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Interview Summaries

**OPERATIONAL FACTORS/HUMAN PERFORMANCE
SUPPORT TO THE U.S. ACCREDITED
REPRESENTATIVE**

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A. ACCIDENT

Operator: United Parcel Service (UPS) Flight 6
Location: Dubai, United Arab Emirates
Date: September 3, 2010
Airplane: Boeing 747-400

B. SUMMARY

On September 3, 2010 at about 8:10 pm local time (1610 UTC¹), UPS Flight 6, a Boeing 747-400F (N571UP), crashed while attempting an emergency landing at Dubai International Airport (DXB), Dubai, United Arab Emirates (UAE). The flight had departed from Dubai approximately 45-minutes earlier enroute to Cologne, Germany, and returned after the crew declared an emergency and reported smoke and fire. The airplane impacted inside an Emirati army post,

¹ Coordinated Universal Time

approximately 9 miles from Dubai's international airport. The two flight crew members were fatally injured, there were no ground injuries, and the airplane was destroyed by impact and fire. The investigation is being led by the UAE General Civil Aviation Authority (GCAA).

C. INTERVIEW SUMMARIES

1.0 Interview: Robert Miller, Boeing 747-400 Captain, UPS

Date: September 13, 2010

Location: Via Telephone Call

Time: 11:44 EST² - Transcribed from email received from Dave Tew, Operational Factors Investigator – National Transportation Safety Board (NTSB)

Present was: Dave Tew – NTSB.

During the interview, Captain Miller stated the following:

Captain Miller had been with UPS since April, 1988, and had been on the B747³-400 since the first of the year.

Captain Miller was not aware of any problems or concerns with the cargo on the accident airplane on the leg he was deadheading on. He had offered to do a walk-around on the accident airplane prior to his jumpseat leg. However, the accident captain told him to relax and said they would do a walk-around

The information about concerns with cargo occurred on another flight and airplane. He was the captain on flight 63 from Hong Kong⁴ to Dubai on the 10th when he was notified of hazmat in the airplane positions 7L and 7R plus a position on row 18. The IRO had done the walk-around and noticed boxes that were upside down when they were supposed to be loaded with a certain side up.

On his flight on the 10th on the other aircraft, he contacted the load supervisor who said he would be glad to unload the cargo to fix things, however the load supervisor said it would take about 2 hours to do. The load supervisor said he was concerned that the unloading and reloading might cause damage to the hazmat. Captain Miller decided to fly with the cargo as is, and did several checks on the cargo during the flight. He also said he was prepared to divert if necessary. He did file an electronic "event report" with UPS. He said that was the first time he had any concerns about how the cargo was loaded.

² Eastern Standard Time

³ Boeing 747

⁴ Hong Kong International Airport (HKG)

Captain Miller said he was aware that the accident airplane had previous problems with the #1 pack, but he was not aware of any problems with the pack or anything else during his deadhead/jumpseat leg.

He said UPS did not have a separate container for hazmat as FedEx does – UPS loads it at any pallet position.

He said the B747-400 had walkways on both sides of the cargo bay. He said crew members were trained to walk on both sides of the cargo bay during preflight and inspect the pallets for any problems. He did say that often the pallet would be covered so they could not inspect the cargo too thoroughly.

He said the airplane had different checklists that address different types of smoke events. He said the EICAS⁵ directed them to the correct checklist. He mentioned that one smoke checklist shuts down packs 2 and 3, but leaves #1 running. He said there was a T-handle in the cockpit to pull if all else failed, but there was a warning associated with the T-handle that said pulling it could possibly bring smoke into the cockpit.

He said they did not have full face masks or any other special masks at UPS. They just have the normal oxygen mask and smoke goggles. He had been part of a union effort to have better masks installed to help with smoke events such as the accident – but no luck so far.

[In a follow-up email of 09/13/2010 at 1115 EST, Captain Miller stated the following:

I was thinking about one of your questions and thought my answer needed some clarification. We can walk-around both sides of the main cargo deck when there is an opening in the front or back but there are times when we can only access one side.
Best Regards
Bob Miller]

2.0 Interview: Bruce Anderson, Boeing 747-400 First Officer, UPS

Date: September 29, 2010

Location: Via Telephone Call Received

Time: 1508 EST

Present were: Captain David Lawrence - NTSB; Captain Tom Lange – Boeing

During the interview, F/O⁶ Anderson stated the following:

⁵ Engine Indicating and Crew Alerting System

⁶ First Officer

He stated that was the F/O on the inbound flight from Hong Kong to Dubai prior to UPS 6 on September 3, 2010. He did not remember anyone exiting the cockpit during flight for a restroom/rest break. He did not remember if there was any problem with the O₂⁷ masks or their settings. He did not remember either pilot using the oxygen mask during flight. He did not remember if there were any loading problems out of HKG.

Interview concluded at 1515 EST.

3.0 Interview: Robert Miller, Boeing 747-400 Captain, UPS

Date: September 29, 2010

Location: Via Telephone Call Received

Time: 1510 EST

Present were: Captain David Lawrence – NTSB; Captain Tom Lange – Boeing

During the interview, Captain Miller stated the following:

He was a jumpseater on the inbound flight of UPS 6 from Hong Kong to Dubai. He did not see the inbound crew on UPS 6 from HKG to DXB use their oxygen masks. He restated from an earlier interview with the NTSB that he offered to help with the walk around of the aircraft, but the inbound Captain declined. He said that on the B767, he once had an issue with the O₂ mask where the cup face fell off because of a loose, single attach-point screw. He said he remembered only once when he saw the O₂ mask set to “normal” during a preflight. He was trained on the O₂ mask and the smoke goggle vent during initial training.

He said he was never trained in the use of the cargo fire-fighting equipment (and wand) located on the Main Deck of the B747.

4.0 Interview: Captain Phil Spiker, Assistant Chief Pilot, UPS

Date: October 4, 2010

Location: Via Conference Call

Time: 0800 EST

Present were: Captain David Lawrence - NTSB; Dr. Katherine Wilson – NTSB; Mr. Eric West – Federal Aviation Administration (FAA).

During the interview, Captain Spiker stated the following information:

His name was Phillip William Spiker, and was 62 years old. His date of hire with UPS was October 16, 2000. His title was Assistant Chief Pilot on the B747-400, and he was based in

⁷ Oxygen

Louisville, Kentucky. He began his flight career in the Air Force in 1971 and spent 29 years “on and off” between flying and staff duties, including tanker time, transport time, and executive jet time. He then went directly to UPS where he was hired in as a flight training management pilot Captain on the Boeing 727, and was on the B747-400 implementation team.

He said his total time was 7,500 hours, and about 4,500 of that was PIC⁸ time. He had 450 hours in the B747-400, and about 300 of that was PIC on the B747-400. He was a check airman on the B747-400, and he was dual qualified on the line and in the simulator originally, but no longer conducted simulator training.

He said he knew the captain on UPS 6 from flying his release to the line in December 2009. He did not conduct any other training with the Captain. He believed Martin Henshaw did “some” of the OE⁹ training. He sat in the right seat during the line check with Captain Lampe. He believed it was a single flight, and his recollection was all positive, Captain Lampe had his stuff together, and was a “good man”. He believed the flight went from ANC¹⁰ to SDF¹¹, but did not check the training records prior to the interview.

He said his duties as a check airman included a line check form to fill out, and check of training records. He completed the training report, and confirmed all the paperwork was correct and up to date, and had a “circle S” on the form. He briefed the pilot, and also briefed his duties to act as a good first officer, and explain his role as a check airman, and checked licenses and medicals. He checked his knowledge of systems, and CRM¹². He said the captain would conduct the walk-around. He said he would accompany a student during the walk-around early on. He explained that the “circle s” on the training form indicated that the student was fully trained and satisfactory on a particular item and at a proficient level.

He said his other duties included duties on the side, and particularly coordinating IOE¹³ and line check schedules. He spent 10 days to two weeks “at a stretch” doing those duties exclusively. He did the business plan for his division, and monitored the simulator contracts with UAL and Moffet Field¹⁴, which was a carry-over from the acquisition team. He flew when he was needed and his duties allowed, and it varied a lot. Prior to Dubai, he spent several weeks on the road ferrying aircraft, one of his other duties. He did some “pro flying”, which stood for professional flying, and was displacement of a crewmember allowing him to fly. He flew around 200 hours each year. He sometimes went non-current, and usually was for the required number of landings since he did not get landings when he conducted training. He was trained as a check airman, and it was formally described in what he believed was the FOTM¹⁵.

He said he did not believe they had any emergencies or abnormals during the Lampe line check.

⁸ Pilot In Command

⁹ Operating Experience

¹⁰ Ted Stevens Anchorage International Airport

¹¹ Louisville International-Standiford Field Airport

¹² Crew Resource Management

¹³ Initial Operating Experience

¹⁴ Moffett Federal Airport, California

¹⁵ Flight Operations Training Manual

He said during training, he did not give instruction on the fire-fighting equipment in the main deck cargo compartment, and he did not know if pilots received any instruction on its use. The only specific training he provided for the oxygen mask was for use and techniques on the storage of the mask, and the goggle vents to “make sure they are aware of it”. He said some of the pilots were not aware of the vent. He said the implementation team did their training at Boeing and not UPS, so he was not exactly sure what was taught in the UPS course. He had sat in on the UPS training, but it was “dated” and back during the initial startup of the program.

He said he had “on rare occasions” seen the mask set to “normal” on a preflight. He could only think that the mask was improperly set, and there was no guidance for the pilots to set the mask to normal that he was aware of, and he did not recall ever using the mask in normal himself, though he may have “clicked it” to normal momentarily.

He said the normal oxygen level on the airplane was measured in psi (pounds per square inch), and was 1750 psi to his recollection. He thought a crew should have about 3 hours of oxygen for a descent, or for over-water operations.

He said he had not seen a pilot nor been aware of a pilot switching an oxygen mask to normal.

Regarding PM/PF¹⁶ duties, he said the PF should not be distracted during critical phases of flight. The duties for the PM were based upon what the captain would assign, and included talking on the radios, running the checklist, manipulating the FMC’s¹⁷, and may “spin” the MCP¹⁸, and this would be the “norm”. He said the PF handled the MCP if on autopilot.

He said he had not had any non-normal situations in the actual airplane before, and he had been PM and PF before, but never had anything serious enough to transfer control, so he ran it as the PF remained flying. He said he did not remember if he ever stopped a checklist as the PM to answer a radio call, but said that would be “typical”.

He characterized the workload of the PF when the aircraft was on autopilot as situation dependent, but moderate at most. He said the workload of the PM was also situation dependent based on the non-normal. He said some were straight forward, but the load level went up with a fire onboard, so the workload level would be moderate to high. He said it was possible for the PF to take over some duties from the PM in high workload situations, and the captain had the latitude to make that decision.

He said that the pre-flight of the O2 mask was in Chapter 3 of the AOM¹⁹. There was no provision to pull the mask out to check it at 100%, but that the crew verifies the setting instead, as well as the push-to-talk to hear sound over the speaker. He said the crew could check the lever on the mask to verify that the mask was set to 100%. He said he was “certain to a high degree” that the checklist said to check the O2 mask to 100%, and if it did not he would be “surprised”.

¹⁶ Pilot Monitoring/Pilot Flying

¹⁷ Flight Management Computers

¹⁸ Mode Control Panel

¹⁹ Airplane Operating Manual

He said CRM was a part of the things he checked on a line check, including a briefing before the flight, and that a pilot prioritized during normal and abnormal operations. He said on a line check it was slightly artificial when the line check airman was sitting in the right seat. He said he could perform several line checks, on average 4 per quarter, but it really varied over the course of the year.

He said he had no concerns about performing line checks on pilots based upon a syllabus he had not been trained on.

He said about 20% of the pilots he had comes across were not familiar with the vent switch, but that could be “grossly wrong”, and was not sure it was accurate. He would make sure people were aware of the switch because “it was something worth talking about.”

He said he had no specific recollection of his training event with Captain Lampe, but if there was something that did not go well, he would have remembered it. He did take notes during the check to debrief off of, but he would discard the notes after his debrief. The only time he would hold on to them would be for a student who had problems. It would be abnormal to have notes written directly on the IOE form.

He said he had never had a problem with the flow of oxygen in flight, and there was no procedure to follow if there was no flow to the mask. The only time he had used the oxygen was when the other pilot had been out of his seat, but there was not a written procedure if the oxygen was to fail.

He said he started out in the C141 in the Air Force, and in 1976 he became a check airman on the airplane, and that was where he received his training as a check airman.

He said he had never used a full face mask before, and did not have the occasion to use the full face mask on the two Cargo Lux aircraft that were delivered to UPS.

He said the specific checklist language for the before start checklist was for the oxygen mask to be “set”, and the flows ensured the mask was set to 100%.

He went through recurrent training in February, and the fire fighting drills included putting on a PBE²⁰ and simulating putting out a fire. He said he had used an extinguisher on a live fire in initial training in Louisville. He did not believe he was ever trained on the portable oxygen bottle.

The interview concluded at 0855 EST.

[In a follow-up email of 10/04/2010, 10:18 EST, Captain Spiker stated the following:

²⁰ Personal Breathing Equipment

David - As we discussed in my follow-up phone call this morning, please correct the information provided as follows:

I completed initial training at Boeing early in 2006, along with the rest of our 747-400 implementation team. However, I misspoke when I said we did not complete UPS 747-400 training – all of us completed that training in Denver (United simulators) early in 2007, prior to first aircraft deliveries.

Regards, Phil]

[In a follow-up email of 10/04/2010, 18:07 EST, Captain Spiker stated the following:

David - One more – in reviewing my notes from this morning, believe I said round number flight time in the 747-400 was 450 total, 300 PIC. My guesstimate was off by a bit – should have been 600 total, 450 PIC.

Regards, Phil]

5.0 Interview: John Boyd, Boeing 747-400 Captain, UPS

Date: October 4, 2010

Location: Via Conference Call

Time: 1000 EST

Present were: Captain David Lawrence – NTSB; Dr. Katherine Wilson – NTSB; Mr. Steve Foss – FAA; Captain Martin Hinshaw – Independent Pilots Association (IPA)

During the interview, Captain Boyd stated the following information:

His name was John Raeford Boyd, and he was 47 years old. He was a B747-400 Captain, and his date of hire at UPS was July 31, 1995. He was a simulator instructor on the B747-400, but did not perform any checking events. He had about 11,000 total hours of flight time, and “approximately half” of that was PIC. On the B747-400, he had about 400 hours PIC, and on the “classic” version he had about 3,000 total hours, but only a few hundred hours PIC.

He said he usually sat reserve for several months and worked in the simulator several months. There was no set schedule to fly, and he would bid a line of flying every 3 or 4 months “to keep the hands warm”, and there was no set schedule. It was the individual’s responsibility to maintain currency. He said he had never gone non-current. He said he last flew the line in late spring, possibly May, and it was unusual not to get used while on reserve. He said they had a provision to “purchase” a trip to maintain currency, and was planning on getting some simulator time in the near future.

He had 24.5 years in the military in the C130. He had a lot of instructor time in that airplane. At UPS, he had 7 years on the “classic” B747, five years on the MD²¹-11, and was a simulator instructor for the 15 years he was employed at UPS. He had taught on the “classic”, MD-11, DC-8 and the B747-400. On the B747-400, he had been teaching for a little over 2 years in the simulator, and on the B747 “classic” he taught all three seats for 7 years. He taught all nine sessions in the simulator, and the LOFTs²². The B747 was not taught under AQP²³, but they did do “single-visit” training. On the MD-11, they taught under “full AQP”.

He said he remembered Captain Lampe “extremely well” since they were hired together at UPS, although they had never flown together since their seniority was similar, and he did not recall if he ever had jumpseated with him. He did conduct his initial simulator training on the B747-400. He considered Captain Lampe a “competent aviator” with “very good hands.” He was knowledgeable, professional, and always “overly prepared”. He had good CRM skills, and worked with Gene Showalter in the simulator, and they were the “perfect” crew. He did not have to conduct extra training for Captain Lampe.

He said the smoke/fire/fumes training was introduced in simulator session number 6 with a Hong Kong flight scenario which involved taking off on runway 7R and a climbout to the mid-20s, then introduced a cargo fire on the main deck. The crews were required to run through the checklist, and it forced the flight to an overweight landing back to runway 7R. He said typically the training difficulties he saw with this scenario were “getting it on the ground quick enough”, and “finding a piece of concrete” as soon as possible. He said the scenario was scripted, but if there was extra time in the simulator, he had the latitude to introduce other scenarios. The crews received the fire at about 23,000 feet, and most crews did not level off at 25,000 feet, but he had seen crews do that. Most crews were focused on getting the checklist completed, and that was more important for him to see in the training environment. When at 25,000 feet, most crews would turn around and ask him “has the smoke cleared?” He said he “would assume” that the crews would look for the smoke to dissipate or the fire light to go out.

He said crew members were trained to use the “smoke hood” and to use the fire extinguisher. He had never been trained using a live fire. He had never been trained on the main deck fire extinguishing equipment.

He said the PF duties were to fly the aircraft, and the PM should be talking on the radios and “trying to work the checklist”. If it got too confusing, the PIC had the option of talking to ATC²⁴ and flying the aircraft while the PM ran the checklist. But the standard operating procedure was for the PM to run the checklist and talk on the radios. If the PM was getting a little confused or the situation was getting complex, the PF could jump on the radios as well. He said “he had seen it both ways”. He said if the PF were flying the aircraft and the PM was running the checklist exclusively, it seemed like a more “crisp” way of doing things, based upon his experience. He

²¹ McDonnell Douglas

²² Line Oriented Flight Training

²³ Advanced Qualification Program

²⁴ Air Traffic Control

said the SOP²⁵ was for the PM to run the checklist and talk on the radios. A better situation would be if the crew had use of an IRO²⁶. He said that Ed Faith would be receptive to any suggestions of changes, but he personally had not made any suggestions.

He said the oxygen mask and smoke goggles were trained in the simulator within certain rapid depressurization and fire scenarios. The first time the pilots saw the smoke goggles and mask was during the simulator training. The students were trained on the normal/100% switch during the CBTs²⁷, which were before the simulators. The students were not taught to switch the mask from 100% to normal, they were not taught on the aircraft, nor was there any guidance telling a pilot to do so. He said, in his opinion, there was no time when a pilot would want to switch the mask from 100% to normal.

He said the smoke vent to the goggles was taught only in the CBT because there was nowhere in the simulator syllabus that addressed the vent. The pilots donned the mask and the goggles during the fire scenario in the simulator, but he did not know if the students ever pulled the vent down on the mask to clear the goggles.

He said there was no smoke generation capability in the UPS simulators, and he had never trained in one, and he had never used a full face mask. He said he did not wear glasses, and had never had a problem with donning the smoke goggles. He had witnessed students having difficulties in donning the mask and goggles “just about every time”. He had had to stop the simulator to assist them in the donning of the mask. He said the students had problems when they were wearing glasses and they donned the mask and goggles. He said he had also seen this same donning problem during normal line operations.

He suggested a full-face mask would solve that problem and would be “a more simple way to get the crew oxygen”.

He said the pilots could determine the oxygen quantity during the captain’s preflight flow on the status page. He said they needed around 1400-1500 pounds of pressure. He said that amount of oxygen should give the crews about an hour and a half of oxygen at 100%. Pilots were not taught to set the masks to normal to extend the supply of the oxygen.

He said the main training issue he had observed involved the programming of the FMS²⁸, and was similar on the MD-11. He had also seen occasional difficulties with windshear recovery.

He said he had performed most of his training in the ANC simulator, but did do one class in Denver.

He said there was a walk-around powerpoint video available in the CBTs. There was a quiz following completion of the program, and a certificate was printed out verifying completion of the video. They did not discuss the walkaround in the simulator training.

²⁵ Standard Operating Procedure

²⁶ International Relief Officer

²⁷ Computer Based Training

²⁸ Flight Management System

He said the crews were only taught the walk around O2 bottle during the CBTs.

He said there was no procedure available to address the failure of the crew oxygen system.

He said they trained the smoke evacuation handle in the simulator, and by pulling it there was actually the sound of air from the vent. The students pulled the handle more as a “show and tell”, because in the scenarios they used, the checklists did not guide them to pull the handle, but “in desperation I would try anything; I would even try that.” He was sure the smoke handle was addressed in the CBTs, but did not know about the ground school.

He said that during the smoke scenarios, the crew first attempt to find the source and location of the smoke, which would guide them to a particular checklist. He said that the scenario was similar each time, and the crew would recognize the scenario based on the caution light.

He said he had not failed the pack one during the smoke and fire scenario, but they had talked about this issue prior to the accident.

He said the fire extinguishers on the flight deck were aft of where the pilots sat, and they would have to get out of their seats to get them. One was in the back near the upper deck area to the left when they exited the cockpit.

Regarding CRM, he said he looked for the pilots to remain calm and assertive regardless of the scenario.

He said he did not know where the required documentation went after he completed the records.

He said that if a pilot ran out of oxygen, his next source would logically be the walk-around bottle, and the nearest one would be in the lavatory area.

He said he really liked the setup of AQP because it was more scenario based. He liked the logical setup of the training because it was regimented and scenario-based training and evaluation.

He said the 400 training was a “tight ship”, although any training program “could use changes”.

He clarified that the closest oxygen bottle was to the right of the cockpit as you walked back, and was next to the fire extinguisher. It had a mask with it. He said the cockpit jumpseaters had oxygen masks as well, and they could be used “if the hose was long enough.” He did not know if the hose was long enough.

Regarding the pack switches and the pack one failure, they spoke about the scenario but there were no recommended changes. He said if the smoke source was not in the cockpit, a pilot should not pull the smoke handle. He said they covered those items in the pre-brief.

The students were never directed to the smoke removal checklist, nor were the students ever required to pull the smoke handle in training while they wore the mask and goggles.

He said that based upon what they had heard, they should “probably review some of our checklists”. He said he could not recall the last time they performed a scenario based on a smoke or fire scenario during a recurrent training module in the simulator.

The interview concluded at 1051 EST.

6.0 Interview: Joe Masson, Boeing 747-400 First Officer, UPS

Date: October 4, 2010

Location: Via Conference Call

Time: 1305 EST

Present were: David Lawrence - NTSB; Dr. Katherine Wilson – NTSB; Mr. Steve Foss –FAA

During the interview, Mr. Masson stated the following information:

His name was Joseph Masson, and he was 51 years old. His date of hire with UPS was March of 2002. His title was Ground School Supervisor at UPS on the B747-400. He said he did not fly the B747. He had flown the DC10, and A319 in the past, as well as various military aircraft. He said he had about 6,000 hours of total time, and about 1,800 hours as PIC. He started as a mechanic in the Navy on F4s and T2s before being promoted to P3 flight engineer. He was discharged in 1988 and was hired by United Airlines and became a simulator instructor for United. He taught the 727, DC10 and B747-400. He left United in 1998 to get “recency of experience” and joined Gemini Air cargo flying the DC10. He was furloughed from United after 3 years and was subsequently hired by UPS. He taught the B727, B767/B757, and the B747-400 where he was part of the implementation team.

As the ground school supervisor, he said his duties included assisting in putting the training manuals together more so than the actual instruction of the students. He said he performed some stand up instruction and FBS²⁹ training. He said that included both initial training and recurrent training.

He said he knew Captain Lampe “pretty well”, and had met F/O Bell at the training center. He said he had Captain Lampe for FBS training. He said Captain Lampe was professional and well prepared. He asked good questions and was thoughtful, setting a leadership example for his first officer. He was confident in his task, and when there was a non-normal checklist to be reviewed, he briefed the other pilot with a “well thought out process” when dealing with UPS checklists and procedures.

He said that smoke/fire/fumes training was covered in the pilot instructor manual, and introduced in the CBT. The systems themselves were briefed for about 15-20 minutes during a course

²⁹ Fixed Base Simulator

where one FBS session specifically discussed smoke and fire suppression systems. The fire suppression systems discussed covered the APU, engines, and the cargo in general. There was also a short discussion on the lavatory and crew areas.

He said they reviewed in the briefing the QRH³⁰ regarding certain systems related to smoke/fire/fumes. The smoke evacuation was discussed because crews were interested in where it was located. It was difficult to teach them the handle in the FBS because it was not installed in the FBS. He would show them the approximately location of the handle, and the pilots would learn the actual location when in the simulator. He said there was no “tactile T-handle” in the FBS. He said it was not briefed in the FBS when or when not to pull the handle.

He said that the CBTs provided a systems overview of the smoke/fire/fumes, and was not an operational review. The pilots received their CBTs during initial training, and would conduct recurrent CBTs when they returned each year. The subject matter for the recurrent CBTs was rotated each year.

The use of PBEs was discussed during their emergency training session, and was considered part of ground school but not considered fleet specific. There would be students from different fleets during that portion of the ground school class. He said that for the B747-400, they would show the pilots in their systems manuals the location of the fire bottles. There was one fire bottle located on the main deck, and one in the cockpit. There was also one in the BCF³¹ on the aft bulkhead on the left side. He said it was not part of their brief to teach a pilot to go down to the main deck to fight a fire, but they made the pilots aware that there was a fire bottle down there. He said the pilots were not trained to go down to the main deck to fight a fire if there were only two pilots onboard.

He said the oxygen bottles were also trained in the emergency training class. He said they discussed, as part of normal procedures, to set the oxygen masks to 100%. He said he did not teach the pilots to put the masks to normal, and he taught them to use 100% to “to keep the fumes out of their masks.” He said that training was conducted in their emergency training before they started their FBS training. The smoke goggles were also discussed during their emergency training class. There was some “hands on” training of the emergency equipment like the oxygen masks and regulators. He said there were no masks or goggles available in the FBS trainers, and the first time they would see them would be in the simulator. The vent on the oxygen mask was discussed during emergency training.

He said that UPS covered CRM during ground training. The captain would direct “the situation at hand” during normal and non-normal situations, and there was a preamble at the beginning of the AOM that discussed it.

He said they covered PM and PF duties during non-normal situations. The captain would have to make the decision to continue a flight or divert. “Usually” the non-normal checklist would be performed by the PM. The PF would “delegate” handling the ATC communications to the PM

³⁰ Quick Reference Handbook

³¹ Boeing Cargo Freighter (B747-400 version)

in order to have the PF concentrate on flying the aircraft. There was specific guidance on the PM and PF duties in the AOM and pilot training guide.

He said that turning off the packs during a main deck cargo fire was not discussed since the system turned off two of the packs when the cargo fire system was armed. He said the effected pack switches should match the packs that were shut down. There was no discussion of what would happen if the remaining pack would fail. He was not sure which two packs would shut down, just that the checklist said to turn off the affected packs, and that there should be a maximum of one pack on.

He said that there were no areas where pilots had difficulties with regarding the use of the oxygen masks in his experience, and he had yet had anyone ask him specifically about the masks.

In his flying experience, he said they had a full face mask when he flew ferry flights at United, but never had an opportunity to use one. He had used goggles before when in the Navy, but they were smaller and more restrictive of your peripheral vision. He considered the ones they had at UPS better because they were larger with better left to right vision.

He said he was not type rated on the B747 at United, but received his type rating at UPS through Altheon at Boeing.

He said that the PF could delegate ATC communications to the PM, and if the first officer was flying while the captain was PM, they would still have the PM handle radio calls, and the captain would make the decision regarding task allocation.

He said he taught the general emergency training curriculum. Lithium batteries were not “directly” trained during the general training course. He said “practice and demonstration” involved the “squeeze and sweep” training with the halon bottles, and how to don the masks and the switches on the masks. He said they did not do live fire training at UPS. The emergency training was part of the general subjects training, and they taught both MD-11 and B747 crews in the same class.

He said recurrent training for fire fighting was covered by use of a video and demonstration of the emergency equipment. It was basic training. He said they were not taught how to use the “wand” located on the main deck. The portable oxygen bottles were trained, and they showed the pilots how to use the bottles and the masks. He said one of the limitations of the portable oxygen bottle was that it was good for only about 15 minutes, and they showed them how to don the mask, use the straps, and how to turn it on in emergency training class.

He said “emergency assignment” referred to the captain’s ability to delegate tasks to other crewmembers during a non-normal. He said they did not train anyone on how to combat a main deck cargo fire other than the use of the QRH.

“Toxic fumes and chemical irritants” were taught as dangerous goods and could affect performance. He taught the pilots to get their mask and goggles on at the first sign of fumes.

He said that normal on the oxygen masks was “diluted”, where 100% would force oxygen into their masks at 100%, and normal was a mixture of ambient air and oxygen. The UPS systems manual did not reference how much ambient air was mixed with the oxygen. He said he was not aware of any guidance in their manuals that had a pilot switch his mask to normal instead of 100%.

He said in his experience, he had used his mask on normal in the past when a crewmember left the flight deck. He said that the supernumeraries should have “about 195 minutes” of oxygen available to them, but he did not recall if there was a time listed in their manuals for how long the crew oxygen was available. The crew would look at the status page in the cockpit to know how much oxygen pressure, but their manuals did not show them how much time was available.

He said that in the differences section of the FOTM, the different types of systems were discussed along with the different procedures. Regarding the procedure to fight a main deck fire and to climb or descend to 25,000 feet, he said they did not teach that in the FBS.

He said the emergency position and 100% position on the oxygen mask were different switches, and he did not believe the manuals addressed the emergency position on the mask. He said the “in” position would supply an air/oxygen mix, and at 100% it would supply oxygen on demand. He then clarified that the emergency position supplied 100% oxygen under pressure.

The interview concluded at 1410 EST.

7.0 Interview: Richard Irwin, Boeing 747-400 First Officer, UPS

Date: October 6, 2010

Location: Via Conference Call

Time: 1300 EST

Present were: Captain David Lawrence - NTSB; Dr. Katherine Wilson – NTSB; Mr. Steve Foss, FAA

During the interview, First Officer Irwin stated the following information:

His name was Richard Irwin, and he was 60 years old. His date of hire at UPS was May 11, 2000, and his title was First Officer (F/O) on the Boeing B747-400 based in Anchorage, Alaska. His total flight time was about 15,000 hours and he had about 10,000 hours PIC time. He said he had about 1,000 hours on the B747-400, none of which was PIC time, and about 300 hours on the B747 “classic”

When he graduated from college, he began flight instruction, and then began working for Tenneco in Houston, Texas, where he spent 23 years. While at Tenneco, he flew the Jetstar 2 and the BAC1-11, and Gulfstream II and III. He flew as a FE³² on the B727 when he was hired

³² Flight Engineer

by UPS for 6 months, transitioned to the B747 “classic” as an F/O, then flew the B757 and B767 internationally as an F/O. He then flew the MD-11 internationally as an F/O before becoming an S/O³³ on the DC8. When the age 60 rule changed, he returned to the right seat as an F/O on the B747-400 in ANC.

He said he knew the Captain and First Officer on UPS 6. He had flown with Captain Lampe in the past, but his first time to fly with F/O Bell was on August 26, 2010, when he flew with F/O Bell and Captain Lampe together. He said he joined up with the crew in ANC and flew to Inchon, China, for one leg. He then rejoined the crew in Hong Kong for a deadhead to Dubai the day before the accident.

He said he had flown 2 or 3 trips with Captain Lampe. His impressions were that when he saw Captain Lampe’s name on a trip pairing, he said he knew it would be a “great trip”, and he looked forward to the trip. He said Captain Lampe was very professional, easy to get along with, and his performance was “by UPS procedures”. He said Captain Lampe was a “Captain’s captain”, and a real pleasure. He said he was consistent each time he flew with him.

He said Captain Lampe’s CRM skills were excellent, and he was not just saying that. He said on their trip, he was performing the F/O duties. Captain Lampe briefed both he and F/O Bell together since F/O Bell was consolidating his flying time since he had just finished training. He said it was a good brief, and he felt very comfortable flying with Captain Lampe.

He said while he flew with Captain Lampe, there were no non-normals that came up during the trip. He said it was extremely difficult to speak about Captain Lampe since he got to know Captain Lampe through conversations about family and vacations, and he got to know him better through their conversations. He said he also got to speak with F/O Bell better, and the accident affected him more since he had gotten to know both pilots better. He said that neither pilot mentioned fatigue, health or personal problems.

He said that he did not recall seeing either pilot wear an oxygen mask on their final leg together, or the previous leg they flew together.

He said they were trained on the oxygen masks and goggles during ground and simulator training. He said he could not remember if he had been trained specifically on the goggle vent on the oxygen mask.

He said he had been trained on the emergency equipment, including the PBEs and life vests during recurrent. He said it was “show and tell” type training, and they donned the PBE and used the fire extinguisher as well. The last time they performed this training, it was done to a live fire. He said he did not remember if he had been trained on the “wand” that was located on the main deck.

Regarding PM/PF duties, he said the duties of the pilot monitoring during a non-normal was to include watching what the pilot flying was doing, but it depended upon the situation. He said the

³³ Second Officer

PM would handle the checklist, handle the radios, and handle the FMS inputs. He said the PF would handle the MCP if the aircraft was on autopilot.

He said he had never had a non-normal event during his career at UPS.

He said his opinion of the safety culture at UPS was they were “very safety conscious,” as were the crews at UPS. They could always improve on situations, but in terms of this accident, he did not know. He said he had not flown since the accident, and he was waiting to find out what came out. He said he had heard from the GCAA about radio communication problems with Bahrain, and he wondered if having a third crewmember on board would have been better.

He said that UPS crews were not trained to go down to the main deck to fight a fire in flight.

When asked about the labor-management relations at UPS entering the cockpit, he said “that particular trip will stick out in my mind” because there was no labor issue related conversation like he had seen before. He said Captain Lampe was a “very positive” person.

He said he tried to keep the talk of furloughs out of the cockpit because he considered himself a “positive” person, unlike the current generation.

He said he knew of no issues with the cargo from the time he left ANC with Captain Lampe and F/O Bell on the 26th of August to the time he left them at the hotel in Dubai.

He said he had no non-normals with Captain Lampe on any of his previous flights. He said F/O Bell was a good pilot, and he liked him and considered him a “pleasure to fly with.”

He said the procedure to set the oxygen mask was to set it to 100% during the cockpit setup. He said “you” would set the mask to normal when “you were just flying along with someone out of the seat”, but normally it would be set to 100%.

He said he received his B747-400 training in Denver, and considered the training there good with no problems.

He said he had never had to don an oxygen mask or smoke goggles during a non-normal event in flight.

He said if there was an issue with the cargo when he was flying on the B747 “classic”, and he was flying as an IRO, he would walk along the cargo deck to check the cargo when he went downstairs to shut the door. He said “other than looking at the cargo”, there was not much that would come from that.

He clarified that the airplane that he flew down from Hong Kong to Dubai the day before the accident was not the accident airplane.

He said he could not recall training on the B747 “classic” that would have the crew go down to the main deck and fight a fire.

He said in the past he had performed a preflight on an oxygen mask when the mask was set to normal instead of 100%.

The interview concluded at 1352 EST.

8.0 Interview: Larry Ortkiese, Principle Operations Inspector (POI), FAA

Date: October 7, 2010

Location: Via Conference Call

Time: 1000 EST

Present were: Captain David Lawrence - NTSB; Dr. Katherine Wilson – NTSB; Mr. Steve Foss –FAA; Captain Martin Hinshaw –IPA

Mr. Ortkiese was represented by Mr. Brad Preamble, FAA Counsel.

During the interview, Mr. Ortkiese stated the following:

His name was Larry Ortkiese, and he was 59 years old. His title was Supervisory Principle Operations Inspector on the UPS CMO³⁴. He began flying with 27 years in the Air Force and came to the FAA in 2000 and was an inspector in the SDF office, then became the inspector on the Comair certificate, then DHL and Astair, and had been in the present position for 4-5 years. The previous POI was Rich Kelly, who had since retired. He flew as an instructor on the T38 in the Air Force, flew the B52 for 6 years, and then the F4, then the C130 and C12. He had not been current on any aircraft for the last several years, and had not trained on any aircraft in the UPS fleet, though he was typed on the A300. He had sat through “quite a bit” of the training at UPS, particularly for the AQP development, but mainly relied “pretty heavily” on the APMs³⁵ to oversee the training. It had been about 3 years since he had sat through any of the training at UPS.

His role as the POI was half supervisory with 24 employees, and the other half administering the certificate. He said all the programs from ASAP³⁶ to AQP fall under him, as well as the leave and budgeting of employees. He characterized his workload as “pretty high”.

He said he primarily would liaison with Pete Laurentz and Karen Lee at UPS, and to a lesser extent the VP³⁷. He was in contact with Mr. Laurentz “regularly and routinely”. He said the size of the UPS certificate was too large to do any other duties. 70% of UPS flying was international, so it was a large certificate to "survail."

³⁴ Certificate Management Office

³⁵ Aircrew Program Managers

³⁶ Aviation Safety Action Program

³⁷ Vice President

He learned about UPS 6 from Mr. Laurentz about the aircraft giving AHM indications of smoke and fire while the event was occurring. He believed the aircraft took off around 12:30, and flew a little over 40 minutes. His initial response was to take down information and request updates. In the days after the accident, he didn't do a lot since there was some "difficulties agency-wise between the NTSB and the FAA" and his "access to information was zero" until he met with Mr. English at the NTSB and "the tap was turned back on", and "FAA was denied access to information and the company was told not to talk with us." He said they were tasked to look at situations concerning all B747's and to get the information out to everybody.

He did not know the crew of UPS 6, but he believed the former and current APMs knew them. He said Bill King, who checked most of the current crew members, knew them, and he understood they were "very good" with no training issues. He had reviewed both pilot training records, and considered them "above the norm".

He said UPS had AQP, but not on the B747-400 simply because they had not finished the development, but they were beginning small groups trials in November 2010. He said he knew of no funding issues that delayed AQP on the B747.

He said he did not do line observations or simulator observations, but he would jumpseat on UPS occasionally. He said his office was in Louisville. He was in contact with the line crews at UPS through his local guard unit, with about 100 pilots he knew well and gave checkrides through the military, but that had been several years ago, and he ran into them socially. He said they did not share any concerns, and for the most part spoke well of the company.

He said when UPS announced their furloughs, they reviewed their handbook regarding labor relations and opened a risk management assessment, and then assigned "CONDR"s³⁸ to observe that facet. He said he had not had any concerns on the issue. He had talked with the union president, considered him nice, but he left him with a few concerns regarding union concerns and issues. One issue was a crew rest issue on the MD-11 based upon the trip construction and crew rest, and UPS split the trip up.

He said "CONDR" was a part of the ATOS³⁹ system under risk management, and assigned a risk level and worked to address that risk. Eventually they reached a point where the risk was no longer applicable. He tasked a crew member to ride on a particular flight or leg to look at specific items to be viewed on that leg. Examples would be altitude awareness and crew communications, as well as conversations about labor issues. He said he thought they would find issues, but to date had not.

He said he had not heard of any training issues on the B747-400, and originally when Bill King was on the certificate initially, and they stayed close to the Boeing checklist procedures and training since they were going to be brought into AQP. He said the B747-400 training "didn't reside in the U.S." but was located in Anchorage. He did not remember if Boeing was brought over to assist in the training development of the B747 program.

³⁸ Constructive Operational Dynamic Reports

³⁹ Air Transportation Oversight System

He said he had observed the UPS fire extinguishing training during indoctrination, and saw UPS do live-fire training while the crews would don the PBE hood. He also saw their evacuation training, and it was observed at the Louisville training facility.

He said Advisory Circulars and related information were disseminated through the UPS compliance department. On important issues he would sit down with related personnel at UPS. He said they would share pertinent NTSB recommendations when they came out, and considered UPS “proactive”.

He said he was familiar with the PM and PF duties, but could not describe it accurately. He said they had gone through a period awhile back “that was not well laid out”, and they made some changes based upon those issues. He said the issue was related to change of control because it was not well standardized. He said UPS would add an aircraft, and it would “become one airline, then would add another aircraft, and become two airlines.” He said it was a “big” issue, but not as much today, but was “still out there”. He said that all the fleets “pretty much” were the same regarding pilot monitoring and pilot flying duties. When asked about the pilot monitoring duties handling the checklist, FMS inputs, ATC communications, and MCP inputs, he said it was similar across the fleets. He personally liked the pilot flying “to be devoted to that.” He said there was nothing wrong with the PM handling the FMS or handling ATC communications. He was asked if he was familiar with the NTSB recommendation regarding the PM only doing checklist items and not multi-tasking with ATC communications, and he said he had read it but it had been awhile ago.

He said with the advent of the labor relations RMP⁴⁰, he would consider that UPS was under increased surveillance.

He considered UPS a “pretty good safety culture”, and UPS had a good safety record. They did not have a LOSA⁴¹, but it had been discussed, but the hold-up was the labor contract. They had a FOQA⁴² program, and it was doing “quite well” with good coverage. He said they had QARs⁴³ on all the fleets, but not on all the aircraft. He said they had a very “robust” ASAP program. It had some growing pains, but was working well now. He said Phil Daugherty was the FAA representative on the ERC⁴⁴.

He said they had made numerous recommendations, and gave an example of Volume 1 of the AQP where they recommended blending FOQA and ASAP data. Regarding the B747-400, he said he considered it “one of our safer fleet types” due to the high time and high experience people on the start up, and did not have any issues with the fleet.

He said he could not remember providing any guidance on changes to the B747-400 program.

⁴⁰ Risk Management Process

⁴¹ Line Operations Safety Audit

⁴² Flight Operations Quality Assurance

⁴³ Quick Access Recorders

⁴⁴ Event Review Committee

He said he had responsibilities over the UPS manuals, but he delegated oversight of the training manuals to his APMs. He did monitor the pass fail rates, and the data was reviewed quarterly. They were notified when a failure occurred, and an FAA inspector would be there on the recheck. He said the APM and Assistant APM went through the pilot training program and check airman training, and they were constantly in the simulator. He said he was provided feedback through the CONDR program and also when they were in the simulator doing observations.

He said he was overseen by the Region and AFS-200⁴⁵ in DC.

He said any concerns he had were cultural and conceptive issues, and in the areas of standardization.

When asked if an operator could amend a QRH to their own satisfaction, he said he could not remember what the handbook said on it, but said when he first arrived there were differences in some checklists. He said he felt the manufacturer's recommended checklist was recommended "for a reason", and in this case the B747 checklist resembled the Boeing checklist "pretty closely". He would not expect to see a difference in the AFM⁴⁶ procedure and the current checklist, and would call to the ACO⁴⁷ office to ask "why after I talked with Boeing."

The interview concluded at 1053 EST.

9.0 Interview: Bob Askins, Front Line Manager, UPS CMO, Ops Team B, FAA

Date: October 7, 2010

Location: Via Conference Call

Time: 1115 EST

Present were: Captain David Lawrence - NTSB; Dr. Katherine Wilson – NTSB; Mr. Steve Foss – FAA; Captain Martin Hinshaw –IPA

Mr. Askins was represented by Mr. Brad Preamble, FAA Counsel.

During the interview, Mr. Askins stated the following:

His name was Robert D. Askins, and he was 60 years old. His title was Front Line Manager, UPS CMO, Ops Team B. He said his previous position was B747-400 APM. He left the position when asked by the POI, and had been in his current position for a year and three months. He was the APM on the B747-400 for 18 months. Bill King was the initial APM on the B747-400 when it was brought on the certificate.

⁴⁵ FAA Air Transportation Division

⁴⁶ Aircraft Flight Manual

⁴⁷ Aircraft Certification Office

He was with the Air Force ROTC⁴⁸ and graduated in 1972. He flew the F4 in Europe and as an instructor. He left active duty in 1980 and flew for Delta Airlines, and ended up as a B767 Check Airman. He started with the FAA in 2006. He did some light plane flying, but no other flying. He was typed on the B747-400, and ground trained in Louisville, and simulator trained in ANC. He said the instructors were all UPS, and it was one of the best training programs he had ever attended, and was impressed. He was not a big fan of CBT training, and said it was adequate, but the instructors were “top rate”. He initially was assigned the B757/B767 training, and thought that was done well. He said he had seen the full initial syllabus on the B747, as well as several recurrent training events. He considered it a “full” recurrent. He said he used to get 4 hours of flying under the 40/40 program every quarter, but not anymore. The last time he flew the simulator was in April of this year.

He said they conducted scenario based training during recurrent, but couldn't remember what it was, but knew the last recurrent was not a smoke/fire/fumes scenario. The last time he saw a smoke/fire/fumes scenario was in initial training, and he did not recall if it had been introduced in any other recurrent cycles.

He said his duties as APM were aligned with the handbook. He looked at MELs⁴⁹, checklist revisions, proving runs. He also did Mongolian route approval runs. He was the APM when UPS brought the two Cargo Lux aircraft onboard, and in his opinion the full face masks were pulled out by maintenance due to their susceptibility to scratching of the lens, and they were replaced with the goggle sets. He did not have input on that decision.

He did not know either pilot on UPS 6. He learned about the accident while on his way home, and was contacted by the POI. He said they started collecting data, and he was appointed as the contact with the Regional office. He said he did not review the pilot training records, and he did not know of any training issues while he was on the 400. He said the B747-400 training was “the best of all the fleets”, and they thought they were going to be AQP. He said “whatever Boeing put down in their training manuals, that was how we were going to teach it.” He said he did follow up on the fact that the failure rate was a little low based upon his experience, and he brought that up to Doug Menish, but was told that since there was extra time built into the training program this would be normal. He spent a lot of time in ANC overseeing the program, and he was “impressed” with the program.

He said they were going through small group tryouts next month for AQP, and did not consider it a delayed program. It was a little behind, but not much.

He said he had observed the emergency training program during indoctrination, including the life rafts, firing the bottles, escape ropes, and location of oxygen bottles. He said there was live-fire training. He said he was trained on the masks and goggles, and could not remember if they were briefed on the smoke removal portion of the goggles, and they spent most of their time on the escape portion from the aircraft because it was so unique.

⁴⁸ Reserve Officers' Training Corps

⁴⁹ Minimum Equipment List

He said that he was trained on the emergency equipment on the main deck, but was never taught about the wand on the main deck. He had never seen the wand trained.

He said the portable oxygen was trained in the airplane general CBT. The cockpit oxygen masks were trained not during the ground school, but during the indoctrination. He did not remember if the masks and goggles were trained in the simulator. He said the preflight of the masks included being at 100%, testing the flow system, and a sound across the speaker. He said the masks could be set to normal to conserve oxygen, but did not know where that guidance would be located. He had never seen a pilot set a mask to normal.

He said he had observed training at least one week each month, and observed both FBT⁵⁰ and normal training, as well as checking events. He did see a weakness on single engine rudder control, but did not see anything else that stood out.

He said he was familiar with the PM/PF duties at UPS. He said it was similar to what he had seen in his past career, except for setting the altitude window. He asked UPS to change that procedure, but they did not want to change it, and he told them “you are the only guys doing this.” He brought it up again with Don Holbeck, who was another former Delta pilot, when he was on the B747-400 program. In his opinion, the pilot flying should be attuned to where the aircraft was going, and should set the altitude and be confirmed by the pilot monitoring. He said the pilot monitoring was in charge of ATC communications, the autopilot functions if the aircraft was hand-flown, and the FMS inputs, as well as running the checklists. He said this was the standard operating procedure. He said 99% of the time it worked well. In the past he would brief his F/Os that in an emergency situation, he would take control of the aircraft and handle the radios, and the F/O would handle the checklist so as not to interrupt the flow of the checklist. He said that was not what UPS did.

He said he did not mention that to Doug Menish because he was aware that it was the UPS philosophy and the way they did things. He was not aware of the NTSB safety recommendation regarding the workload management for the pilot monitoring following the American Airlines engine fire in 2007.

He said he mainly spoke with the Chief Pilot at UPS, and considered him “very responsive”.

He said UPS had never done a LOSA, and had not heard of any plans for one. They had a FOQA and ASAP program, and they had a quarterly brief to discuss the data. He did not consider the programs “robust”, but were “energetic” in their analysis, but would not consider it “the model of the industry.” One area they identified through these programs was an issue of unstable approaches into Albuquerque, New Mexico, on the Airbus fleet.

He said he knew of no recurring issue on the B747-400, and thought it was leading a “charmed life”, and only recalled two events that required action. One was from a pilot taxiing with the center gear inactive, and on power up they departed the runway. The captain received additional training, and that scenario was built into the training syllabus. The other event was from a check

⁵⁰ Fixed Base Trainer

airman who forgot to set the flaps on takeoff. That caused some difficulty with the company, but they pulled him from the line for 6 months. He knew of no other incidents or concerns.

He said he had a smoke scenario during initial training, and he had pulled the smoke evacuation handle in the simulator. He could not remember if he had to level off at 25,000 feet on that scenario.

He characterized the safety culture at UPS as a company that acknowledged they were a worldwide cargo company. If pressed, they would weigh the cost of a system based upon the increase in safety. He recounted that the B747 was delivered with an EFB⁵¹, and that unit was removed as a cost decision.

He said he was never a party to any discussions about installing an EVAS⁵² system, nor was it ever addressed.

He said that as APM, the majority of his time was spent with paperwork and complying with the handbook, in addition to recording information and manual and MEL changes. He did not have an assistant APM. Bill King was a lot of help since he was also type rated in the B747-400.

He said that the UPS CRM training was weaker than what he knew at Delta, they placed emphasis on it, but it still needed some work. He said the current inspectors emphasized it more now. He said it was a tough program “to get 100% out of” because captains want to be captains, and it needed to be practiced in every facet of the operation and flight, but saw an upward trend at UPS.

He saw no labor issues “intense enough” to look at while he was the APM.

He said it was a challenge overseeing the fleet in ANC while he was based in Louisville. With travel days, he usually only got a day and a half with each inspector. He solved this by going to ANC for 10 day stretches, but considered it an issue, and “it was what it is.” He had a discussion 6 weeks ago with a divisional manager, and they spoke about the money it took to send an inspector to ANC, and they were talking about the possibility of a remote location for the B747 and MD-11 inspectors.

He said if there was a request for a checklist change, he would discuss it with Bill King, as well as the chief pilot, and generally had a face to face meeting. An example was getting an EICAS message after start, where Boeing considered one of these messages not unsafe to flight after start, and they eventually approved this change to the Boeing version for the after start checklist.

He said UPS trained threat and error management, and had the “swiss cheese” model in all the briefing rooms. They checked on pilot errors, and the errors were not exactly built into the scenario.

⁵¹ Electronic Flight Bag

⁵² Emergency Vision Assurance System

He said that he considered the Boeing checklist “the holy grail”, and he would be hard pressed to use something different than what was prescribed in the Boeing checklist. He certainly could entertain a difference from the Boeing checklist after consultations with the ACO.

He said he did do some recent observations of the Denver simulator training and the United Airlines simulators. He noticed a few minor differences in the United simulator, mainly with the autobrake switch location. He said they had run a full initial at United, but he did not know if it had the smoke evacuation handle.

He said the B747-400 instructors were incorporating TEM⁵³ in the training even though it was not an AQP program, but did not know where it was introduced.

The interview concluded at 1225 EST.

10.0 Interview: Mike Bell, Aircrew Program Manager, UPS CMO, FAA

Date: October 7, 2010

Location: Via Conference Call

Time: 1300 EST

Present were: Captain David Lawrence - NTSB; Dr. Katherine Wilson – NTSB; Mr. Steve Foss –FAA; Captain Martin Hinshaw – IPA

Mr. Bell was represented by Mr. Brad Preamble, FAA Counsel.

In the interview, Mr. Bell stated the following:

His name was David Michael Bell, and he was 60 years old. He said his title was B747-400 Aircrew Program Manager for UPS CMO in Louisville. He was also the one of the “technical experts” for the AQP development. He began his career flying T47s in the Air Force, then went to the C5 for 11 years as a crewmember and chief pilot, and then flew for 14 years at ATA Airlines as a B757 Captain for 10 years after spending 2 years as a F/O on the L1011 and the B757. He joined the FAA 2 years ago after ATA⁵⁴ shutdown. At the FAA, he was on the B757 program for UPS before serving on the B747 program, and was type rated on the B747-400. He received his training on the B747-400 at UPS. He did not currently fly. He finished B747-400 training in August of this year and had not attended a recurrent training program. He said he observed a training module about a month and a half ago, and it was lesson 7 for that crew. He also performed an enroute inspection to ANC and back.

Since May of this year, he had made 4 or 5 trips to ANC for observation work. He said the challenge was the separation of ANC and his office in Louisville. He said the FAA may do a remote sighting or TDY⁵⁵ basing in the future.

⁵³ Threat and Error Management

⁵⁴ American Trans Air Airlines

⁵⁵ Temporary Duty

He did not have an assistant APM assigned to him, but worked with Bill King, the Assistant POI. He characterized his workload as not “excessive”, but there were plenty of things to keep him busy. When he made a trip to ANC, he would fly up on Monday and return on Thursday, but it varied. He said he flew in the cockpit until cruise flight, and then would go back to the back to get work done.

He said he did not know the crew on UPS 6. He had not looked at their training records, and had not received any feedback on the crew other than the captain was a “nice individual”. He was informed about the accident from the POI, and assisted with materials location and information collection. He said he looked at the UPS checklist for the cargo fire and compared it to the Boeing checklist, and they matched “verbatim”, and was easier to read than the Boeing checklist. They tried to look at the training records, and looked at a quick print out and quickly scanned it for currency and initial training. He noticed the captain had been on the B747 classic previously, and that the F/O was relatively new on the aircraft.

He had not specifically asked UPS crews about their impression of the training program. He said the pilots had not brought up anything about labor management issues as well.

He said he finished reviewing Volume 7 of the AQP program, and would not categorize the development as “slow” since there were other manuals that required approval first.

He said he had observed the B747-400 emergency equipment session during initial training in ANC. He said live fire training was not performed since it was only required for new hire training and not transition training. He said he learned about the O2 masks and goggles from videos or powerpoint presentations during CBT training, and used the goggles and mask in simulator training. The scenario was a cargo fire in lesson 6 in initial training, and he also donned the mask during the loss of pressurization scenario. He said he already knew how to use the vent, but the goggle vent was discussed during a briefing, but did not know if the vent was specifically addressed in the syllabus.

He said the smoke handle was taught in the systems training, as well as during one of the simulator sessions. He said both pilots had the opportunity to pull the handle, but they were never driven to pull the handle by the checklist. He did not remember what altitude the smoke scenario in the simulator occurred at, and did not remember if they had leveled off at 25,000 feet. He said he in his opinion, the purpose of leveling off at 25,000 was to starve the fire of oxygen, but if he could get down in a reasonable time based on where the airport was, he probably would not level off, but it would depend on several factors and depend on the situation.

He said he was aware of the pilot monitoring duties which included all the “heads down” items and “backing up the pilot flying”. He said the pilot monitoring would set the altitude in the MCP. His duties would be to run the checklist and maintain the communications. He said there was a “caveat” for the captain to tell the pilot flying to handle the altitude as necessary. He said “the checklist takes precedence” in a non-normal situation. He said the other duties can be handled by whoever was appropriate. He said it was “possible” that the PM would be handling

multiple duties, including the checklist. In his “past life”, he would brief that the pilot flying would handle all the duties, and the pilot monitoring only would run the checklist.

He said he mostly spoke with the “folks in the training area” at UPS, as well as the fleet chief pilot. He said that he did not know how Advisory Circulars were disseminated at UPS, but believed they had an internal department for those items.

He said UPS did not have a LOSA program, and believed there was one in the works, and it had been in the works. He said the ASAP program “seemed pretty good”, and he had sat in on ASAP meetings early on in his career. He said it seemed pretty straightforward. He said nothing had been specifically brought to his attention regarding the data on the B747-400 program. Regarding trends, they received information at their quarterly meetings and discussed the interventions that were made. He said nothing “specifically jumps out at me” regarding the trends he had seen.

He said the only significant change he had seen was the introduction of two Cargo Lux aircraft, one of which was on line. He said he did not know if the aircraft were delivered with full face O2 masks, but they all had masks and goggle sets. He said, in his opinion and from a safety standpoint, “for the worst case scenario”, he would rather have a full face oxygen mask.

When asked about the safety culture at UPS, he said he had not seen anything negative from a safety culture standpoint on the B747-400 fleet. He said UPS met the regulatory requirements, and in some cases exceeded them.

He said the majority of his time was spent managing the 30 check airmen, 5 of whom were APDs⁵⁶. He said 10% of his time was spent on check airmen duties and certificate actions by the APDs. He said about 40-50% of his spent time on manuals and training program items, as well as fielding questions from UPS on related issues.

He said his objective was to get to ANC at least once each month for observations. He said since it was the end of the fiscal year, and money was tight, he would likely not get to ANC in October 2010. He would be traveling for AQP observations when able, but tried to get to ANC once each month to each 6 weeks. He said he had heard about the possibility of transitioning the B747 office to ANC.

He said he had reviewed the AOM and systems manual bulletins associated with the introduction of the Cargo Lux aircraft, as well as the Volume 7 for the AQP program on the B747-400. He said there was a checklist revision related to the Cargo Lux aircraft.

He said UPS trained CRM, and used the threat and error model, and had incorporated it into their training. He said threat and error management had been introduced on the B747-400 training program, and there were posters in the training rooms in both ANC and Louisville. It was incorporated throughout the B747-400 training, as well as their instructor training for facilitated debriefs. He said the UPS threat and error management program was “as good as or better” than any program he had been in before.

⁵⁶ Aircrew Program Designees

He said he communicated with the ANC training facility weekly by phone or email.

He said he had not heard of any concerns about the B747-400 program when he began as APM.

He said he would receive a notification report on passed and failed training events, and would also receive a report from the APDs on failed events. He said he observed the simulator 3 weeks ago, and he looked at the lesson to ensure the crews were being trained based upon the manuals.

He had “not really” done any increase surveillance of the company since the accident since they had not received the report on the accident. He said he had gone back and looked at the checklists and manuals to see “if something jumped out at me”, and had not seen anything.

He said it was “luck of the draw” as to which training sessions he would be able to observe, based upon when he was able to go to ANC. He said he had not observed a smoke/fire/fumes training session yet.

He said, in his opinion, there was “nothing definitive” about the advantages or disadvantages of starting an AQP program on a new fleet. He said that he knew of no studies on the topic, and it was the choice of the carrier as to whether a new aircraft was brought on line under AQP or under 121. He said that the AQP program would require more work to be brought up on line than a traditional program because 121 was already written, and AQP would need the manuals to be written.

He said he had no reason to believe that the way the UPS Main Deck Fire checklist was written “wasn’t the correct way to do that”. He said they could not go out and make checklist revisions without “a lot more information”, and he had not questioned that checklist.

He said he was not aware of the difference in the UPS Fire Main Deck checklist and the AFM version, and noticed that the UPS checklist mirrored the Boeing checklist. He said he was on a tele-conference several weeks ago regarding UPS trying to get a change in the checklist, but did not know anything more on it.

He said the APDs were chosen by UPS based on experience on the airplanes, and he would “vet them based upon 8900.” He said the decision by UPS to only allow a management pilot to sign off an OE was an internal UPS item, and he “tried to distance himself” from those issues.

He said he noticed no data trends on smoke/fire/fumes for the B747-400.

Interview concluded at 1402 EST.

11.0 Interview: John Morris, Boeing 747-400 Captain, UPS

Date: October 12, 2010

Location: Via Telephone Call Received

Time: 1500 EST

Present were: Captain David Lawrence - NTSB; Dr. Katherine Wilson – NTSB

During the interview, Captain Morris stated the following information:

His name was John Mark Morris, and he was 64 years old. His title was Captain on the Boeing B747-400 at UPS. His total time was about 13,000 hours, and “most” of that time was PIC. On the B747-400, he said he had less than 1,000 hours, but more than 500 hours, and he previously flew the B757 and B767. Before joining UPS, he flew the DC8 at Orion Air.

He said he conducted a PT⁵⁷ event with Captain Lampe on June 27, 2010, and the simulator instructor was John Boyd. He said he flew the simulator first from the left seat, and then switched seats with Captain Lampe halfway through the session. He said that UPS “frequently” conducted PT training events with two Captains.

He said he had no recollection of the event, and was surprised when Tony Ford at UPS contacted him about the interview request. He recalled no particulars of the event, but stated “by inference” that it would mean Captain Lampe was “prepared and proficient”.

He did not recall any specific scenarios during the training event, but remembered that they performed stalls, and steep turns. He said the event included a majority of abnormal approach profiles and engine failures. He did not remember if they addressed any smoke/fire/fumes training, and he could not remember the last time he saw those items in training. He thought it was during initial training.

He said he remembered that the smoke handle was covered in previous training, but did not recall if he was trained on fighting a main deck fire by home study or during a simulator session.

He considered the UPS CRM “uniformly excellent” and “ahead of the industry”. He was aware that some airlines were emphasizing CRM “by hearsay” of other programs, and said UPS “was an early innovator” of CRM.

He said the overall training on the B747-400 was “excellent”, and the only “problematic” item was the ability to fly as frequently as necessary due to overstaffing of the aircraft, which led to a lack of flying opportunities.

He said he flew fewer than 300 hours to date this year. There used to be a process for job sharing to increase flying opportunities, but that program was no longer in effect. He said that UPS was staffed for a larger fleet, but that they had stopped deliveries. He recounted a specific trip where he had to deadhead from Louisville to Cologne, had a layover, then worked one leg, then deadhead back to Anchorage. He said a “lack of airframes leads to a lack of hands on flying,” but they had not reached a point for a need to “buy” trips for proficiency.

He said the pilot group at UPS was “hungry” for information regarding the UPS 6 accident.

⁵⁷ Proficiency Training

Interview concluded at 1530 EST.

12.0 Interview: Cynthia Dorene Lampe, wife of Captain Lampe

Date: October 13, 2010

Location: Lampe residence, Louisville, KY

Time: 0910 EST

Present were: Dr. Katherine Wilson – NTSB; Captain David Lawrence – NTSB.

In the interview, Mrs. Lampe stated the following:

She met Captain Lampe in 1997. He had told her that he wanted to be a pilot since he was 6 years old. Prior to UPS, he flew for US Airways and also commuters.

She said Captain Lampe was family and church oriented, and was friendly, outgoing, likeable and funny. He was also a perfectionist.

Captain Lampe had a crash pad in ANC that he shared with other pilots. He departed for a trip on August 25, 2010, and did not return prior to the accident. She was not aware of any issues he had resting at the crash pad in ANC and said he never complained about that. He had a car in ANC. She was not sure of the crash pad's location in relation to the airport.

Mrs. Lampe last spoke to him on the evening of Thursday, September 2, 2010. She could not recall exactly what he, but they spoke for about 45 minutes. She recalled that he asked her questions about her running training and she thought he said he had gone to dinner. He told her that he was going to Cologne, Germany, and he would have a layover there where they could talk a lot. She said he was looking forward to coming home and that they would play tennis together. He was in a very good mood. When she talked with Captain Lampe, they used Skype and did not communicate via cell phone or the hotel phone.

He did not mention any concerns about the trip.

He did not mention any problems about sleeping or the hotel he was staying at.

When Captain Lampe was not flying, she said they were usually in bed by 2300. He would not stay up to read, but the lights were out and she thought he would go right to sleep. He would awake about 0630 to get the kids ready for school. She said he would not feel rested immediately after a trip as he was adjusting to the time change but within a week of being home, he would feel rested. When he was adjusted to the time change, he would need about 7-8 hours of sleep to feel rested.

If he needed a nap, she said Captain Lampe would nap during the day, but he did not nap every day. He did not mention napping to her during the trip in which the accident occurred. He did

not have sleep apnea and she said there was not anything that interrupted his sleep. She thought he was more of an evening person.

She did not recall Captain Lampe's specific activities during the 18 day break he had prior to departing on Aug. 25.

In general, she said Captain Lampe was healthy. He suffered from acid reflux and seasonal allergies. He took Omeprazole 20 mg caplets once per day for reflux and fluticasone propionate 50 mcg nasal spray once per day for seasonal allergies. He had surgery for an ankle injury in January 2009 and for a knee injury in August 2009.

Captain Lampe wore glasses for reading purposes, which was a new prescription, but she did not recall the prescription. He was not required to wear them for reading. She was not aware of any problems with color vision or hearing.

He did not have a cold or other illness recently. He did not take any other prescription medications, or non-prescription medications that she was aware of.

She said Captain Lampe drank alcohol occasionally but did not mention that he had had a drink during his last trip.

He did not smoke or chew tobacco. He did not suffer from asthma or any other respiratory problems besides seasonal allergies. He was able to control his allergies with the nasal spray.

She said Captain Lampe had recently taken up running a month or so ago. He had been a runner in the past and was taking it back up. She thought he mentioned seeing someone at the gym but could not recall if it was in ANC or at one of the hotels.

He drank a travel mug's worth of coffee once per day in the morning and would drink water the rest of the day. He did not drink any other caffeinated beverages. He never mentioned having to drink coffee during any of his flights.

Mrs. Lampe thought that Captain Lampe handled stress very well. He had never mentioned any emergency or abnormal situations that he had experience while working at UPS.

In the past 12 months, Captain Lampe had not experienced any changes, good or bad, to his health, financial situation or personal life.

She said Captain Lampe did not have any concerns about flying for UPS or the B747. She said he loved flying the B747 and it was his favorite airplane to fly. There were not external pressures from the company or his personal life. The last time they talked, she said he was very relaxed and happy.

He did not have any issues that she was aware of regarding training. He did not have any issues with other crewmembers and she said he got along with almost everyone. There were no

personality conflicts that she was aware and she thought he would have told her. She said he never complained about anyone.

She said he kept manuals and papers at his crash pad in ANC and also carried some back and forth with him.

The interview concluded at 0935 EST.

13.0 Interview: Paul Gerard, UPS Ground School Instructor

Date: October 4, 2010

Location: Via Conference Call

Time: 1330

Present were: David Lawrence - National Transportation Safety Board (NTSB); Dr. Katherine Wilson – NTSB; Mr. Steve Foss – Federal Aviation Administration (FAA); Martin Henshaw – Independent Pilots Association (IAP)

During the interview, Mr. Gerard stated the following information:

His name was Paul Steven Gerard, and he was 56 years old. His date of hire with UPS was June of 2007. He was type rated on the B747-400, and finished his training in August, 2010 in ANC. He flew for the Navy, and then flew for 18 and half years with Delta Airlines until they went bankrupt. He said UPS was looking for people who had “heavy” experience and a training background in “heavy” equipment, and he came to UPS. At Delta, he was a B757/767 Captain, a check airman, and was one of the first to go through AQP there. He also flew the B727 as an engineer, MD88, and was an F/O on the B757, 767, and L1011. He had about 9,000 hours of total time, of which about 5,000 was PIC. He had not flown the B747-400.

He taught the B747-400 in the FBS. He said it was difficult to get ground school instructors in ANC, so UPS asked some of them to “wear two hats” and teach ground school as well in ANC. He said that was where he met Matt Bell, in the ground school but he did not have him the FBS training.

He said he had written much of the curriculum for the ground school, and they were getting ready to introduce AQP on the B747-400 fleet, but would go to the simulator for curriculum development or to work out procedures “and such”. He did not fly the simulator on a regular basis.

He taught “general subjects” and introductions to international flying, performance, and MEL training in the ground school. He had F/O Bell in his class for his first week of training. They first taught basic indoctrination in ground school, then “got on to other things.” Some items taught were general, but the performance items were specific to the B747-400. He taught systems on the B747-400, but did not have F/O Bell for those classes.

He said F/O Bell was “a really fine person.” He said F/O Bell worked very hard, was not inhibited about asking questions, and “wanted to know everything.” He considered F/O Bell an upbeat and nice guy. During breaks in class, they talked about his family, and he could tell F/O Bell was very proud of his family.

He had not looked up the training records of F/O Bell prior to the interview.

He said emergency training and emergency equipment was included in the ground school portion that he taught to F/O Bell. They used a 21 minute long emergency video, and also conducted “hands on” training with the emergency equipment.

He said the use of the oxygen mask and smoke goggles were included in ground school. Most of his students were already familiar with the oxygen mask. He said they knew how to don it, and they talked about the smoke goggles and how the clearing of the goggles was available in the emergency mode. The mask was activated when the mask doors opened, and this was taught in the CBT and in the simulator. They do not teach the oxygen mask in the FBS, but taught it with other emergency equipment in ground school, and the mask would not inflate. He said for the smoke goggles, they are taught to check the integrity of the goggles and to size them. He taught his students that eye glasses could “become an issue” with the goggles, and if you are not careful “you will knock them off.” If you haven’t put on the smoke goggles with eye glasses, you need to do it at least one time.

He said that that when the mask is donned with the smoke goggles, the vent needed to be “pulled down.” The only two learning points about that was to pull the vent down and have the mask in emergency mode for positive pressure to clear the goggles. He said that information was in the systems manual, and “there wasn’t a lot of hands on” training for the mask and smoke vent. He said that during his simulator training in August, he had donned the mask and goggles in the simulator. Regarding donning the mask with the headsets on, he said that if you had done it before “you were prepared for it.”

When he flew for Delta, he said they also had the mask a goggle sets.

He said they are completing AQP “calibration” for the B747-400 recurrent for the second week of November. He said the dates of AQP implementation had moved, but he did not know why.

He said they would occasionally make recommendations for procedural changes, and they used the Boeing provided FCOM for training. He said he had seen the AFM for the B747-400, but they had not done a comparison of the UPS manuals with the AFM. If there were differences on a procedure in the AFM and what was used at UPS, he said “I would think we would take a look at that” if it was something critical.

He said he was not that involved in actual training presently, and most of what he did involved the yearly recurrent curriculum and preparation for AQP.

They taught the walk-around bottle in ground school, but they do not require the pilots to “routinely” use the bottle and mask, and do not train “hands on” with the walk-around oxygen bottle and mask.

He said that the “wand” on the main deck was trained in the walk-around presentation in the CBT that was completed by the pilots. It was also trained during IOE, and was in the systems manual. He said he did not know if they actually performed “hands on” training with the wand.

He said that the pilots are not taught to go down to the main deck to fight a fire.

He said it was part of the curriculum to teach the mask and goggles, including the vent on the mask, as part of his emergency training “briefing”.

In the FBS, they taught emergency checklists to get the students used to the Boeing checklists. They did not cover smoke, fire, or fumes checklists in the FBS. During his simulator, he was trained for an uncontrollable fire, and taught to get the airplane on the ground. One of his instructors also showed him how to “hook the aircraft” up to the approach for an auto-land to “get the airplane down” quickly. This was taught by Ben Brink and also Dave Bergman in the simulator. He said he for the uncontrollable fire training event he flew in the simulator, it took about 14 minutes to descend from 35,000 feet.

He said they taught the smoke evacuation handle several ways, and the “learning point” was directed in the checklist to “not pull smoke into the cockpit.” The handle’s use was taught in the simulator, and was taught in the FBS only as a preflight item.

He said the specific location of the fire extinguishers was taught in the systems manual and the CBT.

He said they were not taught in the simulator what to do if the oxygen to the masks was not available. They were taught what to do if the masks were not set properly on the preflight, but not if there was a systems malfunction once airborne.

He said they did not know what happened in the accident, so they have not addressed any changes to their procedures.

Based upon his experience, if there was an airborne failure of the crew oxygen system, the only two options he could see would be to use the portable oxygen bottle or an observer’s mask in the cockpit. Both of these options would require the pilot to get out of his seat. The PBE would be available, “but only for a short-term basis.”

He said he had jumpseated on the B747-400 “a couple of times”, and the last time was about 8 months. UPS is trying to get the instructors more jumpseat time for the international flights, but he did not know if there was a requirement for instructors to jumpseat.

He said threat and error management training was introduced in the general subjects training as a philosophy.

Interview concluded at 1415 EST.

14.0 Interview: Dawn Lee Bell, wife of First Officer Matt Bell

Date: October 20, 2010

Location: via telephone

Time: 1430 EST

Present were: Dr. Katherine Wilson – NTSB; Captain David Lawrence – NTSB

In the interview, Mrs. Bell stated the following:

She met F/O Bell about 15 and a half years ago. He had told her that when was interested in aviation since he was a kid and was always interested in flying. Prior to UPS, he was accepted to OCS⁵⁸ for the US Marine Corps, but because of injuries to his foot and leg, he was not able to complete pilot training. He learned to fly at Comair Aviation Academy, formerly Delta Connection Academy, in Sanford, Florida, and flew as an instructor there to build his hours. He then flew for Chautauqua Airlines before being hired by UPS.

Mrs. Bell said her husband liked flying because he liked the feeling of floating and being away from the Earth. He had no concerns about flying in general, although if he did not have something in common with the pilot he was flying with it could make the trip long. He did not have any concerns about flying for UPS and flying for UPS was his goal. He did not have any concerns about flying the B747; he was very excited to fly that airplane as it was the biggest jet to fly and was really proud to fly it.

F/O Bell did not have a crash pad in ANC. He departed for a trip on August 25, 2010, and did not return prior to the accident.

Mrs. Bell last spoke to him on the morning of Friday, September 3, 2010, just after 8 AM EST. He was “just checking in” to see how things were going, asked his daughter was ok and they discussed these candies that could be purchased in Germany for his daughter. Nothing seemed out of the ordinary. He did not mention any problems with the hotel or sleeping. He was staying at the Fairmont which was a really nice hotel. She thought he called from his cell phone.

He did not mention when he went to bed the night prior to the accident or when he woke up that morning. While in Dubai, he did some sightseeing and had sent her some pictures to her cell phone. He did not mention whether he took a nap while in Dubai.

When F/O Bell was not flying, he typically fell asleep about 10-11 PM and would awake about 0600-0700. They did not have a TV in their bedroom so if he did not come to bed with her, he would watch TV until about 2300, then come to bed and fall right to sleep. He typically would feel rested in the morning. He did not have any sleep disorders or sleep problems. She said he

⁵⁸ Officer Candidate School

never napped during the day. But if he had come home from a trip, he would nap from about 1000-1400 and then get up for the day and go to bed as normal that night. He needed about a 1 day recovery time after a trip. She thought he needed 7-8 hours of sleep per night to feel rested. She thought he was an evening person.

During the 18 days off prior to his departure on August 25, they did not go on vacation and she said they were planning a vacation for mid-October. During that time, F/O Bell's nephews came in to town and he took them to SeaWorld.

She said F/O Bell was really healthy and he loved to run; he ran a lot. He had completed 3 marathons in the past 5 years. He had also completed US Marine Corps boot camp in 1998. She said he was always busy and fit. He exercised every day or every other day. He would take his exercise clothes with him on trips to work out at the gym, but she did not know if he exercised while in Dubai.

He was not taking any prescription or non-prescription medications at the time of the accident. Prior to leaving for his trip, he broke his pinky toe and in July he cut his right hand pointer finger with a hedge trimmer. He needed surgery for the cut on August 3, 2010. He took one or two pain killers the day of the surgery but did not take any more after that.

He had not had a cold or other illness recently and she said he rarely got sick.

He had no problems with his vision or hearing.

She said F/O Bell drank alcohol socially but did not mention that he had had a drink while in Dubai.

He did not smoke or chew tobacco. He did not suffer from asthma or any other respiratory problems.

Mrs. Bell said he would have a cup or two of coffee every day, in the morning. He would occasionally drink a diet soda. She did not know if he drank coffee while he was flying.

In the past 12 months, F/O Bell had not experienced any changes, good or bad, to his health, financial situation or personal life.

There were not external pressures from the company or his personal life.

Regarding his commute to ANC, she said that he had just completed training on July 4, 2010, and thought he had only completed one trip prior to the accident trip. She was not sure if his trip even started in ANC. He was not concerned about his commute because another pilot had told him that he would be sent to a location on a commercial flight to start a trip. He did commute while at Chautauqua, out of Miami. The day of recovery time he needed after a trip was more when he flew for UPS than Chautauqua because he did more nighttime flying at UPS. When he flew for Chautauqua, he flew domestically and rarely flew early morning or late night.

When he began flying for UPS, he flew out of Ontario, California, was switched to SDF sometime last year, and then when his training began for the B747 on May 17, 2010, he was switched to ANC.

She did not have anything additional to add to the interview that she thought might help with the investigation.

The interview concluded at 1500 EST.