Attachment 1

To Operations/Human Performance Group Factual Report

DCA11IA015

Interview Summaries

Interviews for AA 2253

Incident crew

Brann, Todd Wesley	First Officer	Dec. 30, 2010
Kalcevic, Timothy Francis	Captain	Dec. 30, 2010

Management

Cunningham, Richard McHenry	Fleet Captain	February 8, 2011
Peterson, William	Fleet Training Manager	February 8, 2011
Williamson, Penny	Weight & Balance Manager	February 14, 2011

Pilots having flown with incident crew

Laughlin, Kevin Michael	First Officer	February 7, 2011
Moquin, Thomas Allen	Captain	February 7, 2011
Taylor, Michael Brooks	First Officer	February 7, 2011
Olson, Marc N.	First Officer	February 7, 2011
Solloway, Robert	Captain	February 9, 2011
Fry, Kenneth	Captain	February 14, 2011

Interview:	**Todd Wesley Brann**
Date/Time:	**Dec. 30, 2010; 1700 EST**
Location:	**Via telephone; JAC Airport conference room**
Present:	**Roger Cox, Katherine Wilson – NTSB; Thomas Lange – Boeing; Robert Hendrickson – FAA; John David – APA (Allied Pilots Association; Head of Accident Investigation; First Officer)**
Represented by:	**Ray Duke - APA**

During the interview First Officer (FO) Brann stated the following:

His current position was First Officer B757/767 domestic operations. He was 48 years old and his date of birth was ----------. His date of hire at American Airlines (AA) was January 16, 1992. He had flown the B757/767 about 5.5 years (6 years as of May 2011), and he had about 3500 hours on the airplane. He held an ATP and airplane multi engine land certificates and a type rating on the B757/767. The limitations section stated B757/767 circling VMC only and B757/767 limited to FAR 121.543 for operations at AA. He had about 11,800 hours total pilot flight time, including 10,000 at AA and 1,800 in the USAF. He also had about 1,800 hours of flight engineer time in the B-727 and DC-10. He did not have any recent leave or absence from flying that might have affected his currency to fly the 757.

He had flown to Jackson Hole (JAC) since mid-December 2010 with the incident captain. The incident landing was his 4th time into the airport since mid-December and he had also flown into JAC a few months previously. He said flying into JAC in the winter, they dealt with slippery runway conditions, airplane loads were full and they had to be careful of takeoff and landing weights, the high elevation and the "slippery airport". He said the airport was a high emphasis airport and they had a lot more than normal to deal with; they had to be on their toes and be thinking of everything to get in and out of there safely. He said it was normal to start planning for landing about 1 ½ hours out.

The incident flight departed from Chicago (ORD) and there were no issues enroute. He said the incident captain was very active in finding out the runway conditions in the morning and about 45 minutes to an hour out from JAC he started talking to dispatch about any delays, alternates, that the runway conditions were slippery, whether they were legal to land and other operating issues. He said there was nothing abnormal about the flight until they touched down. There was no jump seat rider on the flight.

He said the reference speed (Vref) was 131 knots and they added 5 knots to calculate the approach speed (Vapp). He estimated the wind was about 40 degrees off runway heading at 6 knots, and were negligible. The airplane landing weight was about 195,000 pounds. The crew got the mu data and determined they could land. They briefed the approach as normal. He said the mu data was the braking action reading and the numbers they received were 42, 42 and 39. He said 40 and above was good and 39 and below was fair. They looked at their landing weight and determined that the braking action was not an issue but that they could not float on landing. He thought their maximum landing weight could be up to 198,000 pounds. The crew looked at the landing cards and determined they were legal and safe to land. They looked at the charts that

showed their weight, airport elevation and runway conditions of good, fair, or poor, and used good to determine this. He said it was a standalone chart in their manual and was also individually printed; it was a green card for the B757-200.

He said there were times coming in to JAC where they could not land due to runway conditions. Their alternates were Denver (DEN) and Salt Lake City (SLC) but when leaving ORD they were looking into another airport because the weather at those alternates was not great. However, the weather was fine for them to shoot the approach into JAC.

The AA B757-200 had Rolls Royce engines.

He said they received ATIS and he thought the captain kept copies. According to the ATIS, they had an 8 knot headwind. The airport changed the ATIS from X-ray to Yankee right before their descent. He said the winds were not a factor, the visibility was ¾ miles and braking action was good. There was also a report from another airplane of braking action of good.

He was asked to discuss the last fifteen minutes of the flight, including events from their approach to the landing and roll out. He said they briefed the approach and it was the same approach they always flew in there. At cruise altitude, they talked about the weather and alternates. They received information from dispatch which included the braking action. He said all was normal until touchdown. He planned to touchdown at 1000 feet or less from the approach end of the runway. He tried to go in to reverse. The levers moved slightly but he could not get the thrust reversers (TRs) out so he confirmed that they were in idle power. On his second attempt to deploy the reversers, he told the captain that he could not get them into reverse. The captain said he had the TRs and for FO Brann to steer. He did not feel the deceleration from the auto braking. He heard the captain say something about braking and he hit the brake pedals and went to max manual braking. The airplane felt like a sled.

By this point, they were about halfway down the runway. He heard the captain fighting with the TRs. He finally heard them come in but the sensation he normally felt was not there. He could hear them operating but the deceleration was not normal, maybe because they were slowed a little bit. The TRs came out at about 2000 feet or less left of the runway. As they were about ready to depart the end of the runway, he saw the runway lights at the end and chose to go to the right because it looked smoother and he wanted to avoid hitting the lighting. He was concerned about the asymmetric load and that the airplane would slide. He said there was about 3 feet of snow at the end of the runway where it had been plowed. He got a sinking feeling that they were going to depart the runway. They impacted the snow and he felt the deceleration. He thought it was the soft snow that slowed them and then they stopped. They secured the engines and the captain got on the PA and told the flight attendants not to evacuate. The captain then got up and went in to the cabin to check on the passengers. FO Brann was talking to the tower to see if someone could assess the damage to the airplane. He said that took some time but it finally occurred. It took about 40 minutes to clear the snow around the airplane so they could deplane the passengers. There were no injuries to the crew or passengers; they were shaken up but okay. The crew looked at the airplane themselves and did not see any damage. After that, he said the airplane was towed back to the pavement.

FO Brann was the flying pilot. He said the spoiler lever was armed but it did not deploy. He did not see any EICAS messages prior to touchdown. He said it was the duty of the pilot not flying to check the EICAS but he would also check it. He also reset the field elevation coming in to JAC. He did not see any EICAS messages as they started their descent out of FL380 and there was nothing prior to touchdown. There were no alerts brought to their attention. When the captain came back to the cockpit after checking on the passengers and they were evaluating everything, they pulled the circuit breaker for the data recorders. They also saw "left reverse isolation valve" and "auto spoiler" messages on the EICAS. They put this in the maintenance logbook and also wrote that the airplane departed the runway surface. He said the first time they were aware of the EICAS messages was after the incident.

He said max auto brakes were on and he did not do manual braking until the captain got on the controls. He also could not feel cycling of the antiskid; he felt like they were on a sled and there was no deceleration. When he went to manual braking, he did not feel a lot of difference or the deceleration he expected. He said the TRs did not come up to the interlock position. He felt that they were locked out. He felt about a ¼ inch of movement and got that feeling like something was starting to happen. He pulled as hard as he could. He checked that they were in idle. He tried again and then realized they were not getting any thrust reverser. He said he was totally outside the airplane so he did not know if they got the amber lights.

On the approach, he called when he had the ground and the runway in sight. He did not recall the exact altitude, but thought it was maybe 300-400 feet above ground. The runway did look contaminated; it looked like it had snow on it. There was a little bit of snow like the first time he flew in to JAC that month. He said the centerline looked like it had been plowed and groomed. It was not like the two middle times he flew in when he could see asphalt. He said based on the mu readings, they were similar to his first flight in back in mid-December. He did see a coating of snow on the runway during the incident approach.

Asked if he noticed any difference in the contamination levels down the runway, he said it felt like they were on a sled almost the whole time. He knew when they were not getting TRs that they were in trouble. He did not feel any deceleration and it felt like less than the reported braking action.

He said they were on the glideslope for most of the approach until at about 300-400 feet, when he used the 1000 foot marker as his touchdown point to have more runway in front of them. Once they were in visual conditions, he said he used the visual reference. He thought he touched down about 800 feet or so and the touchdown was firm. He said on a wet runway or a slippery runway, it was best not to go for a smooth landing; it was best to get the airplane down so they could stop.

The crew kept the passengers on the airplane and the captain initially told the flight attendants not to evacuate. The captain got up to assess and talk to the passengers and to make sure all were okay. FO Brann was not involved in that because he was in the cockpit talking to tower. He said there was an evacuation checklist in the QRH but they did not use that checklist. They used the "secure cockpit" checklist.

He said JAC was a special airport. If a pilot had not flown into JAC for a certain period of time, they had to review some videos. He was not sure if they changed things in the last few years. He said when he became a first officer, he had to fly in to JAC with a check airman and he did not think AA did that anymore. He did not think this new practice was a good policy. Because FO Brann had flown in to JAC every winter, he did not have to review the videos. He had also flown in to JAC during the spring. He felt comfortable flying in to JAC and knew the issues to be aware of such as terrain, slippery runways and the elevation. Prior to December, he thought it had been about 7 months since he had flown in to JAC. He thought he had been in to JAC 20+ times over the years.

He flew the ILS Zulu Runway 19 approach in to JAC, page 11-2 of the Jeppesen charts. He said there was a 10-7 page for the airport that needed to be reviewed every time they flew in to JAC. The crew looked at this page about an hour from landing. He said the captain had been into JAC many more times than he had. He did not have any concerns about landing on runway 19. He said it looked normal to him and JAC did a good job of plowing and sweeping the runway.

When the crew received the airplane in ORD, there were two write ups from December 27th about the air ground sensor and also an entry that the airplane had been ferried in from Dallas that morning and the crew did an autoland which was signed off successfully. He said the write ups did not concern him until he was sitting 600 feet off the runway in JAC. When they got the airplane, because of the successful autoland, they believed that the systems were working successfully.

He said there was a procedure to cross check and verify the speedbrakes and autobrakes settings and the crew had done this during approach preparation. The airplane was configured using flaps 30 during the approach and this was the normal landing configuration. The incident flight was the first leg of the day and they were doing a turn back to ORD. They were scheduled to land about 1140, would have had an hour on the ground and then would depart back to ORD.

FO Brann was not tested for drugs or alcohol after the incident.

Prior to the incident flight, FO Brann was off and at home. He said his weekend was normal and he was not out late either night; there was nothing out of the ordinary. On Sunday, December 26, he went to bed about 2300 and awoke on Monday, December 27 about 0730. He watched Monday Night Football and went to bed on Monday night about 2200. He awoke on Tuesday, December 28 about 0730. He flew to ORD on Tuesday night, landed about 1730 local time and went to his residence there. He watched football and went to bed about 2145. He said his rest was normal and he felt good when he awoke on Wednesday, December 29 about 0630. He was looking forward to flying on the day of the incident and the next day and then having the next two days off. He said he was well rested. His show time on Wednesday morning was about 0830 or 0840. He said if he got about 6-7 hours of rest per night he was good.

The trip pairing from ORD to JAC started in mid-December. Earlier in the month he had some Miami turns. He said he picked up some 2 day trips to get time off so he could spend Christmas and New Year's Eve with his family.

On the morning of the incident, he did not eat breakfast as he was not a breakfast person and he usually ate at JAC, but he did eat on the flight to JAC. He also had a couple of cups of coffee that morning.

In the past 12 months, he had not had any major changes, good or bad, to his health, financial situation or personal life. He considered his health to be good to excellent. He was required to have reading glasses available when flying but his distance vision was fine. He said he received a waiver for his color vision when he was tested in the military. He did not have a restriction for color vision on his FAA medical because he passed the necessary test. He did not have any hearing problems and did not wear a hearing aid. He took Allopurinol for gout when it would flare up, usually 1-2 pills on occasion. He last took a pill on the Saturday before the incident flight and he did not believe there were any restrictions when taking it. He had no side effects when taking the medication. He also occasionally took ibuprofen. He last had an alcoholic beverage on Monday night and occasionally smoked a cigar. In the 72 hours prior to the incident, he did not take any prescription or non-prescription medications.

He said during the incident flight approach, workload was normal, nothing unusual. He was familiar with the area and they had discussed all of the issues. He was very comfortable up until the point of deploying the TRs and "then things went south". He said there were no distractions on the approach and it felt like a normal landing.

He did not have any issues working for AA and his was main concern was them staying in business. He never felt any pressures to continue a flight. He said he got along with the incident captain pretty well and that the captain had a reputation. The captain had been there quite some time and some first officers thought he would try to let people know that he had a lot of experience which irritated some but FO Brann said he was easy going and never had a problem flying with him. They knew where each other was coming from and FO Brann was not afraid to express his opinion. He and the captain did not see each other socially when not flying because the captain lived in Chicago and he lived in Kentucky.

He said the captain was always upbeat and liked flying in to JAC. The captain told him he had been flying in to JAC for 19 years. The captain liked the challenge but was on top of the issues and did not press anything; he was "by the book".

Prior to being paired with the captain in mid-December, he had flown in to JAC with the captain last year and then a few trips off and on but he did not recall the last time. He thought they probably had a Miami turn about 3 months ago or so. FO Brann never had any crew resource management issues with the captain and he said the captain took everything he had to input.

AA operated under the Advanced Qualification Program (AQP). Pilots received human factors training during ground school. He said the program had gotten better over the years. He said he just did a R9 and he thought that human factors was taught during the R18. He could not be sure but he thought they received human factors training in both.

He said AA changed their training in the last 2 years where new pilots flying in to JAC no longer had to fly in with a check airman on their first time. He had not seen any problems as yet and said most of the pilots on the equipment had been there for some time and were trained under the old system. He thought Vail and JAC were two airports where watching a video did not quite cut it. He could see a first officer not having a check airman on the first flight, but if he was a captain, he would talk to the chief pilot and say that he would feel more comfortable flying with a check airman on the first time. He thought it would be safer when dealing with the issues.

He received training for TRs not deploying on landing and they made sure pilots were getting the proper calls. He said AQP was pretty condensed and the LOFT scenarios were so defined by the FAA that they could not go outside of those. He did not believe those scenarios were very useful for pilots who had been qualified on a type airplane. He did not recall the last time he had a TR failure in the simulator.

He said the co-pilot landing minimums were 4000 and ¾. He and the captain discussed it on the flight. He did not believe there other were restrictions at special use airports and he had landed there before.

He clarified that the maintenance logbook write ups were from December 27, 2010. He said the crew was required to go back 3 days of flight time in the log book but most went back farther than that. They would look for anything that might be an issue for the flight. He said there were no EICAS messages on the preflight that were cleared by maintenance or the crew. He said they had no TRs on landing and he did not believe they had autobrakes based on how it felt. He also did not believe they had auto spoilers. He did not feel the anti-skid start to release; there was no sensation at all. He thought the autobrakes were not working because the air ground sensor was stuck in air mode and also that the throttles were in approach idle. This was based on his systems knowledge; he believed the air ground sensor was an issue.

All B757-200 at AA had winglets.

He did not recall what the landing ground roll was; he said he would have to get in the charts. He said he and the captain discussed those things enroute but he did not have the specific number. Based on the conversation they had, to come in to JAC, they were within limits with a landing weight of 195,000 pounds. The AA touchdown zone was 3000 feet or the first 1/3 of the runway if it was short. They shoot for 1000-1500 feet but on the incident flight they wanted to touchdown at 1000 feet at the most to have as much runway in front of them as possible.

He did not recall the captain calling out that the speedbrakes were not up. He did not notice until everything was secured and all was calmed down in the back that the speedbrakes were still in the auto position. On landing, he said the pilot not flying should have deployed them and it was a call out in the AA ops procedures.

He said the green chart did not show landing distance. It was based on field elevation, landing weight and braking action. The crew used a 6500 foot elevation, 195,000 pounds landing weight, and a good braking action report. The chart would give them a distance which included 1000 feet of air distance and assumed all systems working on the airplane. He did not know what

that number was. He said the runway at JAC was 6300 feet and he believed they were below that. He believed there was also an allowance for something not working but was not sure.

The interview ended at 1823 EST.

Interview:	**Timothy Francis Kalcevic**
Date/Time:	**Dec. 30, 2010; 1829 EST**
Location:	**Via telephone; JAC Airport conference room**
Present:	**Roger Cox, Katherine Wilson – NTSB; Thomas Lange – Boeing; Robert Hendrickson – FAA; John David – APA (Allied Pilots Association; Head of Accident Investigation; First Officer)**
Represented by:	**Ray Duke - APA**

During the interview Captain Kalcevic stated the following:

His current position was Captain B757/767. His current certificates were ATP AMEL with type ratings on B757/767, DC-9, and G-S2. He was 60 years of age and his date of birth was---------- . His date of hire at AA was March 1, 1979. He first qualified as captain on the B-757 in 1992. He has not been a check airman at AA. He flew the Super 80 for 17 months in the late '90's but then came back to the B-757. He had had no recent leaves or absences affecting his currency in the airplane, and no previous accidents, incidents or violations. He had flown into JAC 300 to 400 times previously and had never had a landing or stopping problem.

Captain Kalcevic described the descent, approach and landing. They followed the normal arrival routing, direct to Dunoir and cleared to descend to 16,000 feet. The JAC ATIS said the ILS to runway 19 was in use, and they set up the radios accordingly. Crossing Dunoir they were cleared down to 13,000 feet and were cleared for the ILS approach. He then picked up the new ATIS and contacted the tower. They picked up a little icing and had anti-ice and wing anti- ice on at the marker. He reported to tower at Quirt and at Fapmo. The FO configured the airplane before the turn at Quirt. After completing the landing checklist, he noted that he could see the ground at 6950 feet MSL. The crew discussed the need to land on the first part of the runway with the intent to touch down about 5500 feet from the far end of the runway. The touchdown was normal, which was always firm there. The FO attempted to deploy TR's, and he said they did not deploy. The captain told the first officer to recycle the thrust levers, but they still didn't deploy. He noted amber lights on the EICAS. He told the FO to steer and he would reverse the engines. He exercised the thrust levers 2-3 times. They continued to go extremely fast, so he shouted "max braking" to the FO. The FO went to maximum manual braking, and the captain did too. He did not feel deceleration. Sometime in the last 1/3 of the runway the TR's deployed. They steered right to avoid lights and came to a stop beyond the end. He checked that they were good inside the aircraft and did the parking checklist. He made a PA, started the auxiliary power unit (APU) and called Aircraft Rescue and Fire Fighting (ARFF) to confirm that there was no damage to the aircraft. He shut down the engines when the APU came up to speed. He said the evacuation checklist was not run and was not necessary because he chose to remain on the aircraft.

He stated that the FO briefed the approach as he was the pilot flying (PF). He stated that earlier in the flight they had checked the landing distance chart for JAC. The landing weight was 194 – 195,000 pounds, and the chart showed they could land at a weight up to 198,300 pounds based on "good" braking action. He noted that if conditions were less than good, landing

distance would be 7,100 feet. However, the ATIS conditions were “good.” Both the tower and AA JAC Operations confirmed the runway conditions as good, with mu readings of 43, 43, and 39. He had seen worse conditions many times, and had been okay to land. He said that approximately 2 years ago, AA had revamped the landing charts, which were more liberal (allowed worse conditions) prior to the change. He had never had to divert while enroute to JAC. When he sighted the runway he thought runway conditions visually looked good.

He said the speed brake lever should always be armed for landing and it was armed during the incident flight. He could not say if the lever moved during landing, but it was in the armed position after the aircraft stopped. Max autobrakes were set, but he did not believe they were working. He thought the selector should have kicked off once they began manual braking, but it was still in “max auto” after stopping. He did not check the “autobrakes” light. He felt the TR levers move out of the interlock as he pulled them aft, but his only indication was the feeling. He did not look at the EICAS because he was looking out at the runway.

He said that special airport training was done by viewing a video. He had watched it, but it was not required every year and he did not remember the last time he had seen it. He thought the visual part was adequate but there should be more emphasis on landing and takeoff performance.

Regarding the airplane’s maintenance status, he said that there were no MEL’s coming out of Chicago, but that there was a green placard, which was a reminder for maintenance to do a periodic check. He thought this green placard had something to do with the right engine, but was not related to landing or stopping. He had looked back at the maintenance history of the airplane prior to departure and noted that there had been two entries two days prior to the incident flight. Maintenance had worked on the nose gear air ground switch and the main gear air ground sensors. He believed this was written up on December 27. Someone found an air ground switch message on preflight, and there was a fairly extensive write up which discussed pins and wires. Both items were signed off as corrected.

He had had an air ground switch malfunction on the B-757 before but could not recall details. TR indications were amber if trying to unlock and green when in reverse. He did not recall any status messages during the flight, but he noted that after stopping there was a “left reverser isolation valve” message. He did not believe that they had any stopping assistance from spoilers or autobrakes and no assistance from TRs until they deployed. He did not feel the antiskid working. He thought they might have heard a noise when TR’s deployed but could not be sure.

He said there were no NOTAMS which were significant for the approach and he had no concerns about the landing or distractions. Arming of the speedbrakes and setting the autobrakes switch were cross checked and verified using the checklist, and flaps 30, which was the standard setting for landing, was also done using the checklist. He was based at ORD and the trip was planned to return there that same day. He had not been screened for drugs or alcohol after the incident.

His last work prior to the day of the incident was Tuesday; he checked in at 0830 and released at 1645 local. Prior to that he had three days off. He went to bed Sunday at 2130. He arose Monday at 0600 and went to bed at 2130. He arose Tuesday at 0550 and went to bed at 2130. He woke Wednesday at 0614. He usually fell asleep within five minutes. His normal sleep was 7 ½ to 8 hours. He had been on a normal schedule, and had needed no special rest breaks. He had rotator cuff surgery in November 2009 and turf toe surgery in December 2009. He had had no major changes financially or in his personal life. He felt he was healthier than average, and played basketball 2-3 times a week and went to the gym. He did not wear corrective lenses and his color vision was normal. He took 10 mg of Lipitor per day, and had taken one on Wednesday. He had no side effects from this. His intake of caffeine was about 24-30 oz of Diet Coke daily. He last had a drink, a glass of wine, on Monday night, and did not use tobacco. The only other items he took were vitamin supplements. His workload the day of the incident was "high/normal" And they were in instrument meteorological conditions (IMC) most of the way down. He had no concerns about working for the company and had no external pressures from the company to continue the flight. He said "I stand up if I need to." He was very pleased with the other pilot, who was conscientious, alert and had a good state of mind. He had flown with the FO 6-7 times that month and numerous other times in the past, and he had no concerns about him. The FO was well above average, very easy to get along with, had caused no complaints and was a good basis for CRM.

The company trained under AQP and there were 2-3 hours of human factors training every 9 months. He was not sure if it was every cycle. He had trained on single TR failure, which caused yaw and should be handled gently.

He had not learned a lot of detail on the functioning of the air ground sensor. When the mu value was 40 it was the low end of good. He said the touchdown zone was 800 +/- 200 feet beyond the approach end of the runway. The charted landing distance included air distance before touchdown, so that when the chart said you could land at 198,000 pounds on a 6300' runway, air distance was included in that figure. He had no issues with lighting at the time of the landing, since they were in daylight. He took no notice of EICAS messages until after the airplane was stopped. AA procedure was not to go around after TRs were deployed, and they did not consider doing a go-around. He could not say whether AA would permit an airplane to land at JAC if one TR was inoperative. He stowed the TRs once the airplane was stopped. He did not call out that the speed brake was not deployed during landing, although the callout was part of the procedure. AA did train that speed brakes should be deployed manually if they do not deploy automatically.

The interview ended at 1920 EST.

Interview:	**Kevin Michael Laughlin**
Date/Time:	**February 7, 2011; 1000 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Robert Hendrickson – FAA; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Ray Duke - APA**

During the interview First Officer (FO) Laughlin stated the following:

His current position was First Officer, B-757/767, at American Airlines (AAL), and he had been in that position since 2004. He was 42 years of age and his "hire date" at AAL was June 25, 1989, because he was previously employed by American Eagle. He moved to the mainline in 1991. He last flew with Captain Kalcevic the first week of November, 2010, and he recalled flying with the captain four times, including once the previous summer, once to Las Vegas (LAS) and once to Orange County (SNA). The most recent trip they flew together was an ORD (Chicago-O'Hare International Airport)-MIA (Miami International Airport)-ORD turnaround in the B-767, with an 0535 departure time, one hour in MIA, and return to ORD at 1315. He recalled that they took turns flying legs and that the captain landed on runway 26R in MIA. There were no emergencies or abnormal conditions.

Captain Kalcevic was open to suggestions and was not overly assertive. Laughlin was comfortable speaking up and felt that he, Laughlin, could take constructive criticism well. Laughlin regarded Kalcevic as something of a "father figure," who would occasionally provide mentoring remarks. The captain was significantly older than Laughlin, and had grandkids, which Laughlin could not comment on. Three of the four trips they had flown together were on the B-757 and Kalcevic flew and acted the same on all of them. Laughlin rated the captain as skilled and much like the other AAL captains he had flown with. He felt that both of them could lose some weight. He felt that the captain's greatest strength was passenger communications, and he had a good personality. He had heard no complaints about the captain but would not repeat any gossip. He had no concerns about flying with the captain. He had spoken with the captain about ten days previously but they did not discuss the incident at JAC (Jackson Hole Airport).

He had flown into JAC. It was gorgeous in the summer months but had a short runway somewhat like SNA and had special charts and a video for pilots to use for familiarization. He believed that at one time AAL had required pilots to do an initial entry into the airport with a check airman, but that was no longer required. He thought training might be different for captains and first officers.

He had experienced a thrust reverser failure to deploy during his most recent simulator training two weeks earlier. Such training events were surprises and he was uncertain about how frequently such events were practiced in the simulator. He was unsure as to whether there was a procedure for "recycling" the thrust reversers following a failure to deploy. The pilot monitoring (PM) had to call out "no reverser," and state left or right engine as appropriate. The training scenario normally involved having one engine shut down, so it would not reverse regardless of pilot action.

In the event of auto-spoilers failure to deploy, the PM must call out “no spoilers.” The captain was then required to manually deploy the spoilers. The crew may check EICAS (engine indicating and crew alerting system) when they were not looking outside, but the captain’s response should be immediate. He did not recall any aural alert for auto spoiler failure. He described a technique of leaving two fingers in the vicinity of the spoiler handle during landing to ensure handle movement.

He reiterated that entry into JAC required review of the video and appropriate Jeppesen charts but did not require accompaniment by a check airman. He had not reviewed the video recently.

He did not commute to his base in ORD. He had flown into JAC once or twice a year in the past and his most recent flight there was 3-4 weeks earlier. On his last flight there the weather was forecast to be good, with 10 miles visibility, but at the time they arrived it was 1600’ overcast with 2 miles visibility in snow showers. The runway had been contaminated, but braking action had been good. They deiced before departing JAC, and had a load of 130 passengers. He did not recall landing at JAC near maximum landing weight.

He had not experienced a failure of the auto spoilers to deploy, but repeated that the captain was responsible for manual deployment in the event. He had experienced autobrakes failure to operate after being set but could not recall the details. A certain amount of manual brake pedal pressure would disengage the autobrakes, which would cause the autobrakes switch to move and an amber light to come on. He would call out “autobrakes” if this occurred. Normally he would move the autobrakes switch to “off” after clearing the runway.

His placement of fingers behind the fuel control switches to check auto spoiler deployment was a personal technique, and he was unsure what AAL taught about monitoring spoiler deployment. He did think AAL emphasized the need for captains to manually deploy spoilers if necessary. He said some captains retard thrust levers quickly during takeoff aborts in the simulator, and he ensures that his fingers were back far enough. He was unsure if a captain’s failure to manually deploy spoilers would result in a check ride failure at AAL.

During a ground evacuation the pilot should say “speed brake full forward.” The PA (public address) to the passengers was on the checklist and calls for the captain to say “remain seated.”

Regarding the calculated weight of children in the AAL weight and balance system, he believed that the weights were less than for adults but did not know the exact weight.

He recalled that Captain Kalcevic’s briefings were thorough and complete and that he did not discuss extraneous matters below 10,000 feet or make unnecessary radio calls to the control tower.

Interview:	**Thomas Allen Moquin**
Date/Time:	**February 7, 2011; 1100 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Robert Hendrickson – FAA; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Ray Duke - APA**

During the interview Captain Moquin stated the following:

His current position was captain, B-757/767, at AAL, and he had been a captain for about 20 years. He originally finished IOE (initial operating experience) on the B-757 the week before 9/11/2001. He was 52 years of age and was hired at AAL in April 1985. He lives about 40 minutes from his base at ORD.

He last flew with the JAC incident first officer within the last six months, and had flown with him at least six times and perhaps a whole month in the last six months. He had flown into JAC, but had not flown into JAC with the incident FO. He did not recall a specific trip pairing they had flown together and had experienced no emergencies or abnormal situations with him. He recalled the FO as one of those pilots you would not have an issue with. He considered the FO to be modest, efficient and responsive.

He went on to say that many FO's were upset right now because they were impatient to upgrade, but FO Brann was not like that. He was not egotistical, but was very competent. Competency was his greatest strength. He was comfortable in the plane and "in his skin," there were no complaints by anyone about him, and there was nothing he needed to do to improve. He did not bring complaints about the contract or the company into the cockpit like some pilots did.

Regarding talk from other pilots about the JAC incident, he said pilots had seen the YouTube video and most believed he touched down in the right spot and perhaps had a mechanical problem with the spoilers or reversers. Most pilots felt the captain would have handled the situation properly, and no one criticized him. Captain Kalcevic had been a union representative at one time and had offered Captain Moquin advice on how to handle certain FO's in the past. Moquin said he would have no reservations about flying with Kalcevic and other pilots said they felt if anyone could handle a situation at JAC it would be him.

He had had occasions on landing when the thrust reversers did not deploy. This occurs when one TR (thrust reverser) was deferred (placarded inoperative). He was not aware of anyone going into JAC with a TR deferred. In the event a TR did not deploy, the PM calls "no reverser," and in the event spoilers do not deploy the PM calls "no spoilers." It was common for pilots to remind each other if one of these items was deferred prior to landing. Reverse was more effective above 100 knots. For auto spoiler failure, the captain pulls the spoilers manually like in the B-727 days. Training for auto spoiler or TR failure may be done during LOFT (line oriented flight training) sessions, but would be initiated by other conditions, such as an HPSOV (high pressure shutoff valve) failure. Recurrent training was now done only every 9 months and it goes by quickly when you were trying to dust off the cobwebs.

Regarding training for flights into JAC, he said there was a video that they watch on the computer. It shows where the obstacles were and what to watch out for. There were also photos in the 19-1 Jeppesen pages. Crews have to stay qualified but he did not recall how often. He purposely picked up an eagle trip (EGE airport – Vail, Colorado) and he had to re-qualify with a check airman. He said the video was good but did not replace a check airman. It was an excellent tool to refresh memory.

The primary cue for TR and spoiler activation was feeling it, seeing the engines spool up and noticing the handle come back. There were EICAS messages too. The spoiler handle was much more obvious than any EICAS light, and can be seen with peripheral vision. If they work properly there was no callout.

Regarding landing weight going into JAC, he did not recall landing at maximum or tankering extra fuel. He was not aware of an AAL policy regarding tankering. He checks the TPS (takeoff performance system) to determine the appropriate weights. He had landed at JAC with "lots of snow," and recalled using max autobrakes. His first trip in was with a check airman, and they had reviewed the performance section of the manual to evaluate stopping ability. He relied on the FMS (flight management system) for determining runway required and landing speeds and did not use the landing data card or green chart. He recalled that they made the first turnoff at JAC, in front of the terminal, even when landing in snow. He recalled having a mu of better than 40. He had been into JAC in all sorts of conditions, and they pulled out the performance books and checked penalties when necessary. He recalled that the FO had checked the data and they had more runway available than they needed.

In the event of a ground evacuation scenario, he would have to advise flight attendants and passengers right away or they would act on their own. It was necessary to evaluate each situation. He would use the term "easy victor, easy victor" to evacuate or would tell everyone "please stay seated."

He did have an occasion when the auto spoilers did not deploy. Instead of saying "no spoilers" the FO yanked them up and the airplane landed hard. He would have preferred the FO make a call out. During training, if the captain did not deploy spoilers manually following an auto spoiler failure the company instructor would debrief it.

Regarding passenger weights on the weight and balance data, he said weights change seasonally and that dispatch knew what they should be, but that he did not know. He had not experienced a weight limit problem at JAC, although he did have such a problem at EGE one time.

Interview:	**Michael Brooks Taylor**
Date/Time:	**February 7, 2011; 1200 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Robert Hendrickson – FAA; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Ray Duke - APA**

During the interview First Officer (FO) Taylor stated the following:

His current position was First Officer, B-757/767 domestic, for AAL, and had been in the position for about 5 years. He was 45 years of age, was based at ORD, and had been at AAL since September 1998. He last flew with the JAC incident captain during the last week of December 2010, and had flown with him about 6 to 10 times altogether. On his last flight with the captain they flew into JAC. At that time conditions were pretty good; the mu was good, weather was VFR and landing weight was in the 180,000 lb. range.

During his last trip into JAC, there had been no emergencies or abnormal events. Holding was always a possibility and he always checked performance charts going into JAC to ensure gross weights were within landing limits. He flew to JAC with the incident captain (Kalcevic) more than once and could not recall for sure which times he flew and which times the captain flew. The captain had been open to his input, and if he noticed anything wrong he would be comfortable saying so. The captain was experienced, professional and had above average flying skills. The captain had been going to JAC for 19 years and he liked to talk, but not to the point of being distracting. He would fly with the incident captain again. The captain's experience was his greatest strength, and he had no glaring areas needing improvement.

Mr. Taylor did express opinions about many subjects, including the age 65 rule, the economy, and labor-management issues. Captain Kalcevic had been very active in trying to give good inputs to the company, but did not try to tear down the company. He felt the captain had had success with these inputs, but could not cite examples.

It was his belief that you could not fly to JAC with a TR placarded inoperative, but he would have to check the MEL (minimum equipment list) to be sure. Regarding training for JAC, he believed that captains needed an entry with a check airman but that FO's could just watch the video. He had seen the video, which was adequate, and studied the Jeppesen airport pages. He felt JAC could be very challenging and it was best to go there with someone experienced. He had not had any emergencies on JAC flights.

Failure to deploy of thrust reversers or spoilers required a call out by the PM, but he could not say how commonly this was seen in training. If the spoilers did not deploy, the captain was required to deploy them manually. The cues for TR deployment were the green REV lights, noise and deceleration. Call out of any failure by the PM was very important. It was his practice to guard the throttles and spoilers. Based on Category III procedures, he expected the spoiler handle to hit his hand, and if it did not he took a glance at the handle. It was his belief that there were also EICAS messages for these failures.

He felt Captain Kalcevic's briefings were complete and thorough. On flights to JAC, he did extensive preparation on the mu values, on the airport, and what went into the chart, and knew it very well. He had previously taken the time to survey the field, look at the snow removal equipment, and what was used to clean the runway. He was something of an encyclopedia about JAC, and was happy to pass along that information. He understood what was behind the ATIS information and was well prepared. The FO still needed to cross check all the numbers and charts and the captain would not appreciate an FO who did not do so. His job was to trust but verify. There was a B-757 special analysis chart for JAC, referred to as the "green chart," which summarized landing performance for that airport.

It was common to be up against a max landing weight situation at JAC, which was why it was so challenging. Max landing weight could vary greatly based on conditions. However, he had never landed there when he had any doubt about ability to stop. He had been dispatched there one time where they needed to burn down 3000 lbs. before they could land. Conditions had been forecast to improve, but they didn't. JAC did a good job of cleaning the runway, but they still often needed extra fuel for an alternate.

He discussed the use of the landing data. He was referred to the "green chart," which showed the landing distance was 6300 feet (the actual runway length) when gross weight was 198,000 lbs. and the runway condition was considered good, but 7100 feet if it was considered fair. He said the captain had called JAC Operations to try to determine the reality of the runway conditions. FO Taylor had heard of mu values around 40 but could not say how this would be interpreted depending on if the values went higher or lower.

He did not recall a specific instance of auto spoiler failure in simulator training as a standalone event, although it may have been part of initial upgrade training.

Regarding the ground evacuation procedure, they were taught to stop and evaluate the situation. There was guidance on the back of the QRH (quick reference handbook) to assist in this evaluation. The FO did not make any PA announcement, and he did not think any announcement was "scripted" or required by the captain.

He said the captain did point out certain geographic locations on the PA during the approach to JAC when they were below 10,000 feet because it was beautiful scenery. The FO said that the captain might take offense it he was told this was a violation of the sterile cockpit rule. He said he was a "chatty guy." The captain had spoken to the tower to try to get extra information about field conditions, but also asked about an airport tour he planned to take because he knew people in the tower and said "see you on Tuesday" or words to that effect. The FO did not feel that the remarks were distracting.

He was aware of an FAA letter of warning previously issued to the captain but said it was part of rumblings behind the scene and he could not verify the details.

Regarding the airplane "final count" (weight and balance) he was unsure as to the exact passenger weight used for adults and children. However, he would do a "common sense" check

on the weights. The big numbers to look at on close out were the zero fuel weight (ZFW) and the actual fuel.

Interview:	**Marc N. Olson**
Date/Time:	**February 7, 2011; 1310EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Robert Hendrickson – FAA; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Ray Duke - APA**

During the interview First Officer (FO) Olson stated the following:

His current position was B-757-767 International FO, and he had been in that position for about 15 years. He was 49 years of age and had been hired at AAL October 10, 1991. His most recent flight with the incident captain was a "double" LAX (Los Angeles International Airport) flight at the end of November 2010. He had flown almost that whole month with Captain Kalcevic. They had flown together about 10 times but had not flown into JAC together. Their last trip was a three day trip to LAX and DFW (Dallas-Fort Worth International Airport), and they had also flown to EGE, MEX (Mexico City International Airport) and SNA on other trips. They generally took turns flying and they had not experienced any emergencies or abnormal situations.

He believed that the captain was open minded and provided good information and suggestions. He felt it was okay to speak up if necessary and he enjoyed flying with the captain. The captain did not discuss his experiences but did provide input when it was appropriate. As an example, he pointed out some things about how controllers at JFK handle arrivals, and discussed unusual ("squirrelly") winds. He felt that most AAL captains were excellent but he would rate Captain Kalcevic as one of the top captains to fly with. The captain's greatest strength was doing things as expected and flying the way they trained. No one complained about the captain, and he was easy to get along with. The captain did not complain about the company or the equipment. Olson did not know the incident FO and had not spoken to either incident pilot since the incident took place.

AAL training for situations where a TR did not deploy was normally engine out training. The PM will remind the PF (pilot flying) about the TR and will call it out. He had one instance of a TR hesitant to deploy on a flight; he called it out to the captain. It was not uncommon to fly with one TR locked out (placarded inoperative). There was no guidance about moving the thrust levers to forward idle and then redeploying the TR's but this may be done after landing and clearing the runway. Training focused on aborted takeoff and engine out landings. He recalled some flights where auto spoilers were slow to deploy, perhaps because of a wheel spin-up signal. If the TR fails, call out "no TR on the left engine," for example.

The main cue for TR deployment for the PF was feeling the airplane settle, like sitting down in a chair. You can hear spoilers deploy. The EICAS will show amber REV and then green. If the spoilers do not deploy and the captain doesn't deploy them, he will deploy them.

He flew B-52's and would look for spoiler deployment when landing that airplane. The procedure for an aborted takeoff was throttles idle, speed brake deployed and max braking, and

sequence was important. Captains always do the abort. On the type rating ride, if you miss the spoilers you must perform the maneuver again.

He had not flown into JAC but had flown into EGE with a check airman in 1997 or 1998 and had seen the video. The check airman was more valuable than the video.

FO Olson lived in Chicago and did not commute to the base. He believed that Captain Kalcevic's briefings were complete and he covered everything on the first approach. He did not go into quite so much detail subsequently, but he never left anything important out. For example, when they flew the Canarsie approach to 13L at JFK he was careful to discuss all aspects of the approach. He did not point out things on the ground that were irrelevant and he did not have conversations about subjects not related to the approach environment. He had not flown with the captain when max landing performance was required. He had not had an experience where the auto spoilers failed to function.

AAL had required use of auto spoilers since the "London" experience. The B-757 auto spoilers were reliable, but if they failed to deploy the captain manually deployed them. When the FO was PF and spoilers were armed conditions and they do not deploy, the CA deploys them. When the CA was PF and the FO recognizes they have not deployed and if the captain was not reaching for them then he would reach over and deploy them.

During a ground evacuation, it was the responsibility of the captain to brief the back (passengers and flight attendants) on the PA. If no evacuation was needed, he tells them that. The FO would not say anything to the back.

When looking at the weight and balance final close out figures, he did not compare the number of regular and child passengers and check the accuracy of the weight. He checked planned versus assumed weight and any revisions but otherwise relied on the TPS (takeoff performance system to provide accurate weights and performance data. He could not say what regular winter/summer passenger weights should be. He would have to look up the proper weights.

Interview:	**Richard McHenry Cunningham**
Date/Time:	**February 8, 2011; 1405 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Doug Cotton – AA legal**

During the interview Captain Cunningham stated the following:

His current position was B-757/767 Fleet Captain, and he had been in that position for 14 months. Prior to that he was a B-757/767 check airman, and he had been qualified on the B-757/767 since 1999. His date of hire at AAL was October 17, 1978. His duties and responsibilities included being chairman of the fleet support team, comprising a technical pilot, the ground school supervisor, a fleet specialist (author' manuals), the fleet training captain, and himself. He had overall responsibility for the procedures employed on the fleet. Dave Strand was the tech pilot and Bill Peterson was the fleet training manager.

It was AAL policy to arm the auto spoilers for all landings, if operative. He said auto spoilers were activated by wheel spin-up and truck tilt and affected by nose wheel touchdown. He could not give a complete list of the inputs. The normal procedure if the spoilers were armed but did not deploy was that the PM would call "deployed" or "no spoilers," and the Captain was responsible to pull them manually. This procedure was in the manual. He had not re-emphasized this in bulletins or other communications, in part because he was awaiting NTSB findings. However, he was seriously considering doing so.

AAL policy on use of thrust reversers was to use them on every landing as soon as possible if available, and it was permissible to begin the deployment before the nosewheel touched down. The policy for identifying deployment was for the PM to call out any abnormality. For example, the PM might say "no reverser, L or R engine." The EICAS provides amber REV in transit light which goes green when deployed. The reverser should not go beyond reverse idle until the REV light was green. The policy was to temper the use of reverse when there was a deployment failure to avoid the effects of asymmetric thrust. AAL did not have a procedure for what to do if neither TR deploys. He was not familiar with the term "recycling" of the thrust levers and AAL had no policy in that regard. He was not aware of any reason to bring the thrust levers forward to idle and then bring them back to reverse if they were not actuating.

He could not provide an example of any prior events involving a B-757 on a short runway with questionable conditions in terms of contamination which did not get all the stopping power from the airplane. However, he would review company information and provide it if any such events occurred.

He had known the incident captain for 40 years and in the Navy, and he was not aware of that captain having any accidents, incidents, violations, training repeats or failures of any kind. As the fleet captain he could know if the incident captain had any airplane operating issues.

He was familiar with the B-757 Special Landing Analysis page known as the "green chart." The chart was not his direct responsibility, but came under a group within Flight Operations which maintained the performance manuals for four fleets. The data provided was identical to that provided on another chart known as the cross wind and landing weight card, except that it was customized for the runway length and airport elevation at JAC. He was referred to the lower right corner of the green chart, which showed a landing distance of 6300 feet for a weight of 198,000 lbs and good runway conditions, and a landing distance of 7100 feet for the same weight but fair conditions. He said the policy was for the pilot to use all available information to determine which column to use. He could use braking action reports from other aircraft, for example. He said AAL also provided another chart on page 50.4 of the performance manual which described in more detail how reported conditions and mu values might be correlated in order for the captain to accurately assess conditions. It was appropriate to evaluate the three mu readings at JAC and interpret them. The manual also required the crew to use the most adverse conditions when assessing landing. The crew might base their decision on use of the full length of the runway or they might use only conditions on part of the runway. The far end of a runway could be slicker than the approach end. If they based the decision on stopping in the first two thirds of the runway and then they were unable to get stopped in that two thirds they might have a situation which was worse.

Regarding passenger counts and weight and balance, he said AAL posted weights for passengers which varied by season and locale and which pilots did not have access to. A child count provided some weight credit, which also varied. The B-757 seating was 188, so a count of 175 adults and 14 children would mean at least one child was an infant, which did not have a discreet weight. In general, if the pilot saw a count of 175 adults and 14 children it would mean 189 souls on board. He said AAL had a load department which could explain the details for the incident flight. The captain could call the load department on the radio if there was a question about the passenger count.

The manuals required for captain and first officer varied depending on domestic or international operation and could be found in part 1 of the flight manual. The 10-7 pages were updated on an "as needed" basis. If something changed, such as the engine out performance or noise abatement procedure or the airport configuration changed they got that information from a variety of sources and made updates to the pages. Pilots got changes every two weeks, but urgent information was pinned to the flight plan. He did not know when JAC had last been updated.

He had known the incident captain for 38 years but had not flown with him. He did not know the incident first officer. He had heard no complaints about either one. AAL followed AQP (advanced qualification program) for training.

He said TR failure was practiced in virtually every simulator session during the single engine portion of the training, but he could not say when or if auto spoiler failure was practiced. He did not know of a case in which auto spoilers and both TR's had actually failed to deploy on a flight.

Cockpit resource management (CRM) was an integral part of everything they did in flying, and they also formalized the human factors subject in recurrent training. That training was

guided by a line Captain who was trained in human factors and the gist of it was to review events that had happened and to review the possible outcomes along the way. He would describe it as guided hangar flying and mostly a discussion.

The airport training video for JAC was a two part video; the first part described the airport particulars, including all the things crews must watch or plan for. The JAC video talked about noise abatement and terrain and runway length. The other part was an animation of an actual flight landing at JAC and in this a B-757 was the model to make it realistic. They juxtaposed the animation with actual recordings of a crew going in there and you could hear precisely what they could expect – almost like actually being there. He said it was pretty good. He said an initial entry into JAC with a check airman was not required, but he could not say why this was so. In the neighborhood of 2002-2003 AAL had a program called "International Redesign" which reformulated which airports had check airmen go in with pilots, and he believed that was when the JAC policy changed. JAC was not considered a "special airport," and he did not know why.

AAL had FOQA (flight operations quality assurance) and ASAP (aviation safety action program) programs and Captain Cunningham was the first FOQA program manager. AAL also now had ASAP programs not only for pilots, but also for mechanics, dispatchers and flight attendants. FOQA data was shared with him monthly in his role as fleet captain. There had been no recent FOQA events related to TR or spoiler failure to deploy. When Cunningham first moved into his current position, he had received an email from Captain Kalcevic in which he expressed concern that the AAL B-757 MEL did not prohibit landing at JAC with one TR inoperative. The email was not the basis for a change in policy. However, during December of last year the local CMO held a meeting to discuss runway excursions at JAC, and following that meeting AAL decided to require both TR's to be operative when landing at JAC. The policy was changed before the December 29 incident.

He was asked to clarify the procedural difference in handling the spoilers between a takeoff abort and a normal landing. He agreed that during an aborted takeoff the procedural sequence of events was: idle power, deploy speed brakes, and deploy thrust reverse. On a normal landing, the same order would be followed but the PF would not see the speed brake deploy, and it was the duty of the PM to observe the speed brake deploy. AAL did not promote the idea that the FO should have his hand near the spoiler handle because it came back forcefully and could hurt the FO's hand. The PM was supposed to visually check that the speed brake handle deployed.

He understood that the landing weight in the JAC incident of 194,000 to 195,000 lbs was near the aircraft maximum landing weight of 198,000 lbs, but he did not know if such high landing weights were a frequent occurrence at JAC. He said AAL did not have a formal fuel tankering program but they would do it when it made economic sense. He was not sure if going to an airport in challenging winter conditions would affect a tankering decision. AAL had made changes to its flight manual in the last 4 to 5 months emphasizing the need to manually deploy speed brakes following a bounced landing. Changes to each revision were highlighted for crews to emphasize what had changed.

He said he did not know the last time the JAC airport video had been changed, but that if there were lessons to be learned from the recent incident he would expect they would make the information known to everyone. AAL's B-757 aircraft had Rolls Royce engines and they still had a reverser isolation valve light on the fuel control panel.

Interview:	**William Peterson**
Date/Time:	**February 8, 2011; 1500 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Doug Cotton – AA legal**

During the interview Captain Peterson stated the following:

His current position was B-757/767 fleet training manager, and he had been in that position since June 2009, about 18 months. His duties and responsibilities included being in charge of school training, check airmen, instructor pilots and simulators for the fleet. His last prior position was as an "X" check airman, and he had been employed at AAL since July 1987. An "X" type check airman worked in the simulator and conducted check rides there and performed line checks as well. Some "X" check airmen were designees.

He was not acquainted with either JAC incident pilots, but had met both. He said AAL did not keep training records so he didn't have access to them. He only knew if training was satisfactorily passed or not. Once a session was completed, records were destroyed. He would not know if a pilot needed help in one area once the training was complete. He could see if a pilot had an extra day of training but would not know what area it was for. AAL did have a remedial training program which started before he became a check airman, and he did not know when it began.

The only way he would be aware of a pilot having an FAA Letter of Investigation or Warning would be if it was his direct responsibility. Violations and letters would be reported to a pilot's direct supervisor, who was the chief pilot at the pilot's base. He would not necessarily be aware that retraining was due to an FAA violation or letter. He was not aware of any FAA action or letter concerning either of the incident pilots, and he was not aware of any training or retraining the incident crew had been required to do before the JAC incident. Following the incident both pilots had been retrained. He was uncertain about all the subject matter of the training, but knew that the training consisted of a 60 to 90 minute talk on stopping performance, going through the charts in the books on the airplane, and then simulator time doing approaches and landings under different abnormal conditions. Both pilots completed the training satisfactorily.

He did not anticipate making any changes to training as a result of the JAC incident, but it was still up for discussion. Regarding seeing pilots fail to deploy the speed brake on landing during training, he said he had hardly seen it at all. Failure of the auto spoilers during landing was not a programmed training event but was left to the discretion of the instructor or check airmen under what was known as a variable event. Regarding training on the use of the B-757 special analysis page for JAC, he said they did not train it specifically but did cover how to use performance charts generally during recurrent ("9" and "18") simulator training sessions. In order to cover the subject of runway contamination in training, they gave pilots a performance problem involving wet/poor conditions at LGA (LaGuardia International Airport) and asked them to figure out landing distance. He provided the names of the incident pilots' supervisors.

He said he had no way of knowing if a pilot was having a recurring problem of the same type since it was assumed a pilot was qualified once he passed a training event, and the record of that event was destroyed. He had met the JAC incident captain once in a classroom and had met both incident pilots during the Flight Incident Review. He supervised 48 to 50 “X” type check airmen, but did not know the exact number of instructors who came under his supervision. B-757 Training was conducted at Dallas and was under AQP (advanced qualification program). He said TR failure on landing was a variable training event which was done at the discretion of the instructor. Sterile cockpit procedures were observed during LOFT (line oriented flight training) and were debriefed then if necessary. CRM training was covered under Human Factors training, which did not come under his umbrella, but it was evaluated in simulator sessions and debriefed if necessary.

Pilots were not required to fly with a check airman into JAC on their initial flight, but the decision about that was made before he was involved in training. He had not heard anyone complain to him directly about this. He did not know who developed the training video but it was the responsibility of Captain Cunningham.

Interview:	**Robert Solloway**
Date/Time:	**February 9, 2011; 1000 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Robert Hendrickson – FAA; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Doug Cotton – AA legal**

During the interview Captain Solloway stated the following:

His current position was Captain B-757/767 and he had been in that position for about 7 years. He was 50 years of age, had been at AAL for 26 ½ years and was currently based at ORD. He had been a check airman on the B-737-800 from 2000-2003, but was not a check airman on the B-757. He had flown with the incident FO approximately 2 months before on a trip from ORD to MIA to ORD, and had flown with him approximately half-a-dozen times altogether.

He said the incident FO was very professional and a great guy, but he did not know him personally. He enjoyed flying with him and no issues came up whatsoever when flying with him.

His understanding of the captain's role with regard to deploying the spoilers was that both pilots were responsible to see that they deploy, but if they did not deploy the captain must manually deploy them. He had never had an instance where the auto spoilers failed to deploy on the line and had never seen anyone miss deploying the spoilers in the simulator. Failure of auto spoilers in the simulator would always be in conjunction with another failure. AAL did not place special emphasis on manual deployment of spoilers if the auto feature failed.

At one time he had flown into JAC on a regular basis, but it had been two years since he had been there last. He had landed at JAC during winter conditions and the concerns were the short runway, high elevation and braking action reports. He had not had a problem stopping but recalled the departure end of the runway was slippery. He had not heard of other flights having difficulty there, except for a UAL (United Airlines) landing a few years ago. He was familiar with the "green chart" for JAC in the performance manual but could not recall too many details. He recalled that a mu reading of 40 was in the "good" range. He did not know the incident captain but could identify him.

He found FO Brann easy going, professional, and relaxed. He had not experienced any emergency or abnormal situations with him. He could express any issues with him necessary. Brann would point out anything wrong the captain might do, but there were no such instances that he could recall. He had not brought up his experiences outside their operation. He flew well, created a good cockpit environment and enjoyed his job. There no complains about him and nothing he should improve on. Although he had spoken to Brann since the incident, they did not discuss the incident.

Training for failure of TR to deploy on landing was not as extensive as the auto speed brake failure to deploy. He could not recall an event where the T/R had failed, but it did not

seem to be given the same emphasis. The call out for the T/R was “No reverse, either the L or R engine.” There was no callout if they did deploy. For spoilers, the PM did call out “deployed.”

When he first went to JAC he flew with a check airman. He had seen the current JAC video and believed it to be very useful. Both were valuable. He did not recall any problems flying with a new FO into JAC.

He had experienced a TR failure on landing. The main issue was to be careful using thrust on the remaining engine. During the landing rollout he did not recall trying to troubleshoot the TR. For auto spoiler actuation he looked for the handle coming back and a sound it made when it came back. There was an EICAS warning and an “Auto Speed Brakes” message. Cues for reverser deployment were the amber REV indications showing they were in transit, then the green REV indicating they were fully deployed.

He felt the current safety environment was very positive at AAL. ASAP was a huge benefit and he would like to see the program continue. Crews were aware of the last part of the runway at JAC being slippery. A report on this subject would be appropriate for a P2 intercompany report. He was aware that last July AA updated their manuals with a section on arming the speed brake for landing, bouncing a landing and then having to use manual speed brakes afterwards. He read the change and knew about it. When he first flew into JAC with a check airman it was prior to 2005. The last time he had watched the JAC video was 2008 or 2009. He would request a check airman to accompany him to JAC if he felt he needed it.

With a potential ground evacuation and the aircraft stopped, the company expected you to seek outside confirmation with ATC or F/A’s, then make a PA: “remain seated.”

Interview:	**Kenneth Andrew Fry**
Date/Time:	**February 14, 2011; 1000 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Ray Duke – APA legal**

During the interview Captain Fry stated the following:

His current position was B-757/767 captain based in ORD, and he had been in this position since June 2005. Prior to that, he was captain on the B-737. He was 55 years of age and had been with AAL since December 1984. He had not ever been a check airman. He last flew with the incident first officer in late November of 2010, and had flown with him several other times. The most recent trip was a three day trip to LAX and DFW and all legs were on the B-757 except one. He considered FO Brann's performance on that last trip to be outstanding. There had been no unusual conditions during the flights with FO Brann.

Regarding flights to JAC, he had flown there about 5 times, but never with FO Brann. His most recent flight to JAC was the day before this interview. Conditions at JAC had been good, a beautiful clear day, and the runway was dry. He had been to JAC in light snow previously but had always had braking conditions reported as good. He had found when flying into JAC that the braking action reports had been true. He had not flown into JAC when landing weight was limited. The last time he had flown to JAC before yesterday was the previous winter. He found that sometimes the taxiways at JAC would have more snow on them than the runway.

He found that FO Brann was open to his inputs, that he would assert himself if necessary, and that he was enjoyable to fly with. They had not had detailed discussions of their experiences flying the B-757, but he found FO Brann to be skillful and he found that that FO Brann's strengths included being professional, running checklists properly, and being above average in proficiency. He knew of no areas where FO Brann could improve. FO Brann was easy-going and no one had complained about him. He knew Captain Kalcevic professionally, not personally, but had never flown with him.

He said that the flight manual stated that in the event of auto spoiler failure to deploy it was the captain's job to manually deploy them. He had seen this failure in simulator training but it was not a regular occurrence. The instructor had discretion about running this scenario. The PM was required to call out if the spoilers did not deploy, and the PM was required at all times to call out when spoilers were deployed. Cues to spoiler deployment were handle movement noticed out of the corner of the eye, a little noise when then handle moved, and a sense of the handle coming back when the hand was placed behind the throttles. He did not believe there were other cues except possibly an EICAS message. He was not sure of the message.

In the event that TR's did not deploy it was the PM's duty to call "no reverse thrust" and specify left or right engine. If deployment was normal there was no callout. In simulator training the instructor had discretion about running this scenario, and it commonly involved failure of one TR to deploy. Cues to TR failure were failure of the engine indications to go from amber to

green, lack of engine noise associated with reverse thrust, and the thrust reverse lever not coming back past the interlock position. There was no procedure to recycle the lever but recycling was a technique used after landing when the reverser failed to stow.

On his first flight into JAC as a captain in 2005 or 2006 he had been accompanied by a check airman. The video was a good refresher but he had not seen it recently and he couldn't comment on how it compared, except to say that a check airman was always better for an initial entry because he could point out things to be aware of.

He had experienced a TR slow to deploy on landing but had held the levers back and the TR did deploy. He had not experienced a failure of ground spoilers to deploy. He had never had an issue with landing weight and had never had to deploy spoilers manually. He was aware that recent guidance in the flight manual addressed the need for manual spoiler deployment following a bounce. He was unsure about the location and function of the reverser isolation light.

Regarding passenger count and weight, he did not calculate the weight himself and was not sure of the exact summer/winter/child weights. He said captains could call load planning directly if needed, but he had not ever done so to verify passenger count or weight. He had done so once to deal with a restricted article. He said the crew would wait for load numbers if they did not come over ACARS (aircraft communications addressing and reporting system). He said Ops Specs were incorporated into AAL manuals and that all limitations and operations were within or safer than Ops Specs. He had never been required to do a manual weight and balance calculation. There was a section in the manual about charters but he would have to refer to it before commenting.

Interview:	**Penny Sue Williamson**
Date/Time:	**February 14, 2011; 1055 EST**
Location:	**Via telephone; various locations**
Present:	**Roger Cox, Katherine Wilson – NTSB; Bob Aaron – Boeing; Rob Fogel – APA (Allied Pilots Association; First Officer)**
Represented by:	**Doug Cotton - AAL legal**

During the interview Ms. Williamson stated the following:

Her current position was Manager of Weight and Balance Planning at AAL, and she had been in this position for about three years. Prior to that, she was a Weight and Balance Senior Technical Specialist. She worked in the Dallas area.

Ms. Williamson reviewed certain figures from the AA 2253 load planning documents, including the weight and balance data provided to the crew on the day of the incident flight at 1419Z, as well as the data provided to the crew known as final close out at 1541Z. The final close out document showed that the flight had 21 "F," or first class passengers, and 154 "Y," or coach passengers. 14 of the 154 coach passengers were shown as children and their number was included in the 154 passenger count. She said the winter adult passenger weight was 195 lbs. and the year-around child passenger weight was 87 lbs. Based on these figures, the total passenger count on AA 2253 was 175 persons. 161 persons were considered to weigh 31,395 lbs (195 lbs each) and 14 persons were considered to weigh 1,218 lbs (87 lbs each). The total passenger weight had been 32,613 lbs, which corresponded to the number shown on the final close out report.

She was not familiar with FAA approved Operations Specification A099, which addressed passenger weights. However, she stated the source of her information on passenger weights was the AAL Weight and Balance Control Manual, which AAL would provide to the NTSB on request.

She did not personally do load planning on JAC flights. She said that it was routine to plan flights to carry loads as close to maximum allowable landing weight as possible. She was not aware of a specific fuel tankering policy at the company.