torque up, turn off the autopilot and notify ATC. Asked what a pilot should do if severe icing is encountered on approach, he said if it was getting warm then they should continue the approach. If not, the pilot should "get out of there".

FO Kilcourse had not experienced an event in which the flaps did not extend on approach. He said there was a checklist procedure for it in the QRH (quick reference handbook).

FO Kilcourse did not have anything else to add to the interview.

Interview: Diana M Moroney, Empire Airlines Captain

Interview date: July 16, 2009

Time: 2000 EDT

Location: Telephone interview

Present: Katherine Wilson - National Transportation Safety Board (NTSB)

Represented by: None

In the interview, Capt. Moroney stated the following:

Capt. Moroney flew the ATR for Empire Airlines and was based in Anchorage, Alaska. She had flown commercially since 1995 with a majority of her flight time in Alaska. She had over 10,000 hours total time and about 700-750 hours in the ATR. She was also a rated certified flight instructors (CFI), flight engineer and airline transport pilot (ATP), and was typed in the ATR and DC3. She was hired as a captain at Empire Airlines in November 2007 and was typed in the ATR in January 2008. She began flying on the line on February 1, 2008.

Capt. Moroney flew with Capt. Holberton from January 14-16, 2009. They flew three round trip legs from Anchorage International Airport (ANC), Anchorage, Alaska, to Fairbanks International Airport (FAI), Fairbanks, Alaska. Capt. Moroney was the pilot in command (PIC) for all flights and sat in the left seat; Capt. Holberton sat in the right seat. It was winter time and they more than likely had to deice on the ground in Anchorage before each flight in the morning. During the trip pairing, the flight crew did not experience an abnormal or emergency situation. Capt. Holberton never questioned or commented on anything that Capt. Moroney did as PIC. She said it was all normal, SOP (standard operating procedures). Capt. Moroney thought that Capt. Holberton would be comfortable speaking up if he saw her doing something that did not make him comfortable.

When asked about Capt. Holberton's flying skills Capt. Moroney said the only oddity of the trip pairing was that she flew all six legs and therefore could not comment on his actual flying skills. This was at Capt. Holberton's request rather than the standard that a flight crew will switch who is the pilot flying every other leg. She said it was fine with her because she enjoyed flying. She did not question why he wanted her to fly all of the legs and he did not mention that he did not feel well or tired. She recalled that the weather was fairly good, there was nothing out of the ordinary and there were no approaches down to minimums.

She said Capt. Holberton was always upbeat and did not do anything as the pilot monitoring that bothered her. She said he might be a little more talkative than others at times but he did not miss any calls and he seemed to be attentive to what was going on. She had flown with a couple of different pilots that if she had an issue with them, she would call the chief pilot, but she said Capt. Holberton was "pretty straight forward" and always used the checklist. He did not miss anything and his checklist usage was good. She said all was fine and he never did anything that she thought was under what it should be.

Asked if Capt. Holberton was someone she enjoyed flying with, she said yes. She said his personality and mannerisms were good, and how he handled himself in the airplane. She never heard anyone complain about flying with Capt. Holberton or anything negative about him; however, being based in Anchorage she is somewhat "out of the loop".

She and Capt. Holberton talked about a lot of things during the pairing but she did not recall Capt. Holberton discussing any bad flying experiences in the ATR. She did not recall him saying anything bad about Empire Airlines or the equipment they flew.

She had flown with Capt. Holberton since the accident on the same route (ANC-FAI-ANC) within the two previous months of this interview. During the second trip pairing, the flight crew did not experience an abnormal or emergency situation. She said they did not talk too much about the accident because she did not want to pursue it. Nothing that he said was burned into her memory. She said he mentioned asymmetrical flaps and that he was not sure about what happened and if that was part of the accident. Capt. Holberton told her that he thought he got too slow.

Capt. Moroney did not socialize with the captain outside of work.

Capt. Moroney also flew with F/O Cornell for four days from December 9-12, 2008. They flew a round trip from ANC to FAI each day and worked 0800 to 1400. They alternated who flew each leg. She was sure that they encountered icing but it was not severe and probably not moderate. She said there is frequently icing when flying in Alaska, but she had never experienced bad icing since she began flying the ATR. She had when flying other aircraft up there. She said it was more of the standard climbing up through a little icing or in the decent through a little icing. She did not recall having to fly icing speeds.

During the trip pairing, the flight crew did not experience an abnormal or emergency situation. There were no malfunctions or write ups. She thought F/O Cornell only had 50-60 hours in the ATR.

Capt. Moroney flew with F/O Cornell the week prior to the interview. She said the weather was good and they had to do a couple of approaches to minimums due to poor visibility caused by smoke. She said they were restricted to one approach, a non-precision VFR approach. She did not think the ATR was the greatest for doing non-precision approaches coupled with the autopilot. She said F/O Cornell flew some of them and did not seem to be stressed, and did quite well. Capt. Moroney was never concerned with what the F/O was doing.

Asked if she thought F/O Cornell was open to input and suggestions from the captain, she said yes but she was quiet. She said F/O Cornell had a lot of instructing time and was not hesitant to say things quickly if something was not right. F/O Cornell would question something if she thought she had to. Capt. Moroney said some new co-pilots would not stand up but F/O Cornell did not seem to have a problem with that. F/O Cornell was very checklist oriented and did not seem to be rushed; she took her time doing things and was methodical about usage of checklists.

Capt. Moroney said she enjoyed flying with F/O Cornell. F/O Cornell did not discuss her experiences flying the ATR. Capt. Moroney said she flew the 72 more than the 42 so she would ask other pilots what they have seen when flying the airplane.

Compared to other new first officers, Capt. Moroney said F/O Cornell's flying skills were up to par. She said they flew together for limited days before the accident but F/O Cornell was pretty knowledgeable in approaches and IFR environments due to the amount of instructing she had. Capt. Moroney had run into pilots in the past at other companies who were flight instructors for so long that they had difficulty transitioning from critiquing all of the time to flying. She said

F/O Cornell did just fine and she did not question the first officer's flying skills because of having so much instructing time.

At the time of this interview, Capt. Moroney was paired with F/O Cornell. She said they did the standard of alternating who flew each leg. They had done a couple of approaches and she said F/O Cornell seemed very capable. She said nothing that the first officer did this time or the last pairing made her question anything. Capt. Moroney thought that F/O Cornell's experience level had gone up and neither time did she do anything that she would be concerned with.

When asked what F/O Cornell's greatest strength and weakness was as a pilot, Capt. Moroney said she was quiet and reserved. She did not seem to go out and challenge things as much, but not in terms of challenging what someone else was doing. Capt. Moroney said F/O Cornell was there doing the job and she worked well the captain. For someone who did not have crew time before, Capt. Moroney thought F/O Cornell grasped the crew theory.

Asked if there was an area in which F/O Cornell could improve, Capt. Moroney said she liked to see more hands on flying of the airplane. She said a lot of pilots use the autopilot but she liked to hand fly. She said F/O Cornell used the autopilot but could have hand flown earlier and longer.

Capt. Moroney characterized F/O Cornell's personality as quiet and pretty reserved, but said she had only seen her for about 8 days.

She never heard F/O Cornell bad mouth anyone, the company or the equipment. She never heard anyone complain about flying with the first officer.

Asked if they discussed the accident during their latest trip pairing, Capt. Moroney said she did not want to push her and she did not say much regarding the accident. F/O Cornell did not give her any ideas of what she thought went wrong.

She did not socialize with F/O Cornell outside of work.

Capt. Moroney liked flying for Empire Airlines and it was the first part 121 carrier she had worked for. All of her flying experience was part 135 in Alaska. She said you "see a lot" so when she looked at Empire Airlines she thought it was pleasant to have a great rapport with maintenance. She said it was good to work for a company where you did not have to push things. For example, if she had a problem with a flight or an airplane, she felt comfortable that she could call and say she had a problem. No one at Empire would question what she said, or try and push her into the flight.

Capt. Moroney said she was impressed with the safety culture at Empire Airlines compared to other companies she had worked for. She had no doubt that she could call and say she did not like the weather or something. She said Empire was in tune to safety aspects of everything and she never had to call a chief pilot to complain about dispatch. She said one time her flight was cancelled due to weather which surprised her because the weather was common for Fairbanks. She said dispatch was only looking at the terminal weather but RVR (runway visual range) was good and she asked them to dispatch the flight.

Asked if there were any external pressures from the company, she said there was always the pressure to be on time but safety was not jeopardized. She said it was about a daily occurrence

that they had to deice the airplane but that was not on their time. They strive for an on time departure and that comes from the customer. She said the company would not be happy if the crew caused the delay.

Regarding morale among pilots at Empire Airlines, Capt. Moroney stated she was limited in who she saw and talked to because there were only two pilots based in Anchorage and it was a three pilot base. She did not get a lot of interaction with other pilots but she heard things. There was talk about pilots going to the union and there were riffs spoken then but that failed and she had not heard too much lately. Other stuff she heard was just “whiney” pilots.

Capt. Moroney received 3 weeks to a month of training at Flight Safety International (FSI) when hired by Empire Airlines. After that she flew back to Idaho and did a couple days of flight training. She had failed her training on V1 cuts so they spent a few extra hours with her to make sure they were hiring someone who would do the job. She also spent one week in Rapid City, South Dakota, for IOE where she did 5 days of flying there. She did an additional 5 days of IOE in Alaska. She did a check ride with the “fed” in Spokane. Her icing training was received at FSI where they covered icing procedures and did some approaches probably in icing conditions, but she did not recall specifically.

She said her original training at FSI in general was pretty intense and she was not happy with the simulator work they did in the beginning. They did 6-8 sessions in the simulator, the preparation and then the check ride. She was not impressed with simulator instructor because he was teaching them stuff that was different than their company procedures, for example he referred to numbers from a different airplane occasionally and had to be corrected. However, the last time she went down there it was quite different. She said she enjoyed being down there and it was a pretty good experience.

Asked if FSI prepared her for icing conditions, she said she was personally prepared for icing because she lived in Alaska and had done it all of the time; she had seen icing she would never like to see again, so she was very leery of ice and very cautious of ice. Her mindset was that way but she thought just because of her past experiences and the area she flew in.

Capt. Moroney said they covered crew resource management (CRM) topics at FSI for 2 days. They went over accidents, most in which a lack of CRM led to the accident. She said it was pretty dry but it was not bad, just adequate. At the same time, it was formal CRM training as opposed to what she had before so in that respect it was quite nice.

Asked to describe the quality of the training at FSI, she said she liked the training at FSI the second time she was there. She did not know if it was because she was new in the airplane the first time she went there but she thought there were some things that could have been done better the first year. She had attended training at FSI with the same pilot who was hired at the same time as her. But in general she thought the training has improved and said the company [Empire Airlines] had gotten more involved in the training. She went to training at FSI for a second time in January 2009, which was around the time of the accident.

Capt. Moroney said she never experienced severe icing in the ATR, only moderate. The icing incident occurred after the accident. She said she could feel the characteristics of the icing – the airplane felt sluggish and she used caution in banks and turns and monitored the airspeed more closely.

She said the procedure for icing conditions was to immediately turn on level 2 icing which activates horns and all except airframe boots. She said with the ice detector they would get an aural warning and caution on the CCAS indicating that they are building (accreting) ice and they would then go to level 3's (airframe deicing on). The airplane would let them know if they had not accreted ice in 5 minutes and if not, and they were out of 'icing conditions' they could turn off airframe deicing boots. Once they were out of icing conditions and clear of ice on the airplane, they would turn off all of their deicing equipment. She had flown other airplanes and she liked that they turn on deicing equipment immediately rather than waiting for ice accretion, like in the Navajo.

Asked what checklist they use, she said they would use the entering icing, exiting icing and free of icing checklists. She said it was just what they did and was a part of their standard operating procedures.

Capt. Moroney had not experienced a failure of the flaps to extend in the ATR. She said there was an asymmetrical flaps checklist in the QRH. In her previous experience, especially in the Caravan, she knew personally that any change in configuration could "upset the cart so to speak" so if a pilot was going to change a flap setting in icing that they would need to do it with extreme caution.

Capt. Moroney did not have anything else to add to the interview.

Interview: Nicolas Peterson, Empire Airlines Line Captain and Check Airman

Interview date: July 23, 2009

Time: 1650 EDT

Location: Telephone interview

Present were: Katherine Wilson - National Transportation Safety Board (NTSB)

Represented by: Mark Dombroff - Dombroff, Gilmore, Jaques, and French

In the interview, Capt. Peterson stated the following:

He became a flight instructor in 1998 for about a year and a half and then worked as a charter pilot in South Dakota for one year. After that, he flew for CSA, a FedEx feeder, and flew the Cessna 208 for two years. He was hired by Empire Airlines in August 2002 as a Cessna Caravan captain. He was typed in the ATR 42 and 72. He became a check airman about 10 months prior to this interview. He had 6400 hours total time, 2400 hours of which were in the ATR.

Prior to the accident, Capt. Peterson was paired with F/O Cornell no more than 10 times. They flew several days of regular flying, but no training flights; the route was Seattle-Ketchikan-Sitka-Juneau. Capt. Peterson said all of the flights were normal and nothing occurred that was out of the ordinary. There were no emergency or abnormal events on any trips. He did not recall the weather conditions during the trips and whether they flew in icing conditions.

Capt. Peterson stated that F/O Cornell was open to his input and she asked a lot of questions regarding the flight during their pairings. Her questions led Capt. Peterson to believe that she was relatively inexperienced.

During the pairings, F/O Cornell never had to assert herself to him. Asked if he felt that she would assert herself if it was necessary based on the circumstances, Capt. Peterson did not answer. Asked later in the interview about F/O Cornell's CRM skills during the trip pairings, he said he had not flown enough with her to be able to answer that.

Asked if F/O Cornell was someone that he enjoyed flying with, Capt. Peterson said yes.

Capt. Peterson did not recall F/O Cornell discussing with him anything about the ATR that she felt was unusual or abnormal. She did not discuss anything about icing conditions.

Capt. Peterson was asked to compare F/O Cornell's proficiency/flying skills with that of other pilots at her level. He said she was on par with other first officers who came to the job straight from flight instruction. Asked what characteristics first officers have that indicate they came from flight instruction, he said new pilots that have single pilot IFR experience were more self-reliant and need less coaching. Asked if F/O Cornell was more self-reliant and needed less coaching, Capt. Peterson said no, she was the opposite of that.

Capt. Peterson stated F/O Cornell's greatest strength as a pilot was that she was non-confrontational. In terms of an area where F/O Cornell could improve, he said she could employ the skills she already knew without asking so many questions.

Capt. Peterson characterized F/O Cornell's personality as extremely mellow. He never heard anyone complain about flying with her. He never heard F/O Cornell complain about working for Empire Airlines or flying the ATR.

Capt. Peterson has flown with F/O Cornell as an observer in the jumpseat, but not as a crewmember. He did not discuss the accident with her.

Capt. Peterson knew Capt. Holberton and had spoken with him since the accident but had not spoken directly to him about the accident. He socialized with Capt. Holberton outside of work.

Asked if he ever witnessed F/O Cornell not use a checklist or miss checklist items, Capt. Peterson said no and that she was pretty good at that.

Regarding F/O Cornell acting as a pilot monitoring and whether she did an adequate job, Capt. Peterson said when he flew with her and on the flight that he observed after the accident, she did her job to the level that it had to be done.

During their trip pairings, he and F/O Cornell alternated flying legs, and said they almost always did this unless there was a significant weather concern on takeoff or landing.

Capt. Peterson received training at Flight Safety in Houston, Texas. Asked about the training he received on icing, he said they provided the required ATR procedures for icing. He said they had ground school and simulator training. He said all approaches were in to Memphis. He said there was an entire day of icing training and there were approaches done in icing conditions but he could not recall specific approaches. Asked if any approaches were conducted under moderate or severe icing, he said only the simulator instructor would know the level of icing that was on the airplane.

Capt. Peterson received CRM training from Flight Safety which lasted a day or two. Asked what topics were covered, he said it was typical CRM with a PowerPoint presentation.

Asked to describe the quality of the training and the instructors, he said it was greatly varying. Asked if there was anything that he wished would have been covered in training, he said it depended on the instructor when he was there. Capt. Peterson attended training at Flight Safety in October or November 2005 for initial training for 3 ½ weeks, and had been there several times since then for recurrent training. Since January, he had not been to recurrent training there but had so for check airman training.

Capt. Peterson had experienced icing conditions in the ATR, including moderate and severe icing conditions. Asked how the airplane responded, he said he never had an unexpected reaction from the aircraft in any icing conditions, including severe. Asked what the normal indications were, he said turboprops accumulated ice on the propellers creating vibration and reduced performance. He said there visual and audio warnings for ice accretion. He said there were specific checklists for entering icing conditions, ice accretion, leaving icing conditions and airframe clear of ice, and there was also a separate QRH checklist for severe ice. He stated the checklists were required to be completed when experiencing icing conditions.

Capt. Peterson had not experienced any flap malfunctions when flying the ATR. If a malfunction was experienced, he said there were various flap malfunction checklists in the QRH and also memory items associated with flap malfunctions.

Asked to describe the safety culture at Empire Airlines, he said he had nothing negative to say and thought they made an honest effort to promote safe activities. He said in thousands of hours of flying, he had never been questioned about a weather decision of his. Asked if there were pressures from Empire Airlines for on time departures or arrivals and quick turnaround times that would jeopardize safety, he said there was always pressure to be on time, that was their job, but if he had any safety concerns such as maintenance or weather, he never received pressure to go on a flight that would negatively affect safety.

Capt. Peterson said he liked working for Empire Airlines.

Capt. Peterson did not have anything else to add to the interview.

Interview: David R. Edgar, Empire Airlines Captain

Interview date: July 27, 2009

Time: 1305 EDT

Location: Telephone interview

Present were: Katherine Wilson - National Transportation Safety Board (NTSB)

Represented by: Mark Dombroff - Dombroff, Gilmore, Jaques, and French

In the interview, Capt. Edgar stated the following:

He went to Embry-Riddle Aeronautical University for his flight training. He was a flight instructor for about a year and then flew for about 2 years with a Part 135 cargo operator. Most of his flying there was primarily single pilot IFR (instrument flight rules). He was hired by Empire Airlines in February 2007 as a first officer. He was upgraded to Captain around April 2008. He was typed in the ATR 42/72. At the time of the interview, he had about 4000 hours total time, about 1200 hours of which was in the ATR.

Capt. Edgar flew with F/O Cornell a week or 2 weeks before the accident flight. They flew together for a whole week on the Midland-Lubbock-Alliance route. He felt that things progressed as normal during the trip and nothing occurred that was out of ordinary. They did not experience any emergency situations but could not recall if they experienced any abnormalities. He said it was a pleasure to fly with her.

Capt. Edgar said that he flew with F/O Cornell "quite a bit". He estimated that they flew together about 3-4 times per month on a monthly basis since she had been with the company, which may be more than any other pairings with a first officer he had had. He said they did not experience any emergencies when they flew together but could not recall if they experienced a small fault on a system, such as having to reset a system to fix a problem.

Asked to describe F/O Cornell's CRM skills, Capt. Edgar said they were good. She interacted well with him, had good situation awareness, and communicated well. She never had to assert herself to him during a flight but he felt that she would have spoken up if the situation called for her to.

He and F/O Cornell alternated legs when flying. Asked whether she did an adequate job as a pilot monitoring (making appropriate callouts, using checklists), he felt that she did.

Asked if they flew in icing conditions when they were paired, he said yes, the week prior to the interview. He said it was light icing that was encountered after they entered clouds. He did not recall who the pilot flying was, but the pilot flying called for the entering icing conditions checklist which was completed by the pilot not flying. He said they also completed the ice accretion checklist when they were picking up ice. He said they already had some anti-icing and deicing equipment on but they turned on other equipment such as airframe boots and continuous relight. Asked if she mentioned being uncomfortable when they flew in icing conditions, he said no.

Asked if she was open to input or suggestions from him when flying, Capt. Edgar said yes, that she was always looking for input or suggestions. He said at the end of the trip, a lot first officers

(including F/O Cornell) would ask how they did or ask if the captain had any recommendations for them. She would ask what she did good and what she needed to work on. He felt that Empire trained their captains to be mentors. He said although they learn how to fly the airplane before actually flying it, there were some things that cannot be learned until you fly the airplane and that can be learned from a captain who had been flying the plane for thousands of hours by asking questions or them giving constructive criticism.

Asked to compare F/O Cornell's flying skills compared to other first officers at her level, he said she was right there at average if not a little better than similar first officers with the same amount of time. He said her greatest strength was her system knowledge and aircraft control, for example, her approaches, takeoffs, landings and flying in turbulence. When she was flying, Capt. Edgar felt very comfortable with her. Regarding an area she could improve upon, he said she could have more experience in the airplane. He said that experience can only come from flying the line and not a simulator. He said he used to ask for a lot of input from a captain when he had low time in the airplane and she would ask questions such as what can she do better or techniques for using weather radar, and that could get mistaken by some people who think it is a detriment. He disagreed and felt it was a good learning tool and asking questions was a good resource.

Capt. Edgar characterized F/O Cornell's personality good. He said she was safe in the airplane and open for learning. She was a good pilot and easy to communicate and talk with; she knew the systems of the airplane well. He said he thought if there was a safety issue, she would bring it up.

Capt. Edgar never heard F/O Cornell complain about working for Empire or flying the ATR. He felt she was very thankful to have the job, enjoyed the flying and the people, and was really happy to be a part of the Empire team. He never heard anyone complain about flying with her.

Capt. Edgar and F/O Cornell did not socialize outside of work but he knew her for 2-3 years prior to her getting hired at Empire Airlines.

He estimated that he flew with F/O Cornell 8-10 times since the accident for a total of 15-16 days. Asked if they discussed the accident, he said they talked a little but she did not get into details. She told him she went to the hospital afterwards and was a little shaken up but she kept the details to herself, possibly at the request of management. Asked if he noticed anything different in F/O Cornell's flying or reactions to situations post accident, he said no, she flew the airplane the same way prior to and after the accident.

Capt. Edgar knew Capt. Holberton and flew with him when he was a first officer, probably a year to a year and a half ago. He said his personality was great in the cockpit, his CRM was good, and he always ran checklists. He said if there was a decision to make that was not time critical, Capt. Holberton was always asking for input from him, like what do you think? Capt. Edgar said he was good at communicating and followed SOPs as well as any other captain or pilot he had flown with. He was easy to get along with and to communicate with. Capt. Edgar said it was a pleasure to fly with him. When they flew together, they did not experience any emergency situations.

Asked how he liked working for Empire Airlines, Capt. Edgar said he liked it. He liked the equipment, the people, management and the schedule. He said they are not overworked at all. He

described Empire's safety culture as very good and he always felt welcomed. He said there were at least 10-12 different ways for employees to get a hold of the safety manager and all sorts of ways to report safety issues. He thought the company did a good job of making an emphasis on safety aspects, maintenance as well. Capt. Edgar never reported a safety concern.

Asked if he felt that there were external pressures from the company to have an on time departure/arrival or do a quick turnaround that would jeopardize safety, Capt. Edgar said no, FedEx maybe but not Empire. He said there was a little pressure to meet the schedule of being on time but FedEx and Empire would never allow that to jeopardize safety of the operation. He said there would be times when they would have a late departure and he would call Empire dispatch, and whether the delay was because of weather or being fueled later or whatever, their response was always "alright, don't rush anything" or "no worries". He got the same feeling of "don't rush" from management as well.

Capt. Edgar attended initial training at Flight Safety in Houston, Texas, in February or March 2007. Pilots were required to attend recurrent training at Flight Safety one time per year. Asked specifically about icing training he received at Flight Safety, he said it was pretty standardized and of the three times he had been there, he did not notice a change in icing training. He said they spent the same amount of time doing it, went over the same procedures and set up the same scenarios for icing. Ground school entailed learning about systems and in the simulator they would run checklists for entering ice and accreting ice and they would also be put into a severe icing condition. He said they would set it up to a level such that when they were flying the airplane or maneuvering for an arrival, they would lose control and then the pilot would have to regain control. He said there was a severe icing checklist as well that would guide them of what to do if control was lost – push forward on the yoke and flaps 15 degrees. Every time in the simulator, they were able to regain control. All three times they went through the procedures and a whole day in the simulator for icing shooting approaches including the severe icing scenario where they could feel what the plane when it was about to lose control, when it lost control and how to recover from that.

Asked to rate the quality of the instructors that provided the icing training, he said for initial training he would rate them as a 7 out of 10, or slightly above average. For recurrent, he rated the instructors as an 8.5-9, especially his last time back which was post accident. He said the overall training from the simulator instructor and the ground instructor seemed to be higher quality although the instructors were the same. He was very pleased with what he got in the classroom and the simulator.

He rated the quality of the Flight Safety training as a whole was pretty similar to how he rated the instructors because the instructors have so much to do with the training atmosphere. He said he had higher quality instruction on the last time or two he was at Flight Safety and the training all together was better. Initially it seemed to Capt. Edgar that Flight Safety was "really busy down there", for example, they were switching classrooms or simulators often, times would be postponed, and the instructor would change. He said the knowledge of the systems at Flight Safety was really good but it was more the customer service and getting more out of your training rather than things happening like switching instructors every day. He said the last 2 times he had been to the training, one pre and once post accident, the training was "way better". He learned a lot of tips and he came out with a lot more than his first time down there.

Asked if he felt there was anything lacking from his initial training at Flight Safety, he said initially they taught them how to fly the airplane well, they taught them the systems in ground school well, taught them about icing well and how to fly the aircraft in the simulator during icing. Flight Safety did not teach them or know Empire's SOPs very well. He said Flight Safety taught them how to fly the ATR, learned the systems and learned the procedures, and Empire taught them how to fly the "Empire" way, like ops specs, SOPs with call outs, and Empire profiles on when to put the gear and flaps down. He said that was outlined in Empire's training books and the last time he went to Flight Safety, they only went through Empire's books. He felt they were on the same page now.

Asked about the quality of Empire's training that he received after going to Flight Safety, he said it was great and the airplane was easier to fly than the simulator so he enjoyed it more. He said the instructors were good and the training was good. The instructors covered a lot of stuff regarding preflight or just flying the airplane that was not possible in the simulator. Training at Empire was good, safe and thorough. He felt that he got a lot of knowledge just from the Empire training that simulator instructors would not know, whether at Flight Safety or somewhere else.

Capt. Edgar received 2 full days of CRM training during initial and 1 full day of 5 days there during recurrent or Captain initial at Flight Safety. Topic covered were accidents, analyzing accidents, and what went right or wrong. He said the last time he went to Flight Safety, which was a month or two before the interview, they he remembered they discussed captain/first officer communication and communication barriers.

When asked if he felt that the CRM training was beneficial, he thought it did improve his CRM, especially during initial training. Because he did a couple of years of single pilot flying, he felt that the classroom helped out a lot. In the simulator he was acting like a single pilot and was not using any of his resources, so the instructor stopped the simulator 5 minutes into the flight. Capt. Edgar said the instructor gave him guidance on CRM in the simulator that he did not have to do it all by himself, for example pulling charts. He said his Flight Safety instructor was real strong on CRM and was by the book. He thought he got better CRM training in the simulator than the classroom.

Capt. Edgar had experienced moderate or severe icing in the ATR previously. He said the airplane felt underpowered but did not recall any mushiness or loss of control issues. He said if you did not take the corrective actions, even when the anti-icing and deicing equipment was on, it did not feel like it did a whole lot and the plane still felt underpowered when you were in moderate or severe icing. He said the best corrective action would be to immediately climb or descend before the airplane's performance becomes in question.

Capt. Edgar said there was a single aural chime and an icing light that will flash at the same time in the cockpit when the ice detector starts to detect ice. He said the pilot may also see the visual cues of ice accretion outside the cockpit on the spinner or leading edge.

He said there was also an exiting icing conditions and clear of icing checklist in the QRH. Capt. Edgar said that about 2-3 years prior to the accident, Empire also placed all icing related checklists on a sticker that was attached to the chart holder located on the yoke. He thought that was "pretty cool". He said they run the icing checklists often enough that if that was not there they would be pulling out their QRH very frequently. He said it was visible all of the time and they use that checklist or the checklist in the QRH.

Capt. Edgar had never experienced a flap malfunction in the ATR. He said there was a one or two step checklist in the QRH. He said there was a checklist for flap jam and asymmetry, as well as a flap unlock checklist.

Capt. Edgar did not have anything additional to add to the interview.

Interview: Richard A. Mills, Empire Airlines Director of Quality Assurance

Interview date: August 12, 2009

Time: 0840 PDT

Location: Empire Airlines, Hayden, ID

Present were: Katherine Wilson, Todd Gunther, Leah Yeager – National Transportation Safety Board (NTSB); Vincent Ecalte – Bureau d’Enquetes et d’Analyses (BEA); Dominique Falque – ATR; Douglas Dymock – Federal Aviation Administration (FAA); Steve Martini – Empire Airlines

Represented by: Mark Dombroff - Dombroff, Gilmore, Jaques, & French

In the interview, Mr. Mills stated the following:

At the time of the interview, Mr. Mills was the Director of Quality Assurance (DQA) at Empire Airlines. He said that was analogous to the Chief Inspector at the FAA. Prior to that, he was the Director of Safety and Compliance, and was in this position at the time of the accident. His duties and responsibilities as the Director of Safety and Compliance were to establish and maintain an active safety program for the company and the compliance portion of it was to be a liaison with regulators, for example, FAA, OSHA, and EPA.

He had been in aviation for over 25 years. He started as an avionics technician and went to Spartan School of Aeronautics after he got an architecture degree from the University of Arkansas. As an avionics technician, he worked for Eastern Metro Express in Chattanooga, Tennessee, for about 4 years. He started as an avionics technician and got his FAA mechanics license with an airframe and powerplant (A&P) endorsements. He was an instructor for them, became the manager of the training department, he taught maintenance systems on the DeHavilland Dash 8, and prior to leaving he became the Manager of Quality Assurance. He next worked for Pennsylvania Commuter Airlines, which became Allegheny/US Air Express in Harrisburg, Pennsylvania, for about 7 years as Director of Quality Assurance. After that, he worked for American International Airways, an international cargo carrier, in Michigan, as Director of Quality Assurance and FAA liaison. The company sold to Kitty Hawk International where he became the Director of Safety. He next worked for the National Air Carrier Association in Washington, DC, as the Vice President of Tech Services for about a year which included both maintenance and safety. In October 2001, he joined Empire Airlines as the Director of Safety and Compliance. He held no other positions at Empire Airlines until becoming the DQA about two weeks prior to the interview. Mr. Mills did not have a pilot’s license. He held an FCC general telephone operators license.

As the Director of Safety and Compliance, Mr. Mills reported directly to the President and CEO of Empire Airlines. Mr. Mills left the position of Director of Safety and Compliance for several reasons. He said the company was trying to fill the position of DQA for about a year and a half or more. The company held about eight different interviews but could not fill the position because they were not satisfied with the quality of the candidates. The company believed it would be easier to fill the position of Director of Safety and Compliance and Mr. Mills was qualified and interested in quality assurance, and had a substantial background in it.

Prior to Mr. Mills becoming the Director of Safety in October 2001, one of the principals that was actively involved in the company at the time, Vick Walters, was in that position.

Bradley “BJ” Slater was the Director of Safety and Compliance at the time of the interview. Mr. Mills said that Mr. Slater came to the company with a pilot’s license, an A&P license, an avionics background, was a certified flight instructor (CFI), and he graduated from Purdue University with an aviation degree. During the hiring interview with Mr. Slater, he described the safety meetings and programs that he had been involved in at the very small carriers he was associated with when in Alaska, which was where Mr. Slater’s flying background was from. Mr. Slater was involved with the Medallion Foundation and participated in their program. Mr. Mills said Mr. Slater had an excellent safety background. Mr. Slater’s previous position at Empire Airlines was as a 208 Caravan captain. Mr. Mills was not aware of Mr. Slater having a 121 background.

The safety department at Empire Airlines consisted of the Director of Safety and Compliance only. There were no plans in the immediate future to increase the size of the safety department. The flight safety department at Empire Airlines was responsible for accident investigations. Mr. Mills was notified of the accident telephonically by the dispatcher on duty when the accident occurred.

As the Director of Safety and Compliance, Mr. Mills interfaced with FedEx. He said that Empire was a feeder operator for FedEx and FedEx owned the aircraft. The feeder aircraft operators portion of FedEx had a safety program that involves all of the feeder operators in that program. They had a lot of interface with them. He said they all maintained a safety reporting system that includes for example incidents, accidents, and ground strikes.

Mr. Mills stated that an Empire Airlines employee developed an electronic database system and safety management system that FedEx liked and purchased for all of the feeder operators. The system allowed them to maintain their own safety information and submit de-identified information to a web-based central database where all feeder operators can compare the safety activities of the other operators. He said that although the information was de-identified, if an incident happened in a particular location, it could be easy to determine who submitted the report because they only operated out of so many places. Generally FedEx called the safety directors to a meeting 1-2 times per year to sit down and discuss the development of the safety management system. He said it was a good “swap meet” for information.

Mr. Mills was not involved with the hiring of pilots at Empire Airlines.

Mr. Mills said that FedEx encouraged the feeder operators to provide them with their safety data but it was not required. When FedEx received the data, it could be displayed and sorted in various ways, for example by type of incident. It allowed them to look at the types of issues other operators were having and what the causes were. It was helpful if they were doing proactive work. Separately, they got a monthly performance report from FedEx that gave them general information, especially about ground strikes. He said for the other issues, it was more of a “go and sort” type of a thing and nothing was specifically published.

Asked if Empire Airlines participated in any proactive safety efforts like searching through the database to identify safety issues, he said they had tried to be proactive in the past but he was not sure how effective they were but there were some things that “jumped off the page”. That part of the program was still in development. Asked if the number of personnel in the department impacted the effectiveness of their previous efforts, he said in a smaller operation it was difficult to set aside the time to do everything they wanted to do. It was not necessarily manpower

because, for example from a safety audit standpoint they tried to make the best use of their capabilities. He said in their Quality Assurance department they had a CAS (Continued Analysis and Surveillance) program where they did audits of their own operations. They tried to make the most that they can with the personnel they had. As far as the effectiveness, he said improvements could always be made and it really had to do with time.

Regarding the safety programs in place at Empire Airlines, Mr. Mills said that CAS was a required program under Part 121 and it will someday soon absorb reliability programs. The purpose of the CAS was to determine the effectiveness of the maintenance and inspection program. Empire Airlines developed a safety management system (SMS) but the FAA was still trying to develop a rulemaking that would require the development of an SMS to meet ICAO requirements. The US did not have a regulation in place. Based on what they knew about SMS and based on the four legs of the system – safety culture, risk analysis, identification and analysis and safety assurance – all of the elements were in place at Empire Airlines. He did not know if their system would meet the regulatory requirements. He said the SMS was the only program that they had in place. They were on the cusp of getting an ASAP (Aviation Safety Action Program) and the current Director of Safety had submitted a draft MOU (memorandum of understanding) to the FAA for approval. They were at the step of having their individual electronic database being developed for their use. ASAP will be for use by pilots, dispatchers and maintenance personnel. He thought they would have two event review committees (ERC). They were also investigating and considering the development of a FOQA (Flight Operations Quality Assurance) program. They had looked at having a LOSA (Line Operations Safety Audits) program. He and the Director of Maintenance attended a FAA safety symposium in San Diego, California, last year after seeing a presentation on it by Continental Airlines. The University of Texas was the administrator of the LOSA program. Empire had essentially put together a “hybrid program” in that they were doing it individually. They were not currently submitting de-identified data to anyone, for example ASIAs (Aviation Safety Information Analysis and Sharing). Empire’s program was a part of their internal evaluation program. They developed a 3-4 page line operational safety checklist that were administered by check airmen on checkrides to capture data about safety, including manuals, understanding of the safety program, how they make reports, how they conduct themselves, and how ramp operations were conducted. The check airmen submitted the checklist to the Director of Operations, who along with the Director of Safety, enter the data into an excel database where the data can be sorted. He thought that the data was reviewed and analyzed monthly to identify areas that need to be addressed. He said the check airmen can make comments and if something was identified at the time the checklist was submitted, that area could be addressed immediately.

Empire personnel could report concerns in a variety of ways which were advertised on a regular basis. From the pilot’s perspective, there was an irregularity report as a part of the manual system that has a general distribution than just the safety department. Pilots were encouraged to contact the Director of Safety via telephone or email. If they were at a station where the computer-based program was located, they could work with the mechanics to submit an “I have a concern” report through the electronic system. The concerns could be safety or quality concerns. As DQA, Mr. Mills was still actively involved in that program because it was not only a safety program. He oversaw the emails received and checked the system every morning for new entries and did a triage of the data. He managed all other entries as chairman of the CAS program. In addition, they also had a confidential safety report on the intranet website. Personnel can print a copy and fax it to a fax number which converts the fax to a PDF and sends it to Mr. Mills’ email rather than laying on an open fax machine. At orientation, Mr. Mills told new hires two things. First, he

said if they reported something they will get a response from him and if they did not receive a response then assume that he did not receive it. He told them that they will also get a follow up of whether the company was doing something about their concern or not. An explanation will be provided if they were not doing something about a concern. As the Director of Safety, Mr. Mills could be emailed directly or at the alias email "safetyguy@empireairlines.com". At the time of the interview, the emails received at "safetyguy" were being forwarded to Mr. Slater. Although pilots did not have to identify themselves when they submitted a report, they were encouraged to in case there were any questions about the concern or if the reporter wanted to receive a response. If Mr. Mills received a safety concern in the "I have a concern" system, he would send it to Mr. Slater who would enter it into the incident reporting system that he managed. Mr. Slater also had access to the "I have a concern" database.

If Mr. Mills was out of the office, there was a hand off process at the company and his position would be delegated to a designated person. This was required for 119.65 required positions. Mr. Slater could oversee "I have a concern" in Mr. Mills' absence.

Asked if there were any repercussions of submitting a report of an unsafe act, Mr. Mills said he could not recall an incident in which that was the case. He said they had become aware of incidents in which there was a potential non-compliance and those instances typically involved more than just the flight crew member. They would report it through the FAA's voluntary disclosure reporting program electronically. Mr. Mills recalled an event that initiated a letter of investigation against crewmembers. He was surprised that they received this letter and sat down with their FSDO manager because they had submitted a report through the voluntary disclosure. The FSDO manager said that the advisory circular would cover the crewmembers as employees of the company and the letter of investigation was withdrawn. The only protection that was afforded to crew members was through the voluntary disclosure program, if it was appropriate, or through the NASA ASRS system. These systems were available to pilots and maintenance personnel if they become aware of something they did that was a potential violation. They made personnel aware of these systems in case they became aware of something that they did.

Asked if Empire Airlines had a non-punitive, voluntary reporting system that personnel could report to, Mr. Mills said as a part of SMS, they published in that document that they were interested in what goes on out there from a safety standpoint and if it was an unintentional act the company would make every effort to deal with it in a non-punitive fashion. He said without ASAP, they could not "shield" them from regulatory responsibility for what they did so they made them aware of the NASA reporting system. He hoped in the future that it would not be an issue if someone made an unintentional error, it would be ASAP eligible which would provide them with a protection they did not have at the time of the interview. He said the company was "not into punitive" and did not want to fire people because Empire invests a lot in their personnel. There was a "frontal sheet" from the president assigned to that effect advertised to personnel.

Regarding a time frame by which the safety department would respond to someone who reported a safety incident to let them know what action was taken, Mr. Mills said the incident reporting system prompted the person doing the recording and tracking to mark that it was responded to and how it was responded to, for example telephonically or electronically. This tracking was administrative and was not accessible by those reporting safety concerns. He said some things could be corrected immediately and others may take longer, for example if it was a problem at a particular station and they would have to work through their FedEx field administrator. If a

safety concern was to take months to respond to, there was no formal interim report made to those who reported the safety concerns, but he knew of instances that would take a few months to correct and he emailed someone an update.

Mr. Mills said they receive 2-4 reports through their reporting systems each month.

The most prevalent safety concerns that Mr. Mills thought he had seen reported involved unsafe conditions on the ramp such as space on the ramp, marshalling concerns, GSE activity, people driving too fast, and improper marshalling techniques. Mr. Mills said it was difficult to know how these concerns were resolved or corrected because Empire Airlines did not have direct control over ramp operations, FedEx personnel did. As Director of Safety, he would work with the FedEx field administrator to contact the station manager directly but sometimes they would work directly with the airport. He recalled one instance at a small airport where ramp operations were not handled by FedEx. Crewmembers were concerned because they had tied down an airplane and helicopters were landing nearby blowing debris on it. He dealt directly with the airport and once the issue was resolved, he asked crewmembers to be his “eyes and ears” on the ramp and report to him if it had been effectively corrected. If he worked through a field administrator, there were 6-7 field administrators based in the various airports, they worked well together and always knew who to go to depending on what station it was.

Mr. Mills said they had not received any reports of safety issues related to icing or flap anomalies prior to or after the accident. Mr. Mills was not aware of any accidents or incidents involving a flap anomaly.

Asked if all crewmembers were made aware of safety concerns reported and their solutions or only the crewmember who reported the concern, Mr. Mills said it depended on what it was. Usually communication was limited to the direct crewmember when he was Director of Safety. If a concern was reviewed and they recognized it as a potentially system wide problem, he would work with the Director of Operations which could generate a crew bulletin to make others aware of a potentially dangerous situation.

There was not a stand-alone safety publication, but the company produced a monthly newsletter, Safety Corner, on a variety of issues such as ramp issues, flight issues or safety in the office – “a little bit of everything”. There was no “scientific” method to determine what to include in the newsletter. He would be aware of things throughout the month and would jot them down. When it came time to develop the article, he would see which one had the most impact. Some newsletters would cover 2-3 issues in one publishing. He tried to make sure that it was as germane to as many people as possible.

Asked if Empire Airlines held any safety meetings with crewmembers to discuss safety concerns, he said they did at various stations. It was not a formal process but when members of the management team go out to visit crewmembers they would hold a “quasi-safety meeting” to ask what their concerns and issues were. Last year, he and the Director of Maintenance did a two month tour to all 15 stations where they addressed safety concerns and asked for safety concerns. He said it was beneficial and they came back with “pages” of big and little concerns. There were no concerns reported regarding icing or flap anomalies, but he noted the timing was not appropriate for icing concerns because the meetings were held when it was warm. These meetings were not held on a regular basis. He recalled from early in his career that the Seattle

station held a “safety get together/BBQ” about once a month to discuss issues at that particular station.

Mr. Mills said he was not qualified to answer a question regarding Empire Airlines’ fatigue policies.

Mr. Mills was not aware of other accidents or incidents involving icing in the ATR 42 or 72. He was aware of an icing incident involving a Caravan over the Blue Mountain Range in Seattle. The airplane shed a lot of ice on landing. This incident occurred early on in his career. Asked about the cause of the incident based on the interviews that Empire conducted with the crewmembers, he said it was en route weather. Since then, he said they had “far superior” weather information both on board the aircraft and on the ground. What he thought led to the incident was less than adequate weather information and the pilot got into weather conditions that “nobody would particularly want to be in”. Asked if it was weather information that should have been provided by dispatch, he said no.

Asked what suggestions he would make to flight crews as the Director of Safety regarding flight in icing conditions or if they experienced a flap anomaly, Mr. Mills was not sure how to answer the question. He said what concerned him was tying a flap anomaly with icing conditions that they did not see with any regularity. There were so many things that he could imagine might happen. He said in this case the crew was not aware of the flap anomaly and were not aware they had a flap asymmetry so it would be difficult for him to recommend anything to the crew regarding a situation they may or may not know exists. As the Director of Safety, his counsel to any crew would be to tell them to familiarize themselves with icing conditions.

Mr. Mills was asked about the process that he went through to address a safety concern. He said who he addressed the problem with would depend on the nature of the problem and it presumed that the Director of Safety was familiar with and had a good enough interface with personnel in the organization to know who was best equipped to deal with the problem and take that problem to that person(s). It would also depend on who was available and who had the most ability. If it was a crew type problem, he would probably go to the Chief Pilot or a procedural problem to the Director of Operations.

Asked what information had been provided to personnel regarding the accident, he said it may not be all inclusive but the information that had been shared with crewmembers had come out of flight operations. The bulletins that were disseminated to crewmembers discussed icing issues such as super-cooled liquid droplets and types of icing. He said the Director of Operations could best answer that question.

When hired, Mr. Mills said he was aware of accidents that occurred at the company prior to him taking the position including Flight 665 that flew into adverse weather, a 208 accident at Lummi Island.

Mr. Mills said check airmen participated in the hybrid line audit system. He said the FAA POI was aware of the system and encouraged it. As a 121 carrier, Empire Airlines was involved in ATOS (air transportation oversight system) which replaced FAA auditing of operators. As a part of ATOS, when the POI was exercising the EPIs and APIs, he would come to questions like did they have a method to audit this function. Although it was not required by the regulations, the

answer was often that they did not have that. The POI suggested they develop a program. Empire thought it would be beneficial and they developed it.

Mr. Mills said Empire had approached the FAA with a draft MOU to get an ASAP program for flight operations and maintenance. The MOU was under review. He said the ASAP program had a data collection segment that was being federally funded that would provide a stand-alone server for each operator who had an ASAP program. The program would be set up to de-identify data so information could be submitted to a larger database. He thought they should have a functional ASAP program by the end of the summer.

Empire Airlines had talked to the FAA about getting a FOQA program but he was not sure about the plans to implement it. It was being reviewed as to what it would take to get a FOQA program in place. In order for the FOQA program to go in place, an ASAP program was a “necessary evil”. He said if they were to have a FOQA program that could potentially expose non-conformance or non-compliance, they needed to have a way to protect them. From Mr. Mills standpoint, people saw the benefit of FOQA but the focus had not been on the amount of money that would be saved by implementing a FOQA program.

Asked if FedEx approached the feeder operators about implementing a monitoring program or FOQA, Mr. Mills said it was being discussed through feeder aircraft operations. Mr. Mills was not a part of those discussions.

Asked if there were any ATOS enforcement actions pending under flight operations in addition to the two pending at the time of the accident involving hazardous materials, Mr. Mills thought that the two pending at the time of the accident were not generated by ATOS but were identified by a hazmat special investigator out of the northwest region. The investigators were not assigned to the operator but were independent. Mr. Mills said they had settled one case and a hearing had been requested for the other. There were two subsequent hazmat issues out of the northwest region; one had been asked to be transferred to Washington DC for an informal conference and the other one Mr. Mills was participating in an informal conference on that the week after the interview. In total, they had three open cases regarding hazmat. Mr. Mills said that the circumstances under which the actions were generated were out of their control. He said they had one other case open more directly related to ATOS due to them missing a portion of an AD. Actions were taken to ensure that it would not happen again. None of the cases were self-disclosed.

Regarding corrective actions taken since the accident occurred, Mr. Mills did not know where the company was in their timeline to install ice evidence probes to the airplanes which was planned to be completed by October 2009. He was not sure if the ice kits had been ordered. He said the Director of Maintenance could answer that. Mr. Mills thought that the flight operations bulletin 09-04 to prevent operations in freezing rain or drizzle had been distributed to crews. He said the Director of Operations would know about actions to provide navigational charting and procedures to flight crewmembers. He did not know the status of the fleet campaign directive to remove lids from document cases. He thought he had read the flight information bulletin 09-01, policies for setting airspeed bugs. As Director of Safety, Mr. Mills was not involved in the decision making process of when to distribute the bulletins. He said all departments were made aware and were on the distribution. When asked again to clarify if he was actively involved in the decision making process, Mr. Mills said yes.

Mr. Mills was not aware of the guidance sent out to Empire check airmen and the Flight Safety ATR manager regarding flap anomalies.

Asked if there were any additional corrective actions being taken that the NTSB should be made aware of, he said he would have to defer to the Director of Operations.

It was clarified that feedback was given directly to the person who reported the safety concern. Asked if it was de-identified and distributed to other crewmembers, Mr. Mills said it could be and had been but was not done for every report. He said it depended on the utility of the information to crewmembers. If it could affect anyone, they did it through a formal process with a flight information bulletin or it may show up in the Tailwinds or a telephone system of voicemail communication.

Mr. Mills said no complaints had been filed via the internal reporting system about Capt. Holberton or F/O Cornell before or after the accident. The complaints remain on paper in a file folder. They are not logged anywhere. For confidentiality they stay in a file folder and the activity surrounding it stays in the paper file folder.

All reports that were ever submitted to the Director of Safety, the incident reporter and “I have a concern” program were kept. The report will be closed in “I Have a concern” and then it will be opened in the incident reporter. It was a double accounting system. The incident reporter allows one to track recurring problems. Someone could search it, could develop a paper report where everyone in a meeting could get a copy and could export the data to an excel spreadsheet then sort by things such as type of incident, date, and aircraft.

Mr. Mills felt that having one person in the safety department was enough to deal with all of the tasks. He said it was always good to have extra hands but what he learned from a single person safety department was that if it was done right, then the person was not working alone. He worked with other departments. He said one person was not able to do it all but he worked with the quality assurance department who had people in the field and maintenance who had managers in the field, it was a good way to use all resources.

They did not ask someone to self-audit their own department. When auditing a department, Mr. Mills tried to find someone who had no involvement with the department, but sometimes that was difficult and in that case you want to be more strenuous with your review to make sure the evaluation was valid.

The only anonymous reports that can be submitted through the company was through the “I have a concern” program and hopefully the reporter would not identify the station they were at. He said they did not back track for punitive action. Their incident reporter system let Mr. Mills click a send button that would send their safety data as de-identified information to the common web database that was maintained by the FedEx Feeder Operations.

Mr. Mills did not have anything else to add to the interview.