Docket No. SA-538

Exhibit No. 2-D

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Attachment 3– Other Interview Summaries
(42 Pages)

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

February 1, 2014

Attachment 3 – Other Interview Summaries

OPERATIONAL FACTORS

DCA13MA133

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A. OTHER INTERVIEW SUMMARIES

1.0 Interviewee: Robert Walters, UPS A300 Captain

Date: September 11, 2013
Location: via phone
Time: 1310 EDT
Present: David Lawrence, Katherine Wilson – National Transportation Safety Board (NTSB); Lawrence Ashby – UPS

Capt. Walters was represented by Kathy Yodice, Yodice and Associates, via phone.

During the interview, Capt. Walters stated the following:

His name was Robert Bruce Walters, and he was 52 years old. His title was captain on the A300 for UPS, and he was not in the training department for UPS. His flight time was all civilian, having started his aviation career as a teenager learning at a Part 141 training center. He got his certificates there, including his multi-engine license, commercial license, and flight instructor rating. He flew for a Part 135 operator, corporate, and 2 commuters. Prior to coming to UPS, he flew for Braniff on the B727. At UPS, he checked out on all their airplanes except for the B747-400. His most recent airplane he flew before the Airbus was the MD-11. He was not on reserve, and bid hard lines.

He estimated that his total time was somewhat over 11,000 hours, and about 75% of that was PIC time. He had about 200-300 hours on the Airbus, having checked out on it in late winter/early spring of 2012.

When asked if he knew the accident pilots, he said he knew both crewmembers. He knew the captain since he commuted out of Charleston, SC, and he flew a lot of Charlotte trips, and the captain commuted out of Charlotte. He also met him on his EWR layovers, where he once shared dinner with him. He characterized that relationship as social, occasionally crossing paths at UPS. He said the captain never spoke to him about work or flying for UPS. They mostly talked about walking on their layovers, and asked each other where they were going to walk during their layovers. The last time he talked to the captain was on the morning of the accident, just before they all left. He and the FO he was flying with were sitting at a table in the ready room reviewing the paperwork, and he saw both accident pilots looking over their paperwork across the table from them. He talked to the accident captain about Birmingham, and how it was a great place to walk around. He said they then collected their paperwork and left. The accident captain did not mention any concerns about their trip to BHM. He saw the accident crew for maybe 10 minutes in the prep room, and he thought the accident FO was there first with the paperwork. Capt. Walters had been sitting in the ready room about 5-10 minutes at that time. Their conversation was brief. He assumed the captain came out of the crew rest area, but he could be wrong about that since he could have been coming out of anywhere, like the reading room or cafeteria. They appeared pretty typical for 0330 in the morning. They looked like he felt; everyone was ready to get where they were going. He said they did not appear overly tired. He said most pilots at that point of the day were ready to move on after sitting during the sort for 3-4 hours, having started their day 7-9 hours earlier. The accident FO had come over while he was talking to the captain, and she made a remark about the captain walking once in BHM and getting lost, and she said that was why they made smart phones. Neither pilot commented on concerns about flying into BHM.

He had flown with the FO for a week in July. His assigned FO was displaced for training, and she took his place. It was a relatively easy week of work. They flew commercial into TUL, and then flew two legs per night for 4 nights, flying through SDF through the sort and back to TUL. They then flew commercial out of Tulsa after their crew rest. Their "overdays" had plenty of rest time in TUL. The temperatures in TUL were high, in the low 100's, and trying to day sleep was difficult since the hotel had a hard time keeping cool. They did not interact during the day, and both of them complained to the hotel when they met to go to work. It impacted them the first half of the week, and they were not as rested as they could have been. The other days in the hotel they moved rooms to a cooler part of the hotel during the second part of the week and they were able to sleep.

He said it was always a challenge trying to day sleep in hotels, with the outside noise, and during the summer times with hotel events. He said the hotels were always hot during the summer. You had to set the temperature low, turn the lights out, and prevent noise. These were the "big 3" things that made it conducive to getting sleep during the day, and it was difficult at some of their hotels. There was an avenue to report hotel problems through the union or via an event report if the situation was extreme or unacceptable. If it was minor, he would just report it to the union rep.

He said the FO was very personable and likeable. She appeared well trained and studied up, and did the duties of an FO. They talked about a couple of things while in the airplane. She took advice from him after he saw her doing something in the Airbus with the navigation, and he spoke to her about it and she was receptive to his input. He said with the Airbus navigation system, you have to be careful with it during direct routing, and further down the road it flies from point A to point B, and it would alter the course you were on when you made changes. There was a way around that, and he explained it to her and she took his advice. She asked him to draw it out for her the next night.

He said she was knowledgeable of the FMS system, considering neither of them had been on the airplane more than a year. He was "just starting to know enough" and were probably starting to develop some habit patterns. He told her if she saw something to say something. They had a great week of weather, with no deviations. It was mostly VFR or marginal VFR at their destinations. They flew ILS approaches at all their destinations. On her legs, she was "conservative," and stayed up with the airplane. He had no concerns flying with her; nothing stood out. There were no real challenges during their trip, other than a minor fuel loading issue in TUL that she told him about and he took care of. He said their flights would leave TUL around 11pm back into SDF around 0100, and then depart SDF for TUL around 0430. While in SDF, they both got rooms keys for the sleep room, they would socially interact for a time when they got there, and then they both used the sleep rooms that week. She did not express any concerns to him about family or work.

He had flown into BHM before, and he could not see a reason why he would attempt an approach in marginal weather conditions to a different runway, though he did not know what the weather was the night of the accident. He said a lot of times, the advertised weather would not be what the actual weather was, and you would be prepared for the lowest legal weather for the approach. All the times he flew into BHM, he would use the longer runway, and he never landed on 18 before. When asked about concerns with flying into BHM, he said he had none, other than the first time he flew into the airport, when ATC would try to get them to call the airport for a night visual. He usually would request vectors to the final outside the final approach fix if he had not been there many times. BHM had terrain that could get you into trouble, and it might be difficult to maneuver around the airport during night visuals, but added that BHM was not unique in how they handled night visuals.

When asked if he had heard of the FO prior to their flying together, he said he met her in the elevator coming out of the sleep rooms about 2 weeks prior to flying together, and they spoke about Lynchburg and her connection to Jack Daniels and how he had once done the tour there. He had not heard of anyone else voicing concerns about flying with her.

He had received training on non-precision approaches at UPS during initial, for both profile and vertical speed descents. On profile descents, the autopilot controlled the descent to an altitude. In vertical speed, you were controlling the vertical speed to a point. They conducted several of these approaches during training, probably "a couple 3 of each. It was easy to do in the simulator since you pre-briefed the event and knew what you are planning on doing, and it was not hurried. It was possible to freeze the motion on the simulator to get everyone caught up. For him, the

MD-11 did an awesome job controlling the vertical position of the airplane. On the Airbus, sometimes you had to "tinker" with the vertical speed to get the profile to engage. He had had that happen to him before in the simulator and airplane. He said you would think everything was set up, but for some reason the profile never captured. It could be possibly that the airplane had not achieved its altitude hold mode so that it could not capture. You would have to give it a little vertical guidance and then arm the profile mode to get it to capture. They had "hard cards" they used as briefing guides for nonprecision approaches.

He could go a year without ever conducting a non-precision approach, and he had only done a handful on the line in a year and a half, maybe 3 or 4. He said sometimes on the line you would not know you were going to be doing one of these types of approaches until shortly after top of descent, or after a runway change. Sometimes ATC would look at prohibiting towers from a "reverse" flow of aircraft, and ATC would not turn the airport around to land on the runway with the precision approach because of a pre-determined active runway. He had that at BDL, where they would not allow them to use the precision approach when the precision approach runway was available. When that happened, someone in the cockpit was navigating and someone was flying. The briefing card had multiple steps with several bullet points. The pilot flying would have the pilot monitoring get the card out and set it up, and there would be time to talk about it, but sometimes they gave you a straight in approach for a runway you had not planned on doing. You then didn't have the time to talk about the approach, configure and set up for the approach. The pilot monitoring set up the approach, then the pilot flying would sit back, take a deep breath and brief it. If they were doing a straight in and only 30 miles out, there would be no time to take a deep breath. The brief should take place prior to top of descent. Their training said that if they were no longer at cruise flight, and needed to rebrief the new approach, you would make a positive transfer of control and have the pilot being briefed watching the aircraft while the pilot briefing is actually the pilot monitoring, and then you made a positive transfer of control back. After the pilot monitoring set up the approach, you would brief it. There was discretion on who set up the approach, and he may ask the FO to set up the approach, and transfer control and he would brief it.

He said the briefing card they used was a guide, and was a very good tool. They had several briefing cards for certain procedures they were encouraged to use. He could not imagine not using the briefing guide but was not sure if it was mandatory. He said that the Airbus was the first airplane he had flown with a lot of briefing guides, and said it was more of a "do list" than a checklist.

He said they would activate the approach when they were on vectors to the final approach course. For an ILS, you would use the LAND button once you received your approach clearance. For the non-precision approach, you would typically arm the profile button when shooting a localizer approach using the profile for your vertical navigation on the final approach with altitude hold. When asked about traps doing the profile descent, he said you might arm it early and the airplane would not know what to do, or you forget to arm it, or are late to arm it, or ATC may be giving you a late clearance and you are capturing the altitude.

He said the briefing guide told you to descend in vertical speed to intercept the path from above. He thought the guide said to do 1000 fpm to intercept from above. He did not recall if he had

ever done that in training but assumed he had. On the line, you would intercept the path using vertical speed. ATC would bring you close to the final approach fix, even in VFR weather, and higher than the final approach fix altitude, and you would have to help the airplane down with vertical speed. A lot of this was created by the ATC system, where most of the airports were set up with their aircraft flow to a runway they were already using, and they were not changing that. Some airports, like BHM or ALB, with 6600 feet of runway, the biggest airplane they saw was maybe an RJ or a Southwest 737. They could land the Airbus at 300,000 pounds as a wide body heavy lift aircraft, and ATC did not understand that they needed ample time to configure, get on altitude and slow, and they were used to smaller airplanes. He had had to do 3 discontinued approaches above 1000 feet; all 3 of those incidents were because ATC failed to get them on altitude outside of an approach fix where they needed to be.

Stable approach criteria was for no later than 1000 foot altitude. He said the callout at 1000 feet was "1000 feet, crosscheck, no flags" and did not reference stable approach, but the non-flying pilot would be looking at that. The call at 500 feet was for speed. There were no automatic aural callouts at minimums on the Airbus. He said the pilot monitoring on a non-precision approach was "absolutely essential." Throughout training and the few times he had to do them, you were backing each other up, and the pilot monitoring was talking the pilot flying through the approach, like what altitude to be on and when they got alt hold to now arm the profile. He said it truly was a team effort. He said there were no callouts for FMA changes.

When asked if the TUL hotel issues met the criteria to file an event report, he said no, since the hotel was working with them. They both knew that it was a relatively easy trip. They had ample time to use the sleep room to make up the lost sleep time.

They did not make any go-arounds during their trip, and he did not recall any issues with the FO regarding her callouts.

His date of hire at UPS was December 27, 1989.

When asked if there were any areas the FO could have improved on, he said no, and that "there are areas we can all improve, but as a whole, she was very standardized." She did her duties like any other FO would do.

He said UPS did have a fatigue policy. When asked if he would be comfortable calling fatigue for a trip, he said he would, as he had in the past, and would let the company know. They could call the ACP or crew scheduling, but typically it was always crew scheduling. If on duty and fatigued but not ill, it was a simple call to crew scheduling to call off fatigued. If operating multiple legs, you could also use the company ACARS system. He had done that before, and there was a follow up from the company. From what he understood, you were typically contacted by your ACP, you explain the situation, and if no further information was required, that was all. If they thought it was a questionable call, they may require additional information. A sick call was similar, you called crew scheduling, and notified them as early as you can that you cannot operate the trip. He had received numerous calls from his ACP, so that seemed normal. He did not have a problem calling in fatigued. He said other pilots might, based on pilots being goal oriented, and would press on. He did call fatigued on a particular trip on the MD-11, and they

were mid-way enroute on a 7.6 hour flight to ANC, and if they had to go around they would not have been able to operate safely. He did fill out a fatigue report on the trip.

When asked if he had ever heard any comments about the accident crew prior to the accident, he said anything he had heard about the FO was "hearsay and gossip and I'd rather not comment on it." He flew with the FO and did not have any problems, and could not speak about the captain.

When asked if, in his experience, would it be valid for UPS to institute a policy for FMA callouts, he said he did not know, and it could be a double edged sword. He compared it to engine starts where they used to call out everything, but now it was a quiet procedure. Sometimes it could get to where you were just hearing someone talking. Regarding the 1000 foot vertical speed to capture a profile from above, he said if you were flying a GPS approach in profile, he believed that was the technique.

When asked if he had any final thoughts, he said regarding fatigue, they talked about trapping errors, and fatigue was one of the biggest dangers they had in the industry. When he noticed an FO struggling to stay awake and he was feeling good, he would tell the FO to knock off for 10 minutes. If he knew one of the other crew members was napping, he would do everything he could to stay alert. He offered the accident FO the opportunity to nod off for 10-15 minutes; she did and woke up more refreshed. Sometimes that type of power nap could help, and anything they could do to mitigate fatigue was helpful.

The interview concluded at 1420.

2.0 Interviewee: Jason Hover, UPS A300 First Officer

Date: September 12, 2013
Location: via phone
Time: 1005 EDT
Present: David Lawrence, Katherine Wilson - NTSB; Lawrence Ashby - UPS

FO Hover was represented by Kathy Yodice, Yodice and Associates, via phone.

During the interview, FO Hover stated the following:

His full name was Jason Ronald Hover and he was 41 years old. He was an A300 FO at UPS and his date of hire was January 2005. He started at UPS as a flight engineer on the B747 and then moved to the Airbus after that. He had been on the Airbus for about 7 years. Prior to UPS was in active duty in the US Air Force for 10 years and 2 years in the Air National Guard. He flew the C-17 in both the USAF and ANG, was a copilot, aircraft commander, instructor pilot and evaluator pilot. He also flew the T-37 trainer in the USAF as an instructor for 3 years. He had about 7000 hours total time, 2500-3000 hours as PIC which a majority of that was in the military, and about 2900 hours in the A300.

He did not know the accident FO but did know the accident captain. He flew with the captain about 2 months prior to the accident. FO Hover was flying a week-long trip, from Sunday to

Friday or Saturday and the accident captain picked it up mid-trip so they flew maybe 3 days together.

The accident captain was very professional and always followed SOPs. He was a pilot that met the standards. FO Hover never had any issues at all with him. The captain was relaxed but professional and it was an enjoyable time flying with him.

They talked about their personal lives. The accident captain was excited because his daughter was graduating and was going to play basketball on a scholarship. They made small talk about their kids and sports. That was the extent of their conversations in the vans.

The night he and the accident captain left Birmingham, FO Hover asked him how he slept. That particular night, the captain said it was OK but that the older he got the harder it was to get good rest on these trips. FO Hover thought that was an interesting comment after what had happened.

FO Hover started the week-long trip in BHM with another captain and the accident captain started in SDF. They flew Peoria, Rockford then down through BHM and back. They flew about 3 nights together.

Regarding the accident captain's statement that it was difficult to get good rest, FO Hover was sure the captain was talking about night time trips. He had seen him in the sort over the years flying same trips as FO Hover flew. It was a week on/week off nighttime trips. The captain was referring to schedules and being up all night flying on the back side of the clock.

The accident captain did not seem tired when in the airplane. All pilots seemed tired when they got their paperwork at 0300. FO Hover thought most pilots were tired at 0330. It was how they operated. To those who work during the day, they might say those people look tired but to FO Hover they just look normal.

The accident captain never fell asleep in the airplane. When at the sort, the captain would come in, get his room key and go to the sleep room. He thought the captain maximized the time in the sleep room. He did that the three times they came through the sort together.

Regarding the accident captain's flying skills, he flew everything just fine. FO Hover did not notice anything that would set him apart on the high or low end. He flew like everyone else. FO Hover did not remember anything that was really awesome or not.

They did not have any weather challenges during their trip pairing. He thought the weather was decent that week. There may have been some enroute weather that they deviated around but it was a non-event. During the Peoria-Rockford segment, things came very fast and they were very rushed for time. Those were the only challenges he remembered. They slowed things down and got the approach set up. He remembered flying into Peoria and setting up for a runway but then that runway was closed and they had to change the FMC around to do another approach. Time was compressed because it was a short leg from Rockford to Peoria. He did not remember any other challenges. Going in to BHM in the morning when they flew back in there, the challenges for whatever reason was that ATC kept you up high for what seemed like a long time and you

can be hurried. The night they went in there, there were light winds and ATC was calling to land on runway 6. The winds were calm so they asked for runway 24. The vectors from ATC were horrible. When they had the airport in sight, FO Hover asked the accident captain if he wanted to do a visual because they could do better than the vectors they were getting. He remembered the accident captain hand flying the approach very well. He did witness the captain hand flying the airplane and he thought he did a fine job flying the visual backed up by the ILS approach.

When paired together, they did not get to shoot the whole nonprecision approach but they did get a chance to fly a visual approach backed up by the nonprecision into Peoria. The main north/south runway was closed and they could not land on it for some reason; they had to land on the shorter runway. It was a visual backed up with the nonprecision approach. FO Hover was the PF. The only challenges was that it got kind of rushed because there was no digital ATIS so they had to dial it up. In his mind he was thinking it was a short leg and they were going to land on the big runway but then the big runway with the ILS was closed and now what were they going to do and reshuffling. They slowed things down and built some time in by flying slower; it was not a big deal.

Asked how they slowed things down, he said they slowed the airplane down. Instead of flying 300 or 250 knots below 10,000 feet, they flew at 200 knots and still had to fly past the field to give the other crewmember time to load the FMC. He thought that was standard practice to build more time in and slow the airplane down. The nice thing of flying into Peoria and Rockford is that ATC did not hold them up high.

Not specific to flying with the accident captain, FO Hover said the terrain was dangerous around BHM. He had flown in there commercial on SWA and landed on 18. There seemed to be some terrain that could be an issue. But other than that, the runway they normally landed on and the one he had always landed on was long. He never had any issues with using the terrain awareness system on the airplane and flying the approach. They just got vectors into there and the issues of being held up longer.

He thought the first time he flew in to BHM was with an experienced captain and he brought that up. In training they taught them that terrain was a factor and one pilot should have the terrain awareness up on the screen and the other have the weather up.

Asked where a pilot would learn about terrain surrounding an airport, he said if neither pilot had been into that airport, the 10-10 page would be the first place to look. At certain airports where terrain or energy management was an issue, pilots on the Airbus fleet would post “how tos” or “gotchas” on AirUPSers. It would probably depend on how often pilots poked around on there. He had found good tidbits that were helpful to him. He would not say he went there every time before he flew but to some airports, like Mexico City, it was an unofficial reference to remind him of things.

He personally felt well trained for nonprecision approaches. The airplane he flew in the military had a system similar to the profile approach as on the Airbus. He did not use it for official approaches but he would use it to back up visual approaches. Because of that, he felt training was good at UPS.

He tried to shoot a nonprecision approach a few times a year. He tried to shoot a full approach probably four times a year so he could go through the steps of the briefing guide and set the FMC up. He knew he would have to do it in the simulator every year so he wanted to be "brushed up on it." He was not a pure visual approach guy and liked to back it up with something, and often times would back it up with the nonprecision approach. That allowed him to go through the steps and engaged with the steps of the nonprecision approaches. He saw a lot of guys do it. They would say they had training coming up so will shoot the profile for practice. It was not an uncommon thing for him to hear or see. He was not sure of any official guidance, it was just guys knowing they will be expected to fly the nonprecision to a standard level and would need to know how to do it and not be fumbling around with the FMC.

Guys who used the briefing guide did not have problems with the nonprecision approach. He had never seen anyone use the briefing guide and not be able to fly the nonprecision or profile approach. When all the pilots were learning to do it, there was fumbling.

He did not recall performing any go arounds when flying with the accident captain.

Regarding how the accident captain set the tone in the cockpit when they first flew together, he said it was SOP for the captain to give a CRM brief. Being the professional that the captain was with him, he remembered the captain saying if FO Hover saw him doing something wrong to speak up. The captain would put the FO at ease to feel comfortable to speak up. The captain was not overbearing in any way. He was a humble guy and would brief a standard CRM. The captain maintained sterile cockpit below 18,000 feet and definitely below 10,000 feet. He followed the SOP. The captain said if FO Hover saw him doing anything wrong to speak up and he would do the same and for FO Hover ask any questions he had. He did not recall the captain briefing anything specific about fatigue.

He could not think of an area where the accident captain could improve. He was very humble. He did not see anything awesome or negative. The airplane was stabilized and they did not have to perform a go around or anything requiring an event report, and the weather was decent.

FOs talked a lot and he recalled people saying that the accident captain was a nice guy.

When asked if he had heard anything about the accident FO, he said he had never spoken to anyone about her and he did not even really know who she was prior to the incident.

He saw the accident FO the night of the accident. He was flying to Memphis which left at a similar time to the flight to BHM. He saw the accident crew at various times throughout that night. He saw the FO in the cafeteria he thought when he arrived. He thought they probably arrived about the same time. She was in a booth with other crewmembers but he did not know who they were. He had flown in from MEM and thought they arrived around 0100 or probably the 0130 time frame. He saw her and the accident captain as he was leaving. FO Hover was sitting at a table next to them when they were doing their paperwork. He did not speak to the captain. He thought his flight left about 0430 so he probably saw the accident crew around 0330 local time.

UPS had a no fault go around policy. FO Hover had used it before. He had done a go around a couple of different times and had never heard anything about it. He never had a captain he flew with call him and say they had heard something about it. If there was an event that led to doing a go around, that would require an event report. He recalled getting behind with energy management after being kept high when flying into Ontario that led to a go around. He also recalled getting bad vectoring coming into SDF one time that did not allow them to meet stabilized approach criteria so they went around. He did not recall hearing anything about it. He thought an event report might be required if they got a TCAS or failed to put the gear down and did a go around; something that was not done properly that required a go around like a safety type issue.

He had not made a fatigue call but felt comfortable making a fatigue call if he felt tired. The process would be to call crew scheduling. He was sure they would have questions and he would fill out an event report with the circumstances. There was a process it would go through to determine if the pilot was fatigued or not. If not fatigued, the pilot's sick bank would get debited for the time missed.

He had never seen touchdown elevation entered in as the MDA in the FMC. When he used it on a clear night he would put in something a little bit lower than the MDA for him personally to keep the profile diamond on the ND map engaged a little longer. He would be flying a visual so it he would use it as a visual for him and use as a crosscheck a little longer. He was sure it would let you keep the autopilot engaged a little longer but it was not procedurally correct to keep the autopilot on. He put it in because he was hand flying and it was another reference for the computed glideslope. He recalled flying into Springfield, MO, although he did not recall for which runway, where often times when the airplane showed on glidepath but the PAPI showed three whites over one red. Or he was on the PAPI and the airplane showed below the glidepath. Some airports were more for general aviation and when flying a heavy jet with a higher cockpit he wondered if the PAPI angle was appropriate for them. So it gave him another bit of information to crosscheck with what his eyes saw, what the PAPI was telling him and what the ND map was telling him. This was something he just did knowing the capability of how the system worked. He did not see a lot of people use the profile diamond to back up the visual. He did not see that a lot at all.

Asked if there was ever a case where he would start an approach in vertical speed and then go to profile, he asked to clarify if he was flying a GPS approach or an ILS glideslope out. He said if he made the determination to fly the profile or vertical speed, he was not going to change to the other. He would not change it midstream from what he briefed.

It was a challenge to prepare to fly at night. For him, he was pretty particular about diet and exercise. It was an important part for him when flying but also for his own health. He got as much rest as he could and worked out. He took a lot of personal pride and responsibility. Everyone was different. Some people could sleep 8 hours during the day at one shot but he could not. He learned what worked for him. He did a split sleep schedule. He would sleep right when he got in for 2-5 hours, workout, eat and shower, and then go back to sleep before leaving the hotel at night. He would get a 1-3 hour nap before he went. That was how he managed his rest.

And he took full advantage of the sleep rooms in SDF, or a chair before there were sleep rooms, and would try to catch some sleep.

Fatigue was a personal kind of thing. There was tired and fatigued. Everyone felt a little different. He had not called fatigued but that did not mean his sleep had not been interrupted. There were two times he could have called fatigued; both times went through SDF. He was alert to fly into SDF but was lucky that he did not have to fly all night. If he was going all night he would probably have had to call in fatigued.

Regarding how long it took him to adjust his sleep, he said he did not figure his system out until he was on the Airbus. He was at UPS for 6 months and then went away for military activation for 1 year and then came back. When back on the Airbus it probably took him almost a year to figure it out. He tried staying up all night, sleeping in sleep rooms, and first working out after arriving and then getting rest. He discovered over time that what he did now when flying night schedules worked. He knew the FOM alertness guide existed but did not know if he had ever read it in its entirety.

He commuted to work but was not sure if it made it harder or easier. A lot of times he would hear that because a pilot commutes he would be more tired. But just because a pilot lived in SDF did not mean that he would get more rest. It took personal responsibility. For him, he was able to manage his commute which was a short flight from Kansas City. He was not one who would fly in and then do a turn. That was not in his comfort zone. He wife was understanding and respected his need for rest. On the day that he would commute in, he would follow his routine. He would take a nap and then commute in.

He thought the Rockford-Peoria-BHM nights were more difficult. For him, the Peoria-Rockford leg outbound was difficult because by the time they left it was late. Coming into Rockford the sun would be coming up when landing. It was difficult for the body to go to sleep when you saw the sun come up. It was confusing for the body so it would fight that. On schedules like that when the sun was up it was difficult to get good rest and then that would flow through the rest of the week. Personally he did not like to fly three legs a night. He thought you were putting yourself in jeopardy one more time than on a two leg night. To do it when tired or not as well rested, he thought it could be difficult. If he had his choice, he would do two legs that were often one long and one short leg. Everyone had a take on what was better or worse.

The incident was very important to him being on the fleet flying into BHM and similar airports. Something that he looked at were the approaches. What he found interesting was when jumpseating on a SWA flight with a long cruise portion. He asked the see the crew's Jeppesen charts. In their 10-10 equivalent page, which was a 10-7 page, it did not address the incident runway but rather runway 36. They were not allowed to land on runway 36 because of terrain 2 miles south of the airport. When he looked at UPS' Jeppesen charts, it said they could not fly a precision approach to 36 but they could fly a visual. He questioned why two Part 121 carriers would have different guidance and wondered who was looking at the approaches and what was safe and what was not. He wondered how many other airports had nuances like that.

The interview concluded at 1104.

3.0 Interviewee: Charles Phillips, UPS A300 First Officer

Date: September 12, 2013
Location: via phone
Time: 1310 EDT
Present: David Lawrence, Katherine Wilson - NTSB; Lawrence Ashby - UPS

FO Phillips was represented by Kathy Yodice, Yodice and Associates via phone.

During the interview, FO Phillips stated the following:

His name was Charles Andrew Phillips, and he was 47 years old. He was a first officer on the Airbus 300 at UPS, and his date of hire with UPS was November 2, 2000.

He started on the A300 for 6-7 months in 2001 or 2002. He was displaced and then returned to the Airbus about 3 and half years ago. He had been displaced to the 757 as an FO, then to the DC8 as an engineer, then 757 for 8 years before returning to the Airbus. He estimated that he had about 8000 hours total time, with about 4000 hour as PIC. He estimated he had about 900 hours on the Airbus.

He knew the accident captain. He was from the Charlotte area, and he knew him from jumpseating back and forth from CLT. Sometimes he and his wife would give the captain a ride over to the terminal if his car was over at the terminal from when he commercialed up to SDF. They would also speak in the crew room. They flew together a few times, the last time was on June 29, 2013, and it was not a scheduled trip for him. He was jumpseating home, and did a fly/no pay for the FO that was scheduled on the flight, and he believed the captain was doing the same thing. It was just a SDF to CLT leg. He had flow with him another time, and said maybe a third time.

He said the captain was "very normal and standard," very routine, and did nothing out of the ordinary. He followed all the procedures, had good briefings and used the checklists. He adhered to sterile cockpit rules, and there was nothing to lead FO Phillips to believe he would do anything wrong.

He said he and the captain spoke, and knew that after their last flight, the captain was going to get on a flight to the northeast to meet his wife and daughter and help his daughter get settled into college, and then a vacation to Hilton Head afterwards. The captain was happy and real proud of his kids. He did not mention any family or financial concerns. He did not mention any concerns regarding the A300 or the schedules he flew, and added that everyone complained in general about their schedules, but he did not remember anything specific given the time that had passed. He talked to the captain during the sort, and remembered him going to the sleep rooms, and he would use those sometimes.

He did not remember what the weather was like, if they had to fly an approach or not. If they did, it would have been an ILS so they would not have needed to use the briefing guide. He had not

flown a nonprecision approach with the captain before. He had flown into BHM before, maybe once, and they landed on the long runway. He had no concerns about flying into BHM.

He said they did not do nonprecision approaches very often. He flew one not long ago into Springfield, MO, on runway 20. The winds were favoring 20, and there was no ILS on that runway other than the nonprecision approach. It had a GPS RNAV. They really only practiced the nonprecision approach as a backup to the visual. He also would see other pilots fly them when they had recurrent. He felt comfortable flying nonprecision approaches at UPS.

He never heard anyone say something negative about the captain. He had heard positive things, but he knew the captain was okay anyway. He did not know the accident FO and had never heard anything about her. He thought the last time he saw the captain was in June. He said there were no challenges commuting between SDF and CLT.

He never performed a go-around when he flew with the captain. The captain's tone in the cockpit was good, and added that when you had flown with a guy before, sometimes they did not give you the full briefing to start the trip, but this captain did every time. There were no areas he could think of where he thought the captain could have improved, and said "he had no faults."

He had never called off fatigued for a trip, and he would feel comfortable doing it.

His seniority allowed him to hold week on and week off trips. To prepare for an upcoming trip, he would try and take a nap prior to going down to CLT, and he would also get a sleep room in SDF. He had seen the UPS alertness guide, and it was "mostly common sense stuff." He said UPS was his first exposure to full night time flying. He said for him, the first night of a trip was the hardest, and the second day you sleep in late and can get on a pattern.

He thought practicing nonprecision approaches was a good idea, at least once during a trip. He said the hard stuff was the stuff that popped up and you did not get an opportunity to practice it, such as go arounds.

When asked if he had any final comments, he said no.

The interview concluded at 1325.

4.0 Interviewee: Mark Bacher, LabCorp Pilot

Date: September 16, 2013
Location: via phone
Time: 1500 EDT
Present: David Lawrence, Dan Bartlett – NTSB

Mr. Bacher declined to be represented.

During the interview, Mr. Bacher stated the following:

His name was Mark Steven Bacher, and he was 53 years old. He was a pilot for LabCorp, flying Part 91 flights on a Piper Navajo, transporting medical specimens at night and the early morning hours. He said he believed the airplane he was flying on the night of the accident was N3589X. He flew BHM to BNA, then BNA to BHM that evening. He was "out-based" in BHM for LabCorp with one other pilot flying the one PA31 based there. The company only had two PA31's left, and were moving toward obtaining Pilatus aircraft.

He remembered the evening of the accident well, and said he knew that he turned up the ATIS and understood that the longer runway was closed, and he was concerned with flying the runway 18 approach since he had "messed it up" before, and it was a tricky approach. He could not remember exactly what the ceiling was being called at, but he remembered that it was low enough that it required him to shoot the approach. He said he was at about 4,000 feet earlier in the flight when he heard the ATIS, and knew that the ceiling was low enough to require the approach, and he was "on-guard" to make sure he was prepared, slowed, and stable for the approach early.

He believed that when he was at BASKN on the approach, he was "most of the time" in VMC conditions, and could see the airport from BASKN at 2,300 feet.

He said the flight was called "Skylab 301."

He did not remember if he was in and out of the clouds, or in the clouds continuously. He said that there were times when he got high on the 18 runway approach in the past, and he was concerned about the approach. He remembered seeing the airport at BASKN on the approach, but did not remember if he saw the PAPIs or not. The runway lights were all visible. There were no problems with the localizer, and he had it identified early. He said coming out of BNA, you could intercept and track the localizer early since it was basically a straight shot into BHM.

He flew into BHM "just about every day" with his route 4-6 hours per night, in and out of BHM each evening. He said runway 24 was "bad" for fog, and may be due to all the grass on the approach, and the end of the runway would be clear. He said heavy fog could form on the approach for 24. He did not land on runway 18 unless he was "forced to." He said 6/24 was the better runway.

He was a former check airman for an air ambulance company, and he had experience flying a jet into BHM on runway 18. He said there was not much distance between the FAF and IMTOY to get down, and thought that the IMTOY crossing should be taken off the approach to help for a more stabilized descent from FAF to the MDA. There was also a mountain ridge on the other side of the airport in the event of a go-around, so the whole approach had safety issues. He could see how people who did not shoot that approach often "could get into trouble." He said the approach could "lure you in to where a problem could occur."

He said on the night of the accident, he remembered that he would have to get ready for the runway 18 approach based on what he heard on the ATIS. He had shot 2 approaches to runway 24 when the weather was not what the reported weather was, but he could not remember if that had happened an approach to 18.

He confirmed that his flight left BNA at 0314 CDT (out of the chocks) and the wheels up was about 0318, and he arrived into BHM at 0417 CDT. He did not remember hearing any other airplanes coming into BHM while he was on the approach. He did not remember if he advised ATC about the ceiling, nor did he remember if ATC solicited that information from him.

He restated that the approach to 18 should "get rid of that first minimum" at IMTOY, and trying to hit that lower minimum "invites" the airplane to become unstable.

He thought perhaps the ceiling had "come in" on the UPS flight, but he could not remember exactly at what point he became VMC, and thought it was at BASKN.

The interview concluded at 1536.

5.0 Interviewee: William Zorc, UPS A300 Captain

Date: September 11, 2013
Location: via phone
Time: 1010 EDT
Present: David Lawrence, Katherine Wilson - NTSB; Lawrence Ashby - UPS

Capt. Zorc was represented by Kathy Yodice, Yodice and Associates, via phone.

During the interview, Captain Zorc stated the following:

His full name was William Joseph Zorc and he was 57 years old. He was an A300 captain and had been for about 10 years. He was not a check airman. His DOH at UPS was August 15, 1988. He had about 14,000 hours total time, a majority of which was as PIC. He had about 1000 hours of SIC or instruction time. Pilots averaged about 350 hours per year flying the A300 so he estimated he had about 3500 hours on the A300. Prior to UPS he worked for Evergreen International doing mostly contract work for UPS. He flew all three seats on the B727. He had 20 years' experience on the B727 – flight engineer for 3.5 years, right seat for 4 years and left seat for 13 years. Prior to that, he and his late wife owned and operated a Part 141 approved FBO from 1980 until 1989. He worked at other flight schools and at a military base in Germany as a flight instructor. He got his education at Embry-Riddle Aeronautical University in Daytona Beach, FL. He had type ratings on the B727 and A310.

He knew the accident captain and flew with him on the B727 and A300 when the accident captain was in the right seat. The accident captain seemed to do a nice job on the flights, flew the aircraft well and Capt. Zorc did not see any issues. The accident captain was a nice person to be around. He did not recall when they flew together last but thought it was 8-10 years ago. Since then, he had seen the accident captain just passing through the sort once in a while. They would talk about the accident captain's kids growing up. He did not recall them talking about the accident captain's schedule. The accident captain was not a whiner or complainer.

Some pilots would say it was hard to fly at night and to sit reserve. He said, "he's not a whiner or complainer, but people over the years have had a hard time adjusting to flying at night." When asked what was difficult about their schedules, Capt. Zorc said "people were not made to work at night."

Capt. Zorc flew with the accident FO for five legs over 2 ½ days. It was the first time he had met her. When flying with someone the first time he would try to get that person's background and determine what he could expect from them. He thought she flew three of the legs. They flew out of St. Pete. She had not been to St. Pete before so he gave her tips on what they could see, where to look, etc. He did not see any issues during the flights. At UPS he had flown with very few people where he had any issues. He was kind of impressed when he learned she got her private pilot's license on her 17th birthday like him, few people at that age have the commitment, drive.

The pairing was a simple couple of days. He had flown with three different FO during that week so it was hard to remember. The FO he was paired with had leave scheduled so he was flying with reserve pilots.

The St. Pete tower was closed when they got there. They might have talked about the different approach options into the airport. Sometimes the winds favored runway 18 and vice versa. He was trying to point out to the accident FO that if coming in on runway 18 the best approach to use was the GPS because it would give vertical guidance, which was nice compared to the dive and drive.

The conversations he had with the accident FO were more or less about personal items. She had horses and was going to meet some friends. She mentioned no issues with UPS or the A300; "she was extremely professional."

When flying into a new airport, he would ask the FO of they had ever flown in there before. If not, he would fly that first leg.

The accident FO had more flexibility than some female pilots at UPS because she did not have children and she had someone who could take care of her horses.

When he flew with the accident FO, she was no more tired than what was normal. He would typically ask the FO he was flying with how they slept that day.

The pairing with the accident FO overnighted in St. Pete and West Palm. She picked up the trip on the outbound from SDF. It was an early show out of Palm Beach that went up to GSP first. He thought they paired up on a Monday night outbound, coming back Tuesday and finishing up Wednesday in SDF.

Prior to the pairing, he had seen the accident FO but did not know her. He had never heard anything about her good or bad. He knew she flew with a commuter before UPS and had some friends from the commuter that worked at UPS. He was told one of them was like her brother "for better or worse." He did not know who that person was. She had a lot of friends.

The accident FO was efficient. She did her job, was on time and was someone you could depend on. She used the procedures as trained.

He thought he flew a nonprecision approach once every 2 weeks, such as when equipment was down. He thought he flew them maybe a quarter of the time. Some people did not fly a VNAV profile approach often. UPS had a briefing guide to make sure that pilots did it right. The briefing was typically done at altitude when there was plenty of time to set it up and it worked well. At low altitude or if there was a runway change, it would be difficult to complete all of the items in the guide unless you asked ATC for delaying vectors or to hold. He thought the briefing guide was in the QRH.

Some pilots had 20 years' experience doing ILS approaches. He did not recall when they introduced the VNAV profile approach but they hit it pretty hard in the simulator. It was different to fly an approach in the simulator vice doing it in the real world. He recalled having to fly a nonprecision approach into St. Pete one time a couple years ago. They had plenty of time to set it up and "it worked fantastic." After that he and the FO did 3-4 more that week. They only flew in the simulator once a year. If a pilot did not go out and practice flying these approaches, there could be reluctance to set one up. He could not recall anyone telling him to go out and practice flying nonprecision approaches. If you did not have adequate time to set it up, you could get rushed.

The callouts for the nonprecision approach pretty much mirrored the callouts for the precision approach, other than the activate final which could be done any time after you load the approach. Activating the approach was not something that was covered often in training but UPS had come up with some slide presentations on their website that was recommended to be studied before coming in for training. You only had to activate the approach for the GPS or VNAV profile approaches. For the localizer you would do the dive and drive. You got to a certain point and would descend to your minimum altitude so your descent rate would be pretty high. And you did not have any vertical guidance. For the VNAV profile approach you would have vertical guidance all the way to the ground. The UPS procedure had them set the MDA in the FMC and 50 feet below the MDA the autopilot would kick off. For the VNAV profile approach, if the MDA was set, the autopilot would kick off 50 feet below that. This was the only approach that did that. The approach was not activated for an ILS approach. He had not personally seen in the simulator or on the line anyone forget to activate the approach and he had never done that himself.

When you activate the approach, the vertical guidance would come up on the Nav which was a secondary screen. You also had a readout of how far below the glidepath you are and you would see the needles start to come in. If the autopilot was in profile mode it would follow it right on down. This would only happen if you armed the profile.

He had never seen vertical speed and profile modes combined. A friend he flew with would fly the dive and drive to the final approach fix even though he could have engaged the profile at a higher altitude. He had briefed something like that in the past.

With a localizer approach, you could intercept it from above. If you waited until you got to the initial point, you would roll the vertical speed and it should capture. He could not remember ever doing it in the aircraft, only in simulator and it was probably a couple years ago.

The PM would be backing up the PF and monitoring vertical deviation during the approach. It should be at zero. A crew would also have guidance with the flight director.

There were no automated callouts about minimums, but only above ground like 100, 50.

Asked how he would know he was at minimums as the PF, he said the PM would call those numbers out. There was a 1000 foot call out, 500 foot call out, approaching minimums call out minimums call out, and go around call out if that was an option. The 1000 foot call out meant you were 1000 feet agl, the landing checklist should be complete and the flight should be on a stabilized approach. The 1000 foot call out by the PM was "1000 feet, instruments cross checked, no flags." There was no call out for stabilized approach, it was assumed.

He last flew with the accident FO about 2 weeks before the accident. She did not mention to him that she was tired during their pairing. Others had mentioned hotel issues but not her. He could not recall if she made the required call outs but if she did not make them he would have said something to her which he did not recall having to do. He did not see the accident FO zone out or not be engaged during the flight.

During the trip pairing they were never "terribly challenged." On a normal flight he would not see any issues if a pilot was reasonably competent. He could not think of any areas for her to improve on as a pilot.

They did not perform any go arounds. Go arounds could be rare and a pilot might go years without having to do one. He had performed two go arounds one week in Denver, one for windshear and a second for being too high on the approach.

He had flown into BHM but he had never flew the approach to runway 18 and he had no desire to. They runway was kind of short. The minimum runway length for landing was 6000 feet and he thought runway was 18 was about 7500 feet. It did not have a precision approach. At 0400-0500 you would be more tired than usual but there was no way to measure that. He was a low risk kind of person and he wanted to reduce his risk as much as possible. The best way to do that was to fly a precision approach.

UPS had a no fault go around policy and no paperwork would have to be filed after doing one.

He made a fatigue call many years ago as a FO. UPS gave him a little bit of a hard time but he knew there was no way he could fly the trip. This experience had not stopped him from making a fatigue call. He tried not to put himself in a position where he would need to call in fatigued. If he was that badly fatigued, he would know it.

He might see a pilot fall asleep in flight twice a year. It was usually a minute or two or three; a short period. He was no expert but have been flying night freight for last 30 years, he would like to say it was uncommon.

He was part of the first 700 pilots hired by UPS. He spent about 15-16 years on the B727 at UPS then transferred to the A300. He agreed that UPS used to not have profile approaches on the A300. He said they had profile mode but it was only used above 3000 feet, not for approaches. He could not recall if they used to activate the profile when cleared for the approach or intercept final approach course.

It was not unusual flying into St. Pete when the tower was closed, that the tower would set up the ILS into the winds at the time of closing but by morning the winds shifted and the ILS to the opposite runway was not turned. In that case, they would have to fly the nonprecision GPS approach. They also had noise abatement procedures to follow. He had flown the GPS approach with noise abatement. He had flown with an FO who entered something below the MDA in the FMC because it would give you glidepath all the way down to the runway. He talked to instructors who said the only thing MDA would do was determine where the autopilot kicks off but you would still get guidance all the way down.

When capturing a path from above, they would roll the vertical speed to 1000 fpm and then hit profile. It would bring them into a descent then immediately pick up the path.

Regarding the PowerPoint review of nonprecision approaches, it was about activating the approach any time after the information was entered into the FMC.

He did not remember if the accident FO used the sleep rooms in SDF. He used them all the time and said it helped, it worked.

Asked how he prepares for an upcoming trip, typically the night before he would stay up as late as possible then try to sleep as late as possible the next morning, like until 1000. It was not easy. His wife was good about not disturbing him and keeping the noise down. He commuted and would try to bid trips where he did not have to. He could either drive or take a commercial flight. He needed to be in the city he was starting from 18 hours before the flight.

The approach can be activated after the information has been entered in the FMC. It would be checked to make sure all of the information inputted was correct. Activating the approach only armed the profile mode which still needed to be selected on the MCP. Profile mode would be selected when vectored on final or if it was a straight in when you got within the vertical deviation. The land button would be armed when cleared for the approach. He would select profile when cleared to intercept the final.

He had heard third hand that a FedEx crew flew in to BHM 6 minutes before the accident and landed on runway 6/24. After that the runway was closed to change runway lights.

The interview concluded at 1110.

6.0 Interviewee: Andrew Franklin Koch, UPS 757 Domestic Captain

Date: November 20, 2013
Location: via phone
Time: 1445 EST
Present: David Lawrence, Katherine Wilson – NTSB; Lawrence Ashby – UPS; Normand Bissonnette – FAA

Capt. Koch was represented by Kathy Yodice, Law Office of Yodice Associates via phone.

During the interview, Captain Koch stated the following:

He had been at UPS almost 20 years. He was initially hired on the B727 as a flight engineer, then was an FO on the B727, then became an FO on the B757 in 1997 or 1998, and upgraded to captain in 2008. He had about 19,000 hours total time, which included military time, and 9,000-10,000 hours of PIC time.

He had flown with Capt. Beal a few times when he first came to the company as a FE and Capt. Beal was the FO on the B727. He could not really recall if it was a reserve call or on a line. It was their only interaction in terms of flying but they remained in contact throughout the 20 years.

He ran into Capt. Beal on August 13, 2013. Capt. Koch was heading out for a morning turn. At the time, he did not know what pairing Capt. Beal was flying. He ran into him and they had a conversation.

They had stayed acquaintances but he had never visited with Capt. Beal in North Carolina. They talked about their families and summer exploits. It was idle chit chat that digressed into schedules and how things were today at UPS. Capt. Beal changed the conversation to that. He asked Capt. Koch if he had a few minutes to talk about schedule because Capt. Koch was the scheduling committee chair for IPA. Capt. Beal asked what IPA was going to do to face the demanding schedules at UPS. Capt. Beal stated that the schedules are killing him and he could not keep this up – day night flops, on a week off a week; he told Capt. Koch he was not getting any younger.

Capt. Beal also commented that the schedules he was flying he would not have considered 10 years ago, but now it was the norm. They talked about that for a few minutes. Capt. Koch brought up that some of the 2 leg segments were now 3 legs and 3 leg segments were now 4 legs. It was becoming more demanding and they were getting older. In general it was hard to establish sleep schedules.

Capt. Koch said he agreed but there were where they were with the contract and "have to do what we do." That was where they left it and he told Capt. Beal he would see him Thursday. The next day was the accident.

Asked why the routes were different from 10 years ago, Capt. Koch said there were more leg segments in the pairings. Instead of flying one leg into the sort and one leg out, it was sometimes

two legs in and two legs out. Trips were also getting longer, with a commercial flight on Sunday and then finish on a Friday. Trips were lasting 8-9 days versus 7 days and some trips were even 10-11 days. Every year the company seemed to ask for a little more.

Capt. Beal discussed getting off the A300. Capt. Koch told him the B757 grass was not any greener. Capt. Beal entertained the idea of changing airplanes. They did not discuss him leaving UPS. As long as they had been at UPS, Capt. Koch had not considered it based on retirement. He could not answer that for Capt. Beal.

He never saw a formal complaint come across his desk regarding schedules from Capt. Beal. He did not get all of the complaints and fatigue reports went to the fatigue working group. They did intermingle with them. He got the general comments.

The conversation on August 13 was not the first time they had chatted about schedules. As the scheduling committee chair he drew that attention.

Asked what IPA was doing regarding schedules, he said they were under the contract that was implemented in 2006. They did try to submit and work on some changes.

The comment Capt. Beal made to him was that "the schedule is killing me." The discussion was lighthearted about personal issues but Capt. Beal seemed more serious and concerned when talking about schedules. He could not say about how Capt. Beal was feeling energy wise when he saw him on August 13.

He did not know FO Fanning. He never had any interaction with her or saw her name until the accident.

He saw Capt. Beal in SDF around 0200-0300 on August 13. He did not know if Capt. Beal used a sleep room. They did not discuss that.

The exterior sleep rooms in SDF were "difficult at best" to get rest and they did carry a frequent amount of noise from the sort. He had heard concerns and also experienced it himself. Also crewmembers came in and out so you hear doors open and close routinely. Capt. Koch lived in Louisville so he did not use them often. He thought wearing ear plugs helped a little but you could still hear the noise.

Capt. Beal mentioned to him that it was harder to establish sleep schedules, and others had mentioned that too. When he came to UPS, the average age was 43 and now it was 51. It was harder when you come off the clock. He had experienced it as well. When you go off duty and come back, you had broken that chain.

The fatigue working group got more of the formal complaints/comments about schedules. But as things came about more frequently then they migrated to the scheduling committee. He was not directly involved in the fatigue working group although they did intermingle. What he got directly were general comments. He was out there more than most and people could approach him. He got comments constantly. Going back to that topic, he said he might get an email. A

formal complaint would be an event report. An email was not a formal complaint. Regarding fatigue issues, when those come across, it might not be about scheduling. He did not see complaints that were not related to scheduling. If he got a report, they would look at the event report, talk with those involved, and take the necessary steps. They would take it forward and follow up with the company.

He had seen a rise in event reports and more occasions to bring pairings to the company regarding fatigue or operational issues. He did not know the exact number of fatigue and event reports that came in.

The scheduling committee had regularly scheduled meetings at the end of each bid, which ended every 56 days. When bid packages were put together and they lines were built, they went to the crewmembers in a "v-file." About a week later after the v-file was sent, they would meet with the company and there would be a scheduling advisory board meeting met which included representatives from IPA and UPS. They might discuss issues with the current bid, how they exchanged details and knowledge back and forth, or pairings from the previous bid. They voiced their concerns about the bid process, line construction, the pairing itself or the pairing process.

They had duty or trip rigs on pairings which varied from pairing to pairing. They did have trip rigs, domestic and international. Rigs were based on the contract.

The number of pilots that talked to him about the schedules varied. It depended on who he ran into at night. They were non-formal conversations in the crew room. People knew they could come up and approach him with concerns. They would make comments like this trip was terrible, or why are we still flying this? It was not formal in any way. They knew him as a colleague.

He thought the UPS/IPA contract was in negotiations as of December 31, 2011.

He had flown a non-precision approach and how many depends on the year. He would say they were getting more frequent than they used to be. He flew a lot, mostly morning turns, and did not think it was a big deal flying them. It was just part of the procedure. He could not speak for the Airbus but the training they received for the B757 prepared him to fly the approach.

He had done a go around and the last time was probably 3-4 years ago. He thought it was because an airplane did not clear a runway. He had not done one that was crew initiated, only one directed by the tower. He was not sure if he had gone around for not being stable. This was going back about 5 years.

It had been a long time since he flew with Capt. Beal but said they had never been in a situation to go around. He found it hard to wrap his brain around how Capt. Beal got into the accident situation. He said Capt. Beal was competent and professional, and would not have taken a risk in any situation that he would know of. Capt. Beal left a good impression on him. But when they flew together, neither he nor Capt. Beal were in a PIC role.

No one had ever recommended to him that he go around but if that happened, they would have done a go around.

Regarding the scheduling committee meetings every 56 days, the outcomes depended on the topics for the meeting. If they saw something that was deeming to need change, they discussed it. It was the company's decision to make a change or not. Typically it depended on the pairing. If they brought something forward and it was a cost neutral fix, they got the change. There was one pairing that was on the books for 2 years. Pilots would say it was fatiguing. There was lots of data but the company had not changed it. It was an MD-11 pairing out of ANC. He thought it was an Oakland-Ontario-Anchorage pairing where they landed at 0630. Coming back to the north especially on that last day of the pairing was very demanding. He could not force changes; he had brought forward solutions but the solutions were costly.

They looked at pairings from an aviator's standpoint and tried to be objective. He knew they were moving into the FRMS system and were going to be at the front line of that. He hoped they would always be objective and were not putting other issues ahead of other safety or fatiguing issues. He hoped they were being objective with their data and their science.

He did not know the percentage of flights that were 1 leg in 1 leg out versus now 2 legs in 1 leg out, but he did know that it had increased. The data shows that more legs were being added into the sort. Shorter overnights were also becoming the norm as were 9-10 hour duty days.

Domestic pairings were more demanding. He had not flown international but that was what he was seeing from the feedback.

He did not recall seeing a 14 day hard line, but maybe one. With a 10-12 day trip you would get a 72 hour pairing. Reserves were on for 15 days. By contract, per bid period they were guaranteed 10 days off.

Some 10 day trips had a long weekend layover; some started on Friday or Saturday.

He did not recall any complaints specific to the accident pairing but rather the 3-4 leg pairings.

He did not think there were more scheduling issues with the A300 over other fleets, it was just all domestic pairings in general.

To conclude, he said he tried to be as candid as he could be. He wanted to speak up for Capt. Beal who came to me for help and "help didn't come." He hoped the FRMS (fatigue risk management system) program would be successfully applied.

The interview ended at 1540.

6.1 Statement: Andrew Franklin Koch, UPS 757 Domestic Captain[1]

CPT Whyte:

[1] Statement provided to the NTSB by Captain Steve Whyte from the UPS Independent Pilot's Association.

I would like make you aware of a conversation I had with CPT Beal on Tuesday 8-13-2013 at approximately 0730Z.

I have known CPT Beal for about 19 years, we flew previously on the 727 together and have remained friends since that time. We ran into each other that morning Tuesday 8-13 and had not seen each other since late spring. We spent about 15 minutes catching up of family updates and just idle chatting about the summer adventures. After that we started discussing the current state of the schedules on the A300 and the 757SDF and in general. I am also the IPA Scheduling Committee Chair, which most evenings in the sort my conversations with fellow crewmembers end up on this topic.

This evening Cerea asked me if there were any plans in the near future about cleaning up the current schedules on the A300. We discussed the degradation and demands of the pairings and lines on the domestic schedules and the fact that they are becoming to fatiguing regarding the additional legs being added on the majority of the pairings and lack of continuity in general of the lines. I told him that the current language does not allow for the IPA to make a lot of changes to the pairings and the only line continuity changes we make have to be cost neutral. Cerea then told me that the current schedules are getting just to demanding to do on a weekly basis. He stated, " These schedules over the past several years are killing me", also that " I am bidding on lines that 10 years ago I would not even consider flying, but with where we are contractually we have no choice, but to fly them". I agreed with that statement and said basically it is the same on the 757SDF, and hopefully we can gain some relief in the next contract. Cerea was also saying he was thinking of bidding off of the A300 because it was just becoming to fatiguing. We sat and talked about the 3 leg nights back and forth through the sort and talked about how hard these pairings had become. After a brief exchange again about families and life in general, we parted and said see you later in the the week. I was off Wednesday but was due to fly back out Thursday morning and would see you then. That was the last conversation I had with my friend, and was saddened when I heard the news Wednesday morning.

I know you all are gathering some background information and am not sure if this is pertinent but I wanted to pass this on to you and your committee.

Thank You

Andrew Koch
757CPT
IPA Scheduling Committee Chair

7.0 Interviewee: Todd Croly, UPS B747-400 First Officer (FO)

Date: November 20, 2013
Location: via phone
Time: 1550 EST
Present: David Lawrence, Katherine Wilson – NTSB; Lawrence Ashby – UPS; Normand Bissonnette – FAA

FO Croly was represented by Kathy Yodice, Law Office of Yodice Associates via phone.

During the interview, FO Croly stated the following:

His name was Todd Eric Croly, and he was an FO on the B747-400 for UPS, based out of Anchorage, Alaska (ANC). He had been with UPS for about 7 years, and just started his 8th year on November 16, 2013. He estimated that his total flight time was about 12,000 hours, and he was hired at UPS with about 10,000 hours. He had no Pilot in Command (PIC) time at UPS, and out of the 12,000 hours he estimated he had about 7,000 hours PIC time total. He was hired at UPS as a DC8 FE, flew as an FO on the B757/767, and then bid onto the B747-400 as an FO about 4.5 years ago. Prior to UPS, he flew for Comair (Delta Connection) for about 12 years. Prior to Comair, he had about 3,000 hours as an instructor and flying corporate.

He knew Capt. Beal from commuting up to work from Charlotte, North Carolina (CLT) to Louisville, Kentucky (SDF). He usually would run into one or two UPS guys while commuting, and he first met Capt. Beal about 7 weeks before the crash. During his commute with Capt. Beal, they talked about work, and Capt. Beal told him he was commuting up to start a trip out of SDF. Capt. Beal told him his schedule on the Airbus was "brutal" and the line hours had increased quite a bit, up to 91 hours. FO Croly said the hours were not that high on the B747. Capt. Beal told him UPS had also increased the number of legs per trip, and Capt. Beal said "I can't do this until I retire because it's killing me." FO Croly was not shocked by this statement as he had heard similar things from others who flew the Airbus. That was pretty much all they talked about. As far as knowing him, that was the first time he had met the captain and he did not know him on a "friendship level." Capt. Beal was very open, seemed like a nice guy, and was friendly; he just seemed a little frustrated, having been with the company that long and unable to hold a better schedule. This was the first and only time he met Capt. Beal.

He had also heard similar comments from other Airbus pilots, usually on his commute. Quite a few guys he commuted with were on the Airbus, and more and more would complain about their schedule. Some had bid out of SDF to ANC and a different airplane looking for a better schedule.

He would bid back and forth from a line and reserve in ANC because reserves did not get called out that much. For the last two bids, he bid a line of flying. The type of flying on the B747 was different since they we were airborne all day long and would then go to the hotel to get rest. He once almost had to call in for fatigue. He had flown from Mumbai to Cologne, had 16 hours of rest, flew from Cologne to Shenzhen, China, for 18 hours rest, ground shuttled to Hong Kong then flew to ANC. This was done all in 3 days. When he landed, he was tired and fatigue. It did not hit him how tired he was until he got back and tried to call his son and dialed his wife instead, then dialed a buddy and kept getting the wrong number. He said being fatigued was "like being intoxicated." Prior to starting the leg, he had proper rest, but afterwards it hit him how tired he was, and "your mind just doesn't operate clearly." That event happened about a month ago.

He had not made a fatigue call at UPS, but had at Comair. At UPS, he had not needed to call in fatigued. He thought UPS had a good fatigue policy. He had not heard talk among pilots about

consequences for calling in fatigue at ups, and had flown with guys who had called in fatigued and they had not had any problems nor were they intimidated about calling in fatigued. He had never filed any event report after the previous event when he was fatigued, but said he should have when he got back to CLT.

Regarding what the accident captain had said to him during the commute together, he said the captain mentioned just how demanding the schedules were, and the number of legs they were doing, which was up to 3 legs per night.

He thought the union heads had sent out something on how to manage their rest, but was not sure if it was from the union or from UPS. He did read it, but it was a while ago. He skimmed through it. Everyone has their own way of dealing with how to get proper rest, and he did not have a problem getting rest. His technique was to look at how long the layover was, and see how many sleeps (7-8 hours) he could get in. If the layover was like 3 days, he did not worry about his sleep until he got closer to departure time. If he was tired when he arrived, he would go to sleep. He planned his rest to get 7-8 hours of rest prior to the flight. Sometimes on the shorter overnights he could only get one rest period in, so he might take a 2 hour nap, stay up for 16 hours, then sleep until he had to leave for the airport. He said "everyone does it differently." Sometimes he would force himself to stay up to make sure he was tired to get the full sleep before the trip. He said "I've worked it to manage my sleep."

He knew FO Fanning, and they were in the UPS new hire class together. They were very good friends. FO Fanning was his simulator partner on the B747-400. The last time he spoke to her before the accident was about 7 months ago. She did not mention anything about schedules or feeling rested. When he saw her it was in the cafeteria, and she was just finishing up IOE training on the A300. They did not talk about schedules. He told her he was shocked she changed airplanes, and she said she was tired of the commute to ANC. After that meeting, he did not have any contact with her.

He said that everyone that knew her, loved her. She was fun, outgoing, just like another guy, and he never heard anyone talk bad about her.

Regarding his last conversation with Capt. Beal, he said it was 7 weeks before the accident. They were in the galley area in an Airbus. He did not recall if Capt. Beal napped on the commute to SDF.

For UPS pilots to voice concerns about their schedules, an event report could be filed online. The appropriate parties would review the report. He had not filed an event report for schedule issues, but he had done it for an ATC issue before. He said someone would always respond to the pilot following an event report

He was a captain on the CRJ at Comair for about 7 years.

He had conducted a go-around at UPS once before when landing in Seoul with an approaching typhoon. The winds were blowing and it was a direct crosswind, 40 knots gusting 45 knots, which was beyond their limit. They went around, knew the typhoon was getting closer, and

diverted to Japan since they had enough fuel for Japan. He also had a go around on his last trip going into Cologne, with gusty winds up to 45 knots at 90 degrees to the runway. They elected to go missed approach and landed into the wind on the shorter runway but with winds right down the runway. At UPS, he did not recall ever having to suggest a go around to another crewmember. UPS had a policy that if anyone said "go around," you went around. He had not been in that situation before. He had not heard any talk in the crew room about go arounds, and just knew about the UPS "no questions asked" policy regarding go-arounds.

Regarding FO Fanning, he was her simulator partner, and said she was a little weaker than what he had seen from most pilots. He said "she was not always on top of her game." It was "techniques stuff." V1 cuts were a little bit of an issue with her, and she had to do extra ones. Her CRM was really good, and they got along really well in the cockpit. She did not have to do any extra simulator sessions, and she made it through the program fine. She did not have a whole lot of flying experience, and to him, it showed. When asked if he thought she would have made a go around call if she had to, he said yes, she was tough skinned and would not have a problem making that call.

He could not recall if he had any fatigue training in his last CQ, and he was on a 6 month cycle on the B747, with his CQ6 coming up, so he did not know what it would have in it.

On the trip he had where he said he was fatigued, the company did not ask him to wave the contract to complete that trip. They had to give him 18 hours minimum rest. The rest in Cologne he thought was about 17 hours, possibly 15 hours. Everything was right at the reduced rest minimums. In China, they could not reduce the rest. The trip was legal, and he did not have to wave anything to make the trip legal.

For his final thoughts, he was thankful for getting to speak on behalf of Capt. Beal and the FO, and hoped he could be of help. He added that he had noticed that the B757/767 domestic trips had been bad, as well as the Airbus, with multiple legs. He said it "seemed like it's gotten worse, and more people are complaining." They had about 90-100 guys retire each year, and their flying time had remained the same, and said "the company seemed to be stuffing the lines with more flying, more legs, more hours." The pilots were "feeling the pain." He noticed that the Airbus guys seemed to be getting hit harder. He flew as FO or IRO on the B757/767, and remembered hearing that the FO bidding number one or two said the schedules were so bad, he bid over to ANC.

The interview concluded at 1625.

7.1 Statement: Todd Croly, UPS B747-400 First Officer (FO)[2]

To Whom it may concern,
Hello my name is Todd Croly. I have been a Pilot at UPS for just over 7 years now. I have a son that lives in Charlotte North Carolina, but I am based in Ancorage Alaska. I have been commuting from Charlotte North Carolina for almost 4 ½ years so that I can spend time

[2] Statement provided to the NTSB by Captain Steve Whyte from the UPS Independent Pilot's Association.

with my son. Over the last 4 years of my commute out of CLT I have run into many UPS pilots on our flights up to SDF. I had the honor about 7 weeks ago to meet Captain Cerea Beal, Jr. Capt. Cerea Beal, Jr. and I were both jump seating from CLT to SDF for work 7 weeks ago. Capt. Cerea Beal, Jr. was telling me how "brutal" his schedules have been on the Airbus 300-600. This isn't the first time I have heard pilots who fly the Airbus at UPS complain about how awful their schedules are.
Capt. Cerea Beal, Jr. also said that he had been with UPS for 23 years and a lot of the lines were very bad with credit hours ranging from 89 to 91 hours. Capt. Cerea Beal, Jr. said that even though he had been with UPS for 23 years he couldn't really hold anything decent. He also said to me "I can't do this until I retire it's killing me". I was not surprised at all when I heard this from Capt. Cerea Beal, Jr. Like I stated earlier I have heard many other UPS pilots on my commute from CLT to SDF complain about there schedules and even leaving the Airbus to go fly another airplanes at UPS.
When I heard about the UPS crash in Birmingham Alabama I was in shock like most people. I just sat back and waited to see what went wrong. Now I am learning that there was possibly nothing wrong with the airplane. The first thing that cameinto my mind was what Capt. Cerea Beal, Jr. said to me about 7 weeks ago. And that fatigue was probably going to be one of the causes of this crash.
UPS has 44 guys on the street as furloughed pilots, plus we have about 90 guys that retire every year. Since our pilot group is shrinking and our flying remains about the same we are short pilots. Instead of UPS recalling our pilots on the street and picking up some of this flying on the airplanes that are feeling the pain of the extra hours of flying and extra legs, UPS choses to stuff more flying into the lines making a lot more pilots feeling fatigued.
We all know that fatigue is a big issue and it doesn't matter if you are a passenger Airline Pilot or a Cargo Pilot, we are all the same. If UPS continues to stuff the lines with more flying on us as our pilot group continues to shrink every month, it's just another disaster waiting to happen.
Feel free to contact me at any of the below contacts if need be. Thank you for your time.

Todd Croly
UPS GEM ID: XXXXXX
Email: XXXXXXX
Addresses:
Todd Croly
XXXXXXXXXX

8.0 Interviewee: Donna Hall, UPS Flight Control Shift Manager

Date: December 12, 2013
Location: via phone
Time: 1130 EST
Present: David Lawrence, Katherine Wilson - National Transportation Safety Board (NTSB); Larry Ashby - UPS; Normand Bissonnette – Federal Aviation Administration (FAA).

Ms. Hall was represented by Mr. Jim Hamilton, Air Traffic Systems Manager.

During the interview, Ms. Hall stated the following:

Her name was Donna Jean Hall, and her current title was Flight Control Shift Manager. At the time of the accident her title was Flight Control Training and Standards. She became the flight control shift manager in October of 2013. Her roles and responsibilities in flight control training and standards were training of dispatchers and standardization of their procedures. They would follow the flight operations training manual (FOTM) and the curriculums set up in that manual. She had four supervisors and one training dispatcher who assisted with the curriculum. In the FOTM, they had a fall and spring recurrent for dispatchers which was required by the FARs. Recurrent was for 1 day in spring and 1 day in the fall for a total of 2 days each year. Numerous subjects were covered.

UPS hired dispatchers from the street, and looked for at least 3 years' experience with a current dispatcher's license. Having a private pilot's license was considered a plus. Once the dispatcher was hired and passed the drug screening, they would begin the training curriculum. Initial training covered general subjects such as all equipment types and flight planning systems; it was all spelled out in the FOTM. After initial classroom training, they went on the floor for specific training on the job and "apply what you do." They were required to spend a specific number of days on the desk, as well as go through a written, oral and practical exam. The oral exam was 9 hours long, and they would go through the entire training curriculum that they had been trained on in the FOTM. They did performance problems, looked at MEL problems and explained what they would do and how they would apply those penalties and restrictions. It was a "rehash" of the written test just in an oral format. The practical test was where the dispatcher sat down with one full time supervisor and dispatched "live" flights under the name of the dispatcher who was giving the practical test, which lasted 9 hours. There was a management team on the "bridge" who had the dispatchers under constant supervision. There was nothing specific written in the manual about continued supervision of newly hired dispatchers, but they had management on the bridge that was always watching. They had one full time supervisor and another dispatch manager on the bridge. There also was a Lido supervisor on available 24/7 who was management and had a dispatcher certificate. UPS had a total of 67 dispatchers, and all were members of the TWU . The total number working at any one time varied with the time and the shift. They would have about 14 for the second shift, 14-15 for the third shift, and about 10-12 for the day shift. This would also change during peak season. Dispatchers worked 9 hour shifts, which included 4 days worked, 3 days off, 4 days worked and 3 days off. They complied with the CFR's , but UPS was even more restrictive than the CFR's regarding shift requirements and duty rest.

The FAA came over quite extensively. There was an FAA evaluation for dispatchers, and she said "we have friends at the FAA" who would sit in the UPS operations and conduct EPI's and other observations including surprise visits. They also included conducting EPIs, SAIs and observations. The FAA would also sit in on one or two of the recurrent classes. These were individuals from the local CMO office.

She had been in flight control training and standards for at least 5 years. When the company made the decision to be an airline, UPS sent her to private pilot ground school, she got her

license as a dispatcher, and then worked under a seasoned dispatch manager. She had been on the operations side for a little over 25 years. Her date of hire with UPS was September 29, 1978.

When asked what a dispatcher did at UPS on a shift, she said "safety is paramount." When the dispatcher came in, he would become familiar with the weather, and reviewed MELs and restrictions on the aircraft, and NOTAMs that could affect safety of flight. Once that information was reviewed, he would sit down and review the information with the dispatcher who relieved him to make sure nothing was missed. He would then take over the flight following and plan his flights. Domestically, they planned to have a dispatcher work no more than 15 flights that were airborne at any one time. They considered the airborne flights are much more important to safety since they were airborne. Dispatchers were qualified for both international and domestic operations. They had dispatchers that only worked international flights and dispatchers that only worked domestic flights. Relief dispatchers would work both domestically and internationally. The domestic and international dispatcher positions were bid for once a year. If a dispatcher bid an international dispatcher line, he would have to go through additional international training prior to working the international desk. Dispatchers were qualified on all the aircraft UPS operated.

Regarding the tools the dispatcher had available for him to do his job, she said they had a flight planning system called Lido. The dispatcher could also use Flight Explorer for flight following. The Aircom server was used for messaging, and they had a meteorological department as a resource. They used Jeppesen (E4W) for charting. They had applications for hazmat on aircraft, WSI for graphical flight following, and Aviation Sentry for global weather and lightning products.

Dispatchers could speak to the crew by using the Aircom server through the ACARS system, Satcom on most of the aircraft, and can also use Jetcom while in Europe to call the aircraft. Dispatchers spoke with line pilots "every night". The previous evening a dispatcher was in communication with a crew regarding icing conditions, and the dispatcher used the Satcom and Jetcom systems to have a conversation with the crew. The communications would be available to the dispatcher while he was at his desk, and they also had a phone patch capability. Dispatchers were encouraged to contact flight crews through their training and while on the floor. Sometimes with ACARS, the messaging was not clear in the written form, and they encouraged dispatchers to talk directly to the crew to get the verbal feedback. UPS pilots contacted dispatchers "all the time." UPS had changed their process for items "after secured for flight" when there was a problem the dispatcher and crew would want to speak about. Generally the conversations were related to clarifications of an MEL or flight plan so that both would be on the same sheet of music.

UPS used Jeppesen charts, and the dispatcher could view Jeppesen charts through their E4W electronic link to the charts, or they had copies on the floor of various enroute and area charts in paper form. Regular charts were electronic. To access the Jeppesen charts, the dispatcher would have to manually pull the chart up on his screen by requesting the specific airport on a separate application; Lido would not pull them up. Dispatchers looked at approach charts "all the time," and could be to verify NOTAMs, to see what approaches there were, or in low weather visibility conditions to see what approach they could use to fly into the airport.

METARS came from Lido but she did not know where Lido got its METAR information from. She was not aware of the NOTAM source that the Lido system used. Dispatchers had outside sources they could access to obtain NOTAMs, but they were encouraged to use the Lido system for their NOTAMS. The flight planning system they provided the dispatchers was a tool to plan a flight and obtain weather and NOTAMS for departures and arrivals.

There were multiple sources available to the dispatcher to use to contact the pilot if the dispatcher saw a problem with an approach to a runway at a destination, such as ACARS. When asked if there was a requirement to contact the pilot if there was a problem with an approach, she said yes, and they would probably provide that information through a pre-brief. They could put a note on the flight plan to have the pilot call him to discuss the issue. The dispatcher could also call the flight administration department in the crew room and have the crew call the dispatcher. The dispatcher had a 50% joint responsibility requirement from the CFRs to ensure both were aware of what was going on.

She was not familiar with the weather source of information used by the Lido system.
She was in flight control when they started using the Lido system. They wanted to integrate all the systems they were using into one source. There were a few growing pains with implementing the Lido system, but that would go with any new system. They wanted to ensure the safety and reliability of the system. They had a monitoring tool designed by the Lido system to meet the requirements for domestic carriers to have alerts to the weather and changes to NOTAMs, and they had some duplication problems with the METARS. They were able to remove the METARS that had the remarks section on it, and stopped the publication of the METARS remarks. Her understanding of the problem was that the Lido system received METARS with remarks and METARS without remarks, and the way the system responded was with duplicate information. She believed it was a software fix, and for the Lido system, the only way to fix the issue was to drop the METARS with remarks. When asked if there was any weather information produced by the Lido system that included the remarks section of the METAR, she said no. They specifically wanted to ensure the weather information received by the crew and used by the dispatcher were exactly the same.

There was a weather source on Flight Explorer that the dispatcher could use to pull up METARS with the remarks attached if the crewmember called to request the remarks. She could not recall at any time a pilot calling the dispatcher requesting the remarks section of a METAR.

When asked if the remarks on a METAR were important for the pilots to have, she said “they are not controlling” and their importance would “depend on the situation.”

Dispatchers did receive dispatcher resource management (DRM) training. It was covered in their FOTM. They just recently had a class for new hires. It told them how to use all the resources and tools available to them to make the best safety decision. They had segments of DRM in recurrent training. They had stumped dispatchers with questions to dispatchers out on the floor to encourage them to think and stimulate their thoughts. The dispatchers did not conduct DRM training with the pilots.

Dispatchers dispatch to airports not a runway, and the Lido system did not automatically bring up Jeppesen charts for the dispatcher to view. The runway information Lido would pull up was information only, and the dispatcher would have to specifically pull up the E4W application to view the Jeppesen charts.

When asked if a destination airport only had one runway available would an alternate be required, she said it really depended, and it would fall under the 3/2/1 rule of the CFRs. If there was only one approach to a single runway, it would still go back to the CFRs. If there was one approach to that runway that the dispatcher was informed was illegal for the runway, she said the dispatcher would "absolutely" be required to inform the crew.

The interview concluded at 1220.

9.0 Interviewee: John "Jack" Heinlein, FAA, Aviation Safety Inspector (ASI) – Dispatch

Date: December 12, 2013
Location: via phone
Time: 1300 EST
Present: David Lawrence, Katherine Wilson - National Transportation Safety Board (NTSB); Larry Ashby - UPS; Drew Middleton – Independent Pilots Association (IPA); Normand Bissonnette – Federal Aviation Administration (FAA)

Mr. Heinlein was represented by Brooke Lewis, FAA legal counsel (via phone)

During the interview, Mr. Heinlein stated the following:

His name was John Albert Heinlein, Jr., and he was 67 years old. His title was Aviation Safety Inspector – Dispatch on the UPS certificate at the FAA CMO[3] in Louisville, Kentucky. He had been in that position for about 4.5 years. Prior to the FAA, he worked for USAirways for 41 years; the first 10 years he was working on pilot and dispatch ratings, also working weight and balance and operations, and from 1978-2009 he was a dispatcher. He had a commercial pilot's license with an instrument rating, multi-engine land. He was not current. He later got his dispatcher certificate in Flushing, New York, at the Airline Training School, run by a Pan Am dispatcher, in 1978.

He did not know how many FAA dispatch ASI's there were, but most large carriers had them. There was one with American Eagle, and American Airlines and United Airlines. Express carriers also had them that had certificate and school oversight.

His roles and responsibilities included oversight duties of dispatch. He would occasionally go to line stations to conduct inspections. He would be on the SAI[4] team and they would work

[3] Certificate Management Office.
[4] Safety Attribute Inspection (SAI) Self Audit. The Air Transportation Oversight System (ATOS) SAI tool is used to collect data to determine if the design of a safety critical process can be approved or accepted. Source: FAA.

together. He also was responsible for conducting EPIs[5] specific to his area. He also provided input on ASAP[6] and VDRP[7] participation. He had oversight of the dispatch office. UPS dispatchers were part of the ASAP program, and he was on the ERC.[8] He would do ramp inspections on some airplanes, and would meet arriving flights to check on arrival fuel loads and talk with the crew.

The UPS dispatch facility was a large office that included being part of the contingency department, similar to the passenger or revenue control department at a passenger airline. They had maintenance control which dealt with mechanics and MELs, aircraft routing, and dispatchers. They also had a meteorological office. The Lido flight planning system also had a support office. The crew schedulers were also located in the same area. On the bridge UPS had a manager and supervisor of the dispatchers. They also had a crew scheduling manager on the bridge. The dispatchers worked either domestic or international in various theaters, and the workload was distributed. They had their own areas to dispatch, but they were all located close together, and the DRM (dispatcher resource management) was pretty good there. There was always someone next to you to help you out. He said it was "pretty well oiled, very similar to US Air." He sometimes went over there several times a week or sometimes once a week, and occasionally during off hours. During bad weather or during peak season, he would go watch the operation. He went through the UPS training when he first came on with the certificate, but had not gone through the training for all the fleets because FAA work took priority. He would sit in on at least one or more recurrent classes and the initials "quite often."

The initial training course for dispatchers was aligned with the regulations. The most impressive part was the "several hundred hours of on-the-desk training with a qualified and "super qualified" dispatcher." The number of hours of training is right aligned with the CFRs.

The FAA had EPIs and SAIs for the training of dispatchers. Dispatchers were required to have a competency check each year. In the training, their flight standards people were well qualified dispatchers, and they did not rotate them often in and out of desk jobs. They had very stable staffing. They had a stable work environment. They had check dispatchers, who were part of the flight standards folks. They did not a have a random set of questions for the evaluations. It was a checklist of questions, rated, and the dispatcher was asked to look up things. They said if they were too busy, they could do it another day to ensure the flights were getting handled. They checked the accuracy of fuel burns, and debriefed afterwards. A flight standards or management person might also sit with that person and ask questions while observing the dispatcher's work. It was not just a random set of questions. If the evaluator thought the dispatcher was more deficient, he would sit with the person longer to train them. They would not pass anyone who was not ready to be passed. He had sat in on those evaluations. The evaluators would look at the tasks and the subject matters, and if several dispatchers were having problems with identical areas, they would look at the training on those areas, so it acted like a data collection tool for the training program.

[5] Element Performance Inspection.
[6] Aviation Safety Action Program (ASAP) is a voluntary safety reporting system.
[7] Voluntary Disclosure Reporting Program.
[8] Event Review Committee.

What he liked about ASAP at UPS was dispatchers did not get pushback when a report was submitted, and the company worked well with the FAA to close any holes. Some of the ASAP reports were "I should've done this or that" or other small infractions. He said ASAP had a good effect.

The specific issue he had was that UPS was an airline owned by a much larger company, which was a different entity from aviation. In the past, there had been some pressure about moving flights. From an overview standpoint, it had gotten much better, and there was good cooperation from management, but it still had a ways to go. ASAP was one of the greatest things to solve some of the problems.

He said they did not have a "really formalized" remedial training program for dispatchers at UPS. A flight standards guy would go over weak areas with a dispatcher following an evaluation. It was tailored to the individual's short-comings, and was not formalized. He said "passing is not good enough" at UPS, and dispatch was a "different world." Dispatchers always had support around them all the time. He did not know of a specific "bust rate" for dispatchers or if any had failed an evaluation, and said UPS would likely tailor the training for remedial needs. UPS did not hire inexperienced dispatchers. Overall they were a fairly sharp group.

The FAA (AVP900) just completed a NASIP[9] inspection on UPS, and they looked at training and looked at dispatchers and had no findings. He did not believe UPS had a failure rate for dispatchers. He said dispatchers did not train with pilots, although there might be a time a pilot would come in and talk to the dispatchers about various topics like crew rest rules or sleep deprivation, but that was rare.

Dispatchers at UPS did conduct jumpseat observations, and they must get 5 hours every year. Sometimes they would go out more often if they wanted to take a personal trip. The hour requirement could be reduced if they observed more than one landing, and it was outlined in the CFRs.

UPS had a segment on DRM each year. The required training for dispatchers was broken up into two sessions. One session was in the Spring and one in the Fall, and DRM was always discussed. It was not a full DRM course, but rather a "what would you do" training session.

Regarding problems with the Lido software program, he said there were "problems with every flight planning system out there." They could be very good, but could only do what the dispatcher told it to do. It knows hemispheric rules and will do what it is told to do. Occasionally if the dispatcher wanted to build a route, it could actually build a route and come back on a U-turn because of an error in the route. There were inherent problems with all software. FAA cannot govern what type of flight planning software a carrier could use, they could only review it. Lido did give the dispatcher a whole lot of information. It would flag if an alternate was suitable or when it went unsuitable. Sometimes there were so many messages that a dispatcher could miss one, especially when busy. There were some manual things in Lido that they had to do, for example ETOP diversions required some manual entries. The Lido system was a good

[9] National Aviation Safety Inspection Program.

product, but the dispatcher still had to pay attention. They had a good Lido support team to assist them.

When asked how many flights a dispatcher would work at any one time, he said it was difficult to say, and the workload committee would split up the workload. It could be between 10-15 flights or fewer, depending on the workload. The FAA had looked at the workload committee, and it was patterned after the one at USAirways. Workload management for a dispatcher was based on a point system to determine workload. They would divide it up from there, and when they hit a certain point value at a single desk, they began to pass off assignments to another desk, or the union would work it out with management. There was a lead agent who was balancing out the workload each day.

He said one person told him about an ASAP she submitted, and it said she messed up, but it was not because she was too busy. They handle the workload well. He was comfortable with their workload.

He said dispatchers at UPS did communicate with flight crews, and he had seen that when they [the FAA] would fly on UPS enroute.

When asked if UPS dispatchers had an overreliance on automation, he said they would not dispatch a flight without the Lido system, and they would rather shut the operation down. They did not have a backup plan to operate without the Lido system, and could not legally conduct a manual dispatch of a flight since their procedures did not allow it.

He did not know of any limitations of how the weather was depicted by the Lido system, and said the Lido system had like a "tunnel" around the flight. It provided a big weather package because there was a lot of information to disseminate. The information was updated and correct, in his opinion. He did not hear of any problems with the Lido system updating, but they also had access to other weather sources.

When asked if the METAR information sent to the crews via the Lido system included the remarks section, he said it included the full National Weather Service (NWS) text, and was "complete weather, and included the remarks." To his knowledge, he remembered seeing the remarks on the METARS. He could not recall if he had seen the remarks on a METAR sent by the ACARS system. The briefing package was NWS data. The top part of the briefing package was the release, and below that was the briefing material that included the weather. If a dispatcher sent him something, he really never studied that on the remarks. The last time he looked at a UPS dispatch weather briefing information was just before Thanksgiving. It would be a surprise to him if the METAR remarks were not being included in the weather, but he would not necessarily look for those remarks. He said the remarks section of a METAR could include important information for the pilot.

It was hard for him to remember, but he recalled that the dispatcher training did have a DRM class in there. It was a formal course that they were being scheduled for. He had not been able to attend that course. He believed the DRM training was about an hour or two long, and covered the tools available to the dispatcher and encouraged them to use all available resources. They also

gave examples for dispatchers to go through. The course was every bit as good as what he received at the airlines. They tried to get the dispatcher over the hump to not being afraid to ask for help. If you had a problem, you should ask someone around you. He said overall it was a good program. They received 18 hours of DRM training in their initial and 1 hour in recurrent.

He was not involved or made aware if a dispatcher did not pass a practical test. Before UPS gave them the initial signoff, they worked 6 weeks with a "super" dispatcher who helped and coached him. Sometimes the guys needed a few more days, and UPS provided it.

When asked about the NOTAM sources used by Lido, he said he was not sure but it may have been NDC.

He had attended meetings with the Lido team to discuss issues with the software, and the dispatchers would ASAP it and he got the information from them. Lido support groups talked to UPS, and they were the ones to teach the Lido system to the dispatchers. Sometimes they had short down times to load data into the system. They did not have another flight plan system to use. He said the Lido system was stable, and back up programs were too costly. He was not aware if the pilots were notified that the remarks section of the METARS was not included in the briefing package.

He did not know the accident crew, but did know the dispatcher. He sat in on the class when the dispatcher was in initial training. For their hiring process of dispatchers, they tested the dispatchers in various ways during the hiring process, including asking questions. He watched the classes, and looked at the people and how they grasped the material and how it was presented. This particular dispatcher had experience with a supplemental carrier. He did not sit down and make a big study of it, but was impressed with the class. He was satisfied with his overall performance, even though he did not observe his competency check. He said maybe he needed to do that in the future more often. There was one class who were present employees in the class, and who did not have much experience, especially with weather. They spent extra time for those students. He thought the dispatcher was "ok."

He had not reviewed the accident dispatcher's personal records. He had looked at dispatcher records as part of an EPI check in normal oversight. There were not as many areas to look at compared to the pilots. He did not have any issues with the dispatcher.

Final thoughts: Over his years starting with steam gauges, he did not think subparts N, O, and P had kept up with present technology. There were so many aspects to dispatch, including safety and economics.

AQP had brought up the level of competency for dispatchers. UPS was looking at going AQP to train to proficiency for dispatchers. It would be a good thing in the future.

He said flights were dispatched to an airport, not a runway. At UPS, they planned for wet runways.

He would anticipate that a dispatcher who saw the only approach to a runway being illegal would advise the pilot. If there was no available runway then you could not dispatch to the airport. If the closed runway was to open at a certain time, he would expect the dispatcher to advise the pilot to possibly delay the arrival. He believed that the LOC18 approach to BHM was illegal because the chart said the approach was not available at night.

The interview concluded at 1430.

10.0 Interviewee: John Hall, Flight Control Shift Supervisor, UPS

Date: December 12, 2013
Location: via phone
Time: 1505 EST
Present: David Lawrence, Katherine Wilson – NTSB; Larry Ashby – UPS.

Mr. Hall was represented by Jeff Chestnut, UPS Flight Control Standards Manager.

During the interview, Mr. Hall stated the following:

His name was John Robert Hall, and he was 60 years old. His title was Flight Control Shift Supervisor. He had been in that position for 7 years, and was previously a flight training general subjects instructor. His date of hire at UPS was October 4, 1999. His previous experience included enlistment in the Navy in 1971, some flying as an air crewman, then went to school, and then back to the Navy as a Navigator. He got back into aviation in 1998, but was not a pilot. He retired from the Navy in 1995. He got his dispatcher's license in 1998, and left the training department to go to the Flight Control department as a supervisor.

His roles and responsibilities included supervision of the Flight Control department, shift functioning and operational authority, identify and analyze the operation, and looked at their worldwide operations. He looked at the security of the operation, and verified that dispatchers' flights were assigned properly. They looked at any abnormal incident, and he oversaw that. He looked at adverse weather to ensure they were planned for that, and made sure they were properly staffed.

He used the Regulatory Compliance Procedures Manual (RCMP) for guidance in conducting his job. Training was defined in the FOTM. UPS had a total of 67 dispatchers. All supervisors got on the floor and worked a dispatch desk a minimum of 4 times per year. They had 6 supervisors that rotated through the bridge. He worked the dispatcher's desk 4 times this year, 5 times last year, and a minimum of 4 times a year, and that minimum was defined in the UPS manuals.

Recurrent training occurred twice a year, once in the spring and once in the fall. The training was spread out over several weeks to capture all the dispatchers, and was a one day training event that occurred in SDF. Dispatchers were not required to hold a medical certificate.

Typically on a daily basis he would oversee 15 dispatchers during the week, and maybe 5 or 6 during the weekend since most of the weekend flying was international and not domestic. UPS

had both domestic and international dispatchers. All dispatchers could work a domestic desk. The international desk required additional training. International dispatchers could sit on both the international desk and the domestic desk. The international desk paid more than the domestic desk. Dispatcher shifts were 9 hours long, and typically the domestic desk would work about 25 flights. Midnight to 6am shifts could see about 22 to 25 flights.

UPS tried to have dispatchers cover no more than 28 flights on the domestic side that would require to be planned. They did not consider the complexity of the operations for domestic. They did consider the complexity for international flights. Dispatchers would rarely work over 25 flights, and the maximum was 28 flights. If the dispatcher took over a desk from the midnight shift that had 15 flights in the air, contractual work rules would also limit the number of flights to be planned. The lead dispatcher and dispatcher supervisor would look to see if there was any task saturation for a dispatcher. It did not happen often, but it had happened before.

He knew the accident dispatcher, and he was his "supervisor of record." They divided their dispatch supervisors for administrative purposes to cover all the dispatchers. He had been the accident dispatcher's supervisor since 2012 when the accident dispatcher was first assigned to the floor after initial training.

After dispatchers got hired on at UPS, they went through initial training, which included classroom training, then training on the floor, and then an evaluation conducted by their standards department. In August of 2013, the accident dispatcher had a "desk check" where a supervisor sat with him on the floor for two hours and covered his knowledge of the flight planning system and general knowledge items. The dispatcher passed the desk check. That information went to the training department.

When asked if he knew of any performance issues with the accident dispatcher, he said "none at all," nor did the accident dispatcher have any problems communicating with crews, though he did not recall personally seeing the accident dispatcher initiate a conversation with the pilots. He had no problems in general with any of their dispatchers.

The Lido program was the primary means to dispatch aircraft at UPS. They would have a glitch every now and then with the software, but they would work with their Lido support team. He did not know the source of weather information used by the Lido system, and did not know the source of NOTAM information used by the Lido system.

The dispatcher would review the departure, enroute, and destination weather on the briefing paperwork to ensure that they had the minimums that were required for the flight.

He did not know about the METAR remarks section not being a part of the Lido flight plan.

ACARS weather was automatically sent to the pilot. He said dispatchers would see that a request had been sent, but he was not sure if the information sent to the pilots could be viewed by the dispatcher.

Dispatchers were required to ride jumpseat 5 hours per year according the CFRs, or 4 hours if they had 2 landings. Supervisors were required to as well since they were licensed dispatchers. The CFRs required a familiarization ride for a certain hours each year.

Dispatch Resource Management (DRM) training was conducted during initial training for dispatchers. It was also pushed in recurrent training and on the floor. He said "DRM is pushed, DRM is their friend."

Dispatchers were also part of the ASAP program. He was only made aware of an ASAP report "after the fact" if it occurred on his shift. He did not know if the accident dispatcher filed an ASAP for the accident flight.

If someone had a problem with one of the dispatchers, he believed they would go to their supervisor or manager. Pilots who had issues with a dispatcher could file an event report, and he had seen those before. He did not know of any event reports involving the accident dispatcher.

Supervisors rotated daily schedules that included day, evening, and midnight shifts during the week. They worked 12 hours on and 12 hours off on Fridays through Sunday. They rotated their schedules about once a month, and would also fill in when other supervisors were on vacation. He said "we hit everything quite often."

He taught recurrent training, long range navigation, ETOPs, and South American operations. He did not teach any initial meteorology or CRM training, was not currently involved in any dispatcher training. He was not involved in any dispatcher evaluations, and those were conducted by the standards department. He said they did do the annual dispatcher competency check, or "desk check," and that was done by the supervisors. He did not recall doing one on the accident dispatcher.

He did not know if the accident dispatcher was de-briefed following the accident.

He looked at the KBHM charts following the accident, and remembered it being a short runway. He did not recall if he specifically looked at the KBHM LOC18 chart, or if there were any night limitations for the approach.

He came in to work after the accident had already happened. He said something to the accident dispatcher, but did not recall what it was. He told him everything was going to be ok. He had not talked to the accident dispatcher about the accident since.

The interview concluded at 1542.