

Sept 28th 2016

FLIGHT 4919 NARRATIVES

On the night of September 24th, I was pilot in command of flight 4919 from Albany to Washington Dulles.

The flight was uneventful until the final approach phase when we were configuring for landing for runway 1 R. As pilot flying, I slowed below gear extension speed and called for "gear down". The first officer and I both realized that there was an abnormality when we heard an unusual wind like sound in the front by the nose gear. We watched for the extension sequence to complete, and while both main gears indicated as being down and locked with the green lights, the nose gear indicated an amber light (gear doors open) and a red light (gear unsafe). We opted to abort the landing and perform the alternate gear extension as per the Emergency and Abnormal Checklist. We retracted the landing gears as we began our climb to 3000 feet, and Dulles tower transferred us to departure at which time we were vectored to the south. We attempted to contact the dispatcher on the company frequency and could not reach them. We then tried relaying through other company aircraft, which failed as well. We contacted Dulles operations and they were able to speak with dispatch and open communications thru relaying messages. The first officer and I briefly assessed the situation bringing to light the fact that we had a lot of fuel, and therefore a lot of time. There was no reason to rush anything, and we could work through the problem systematically while discussing our actions. While the first officer found the proper checklist, I informed the flight attendant of our situation and told the passengers that we had a situation that required a checklist and we would have them safely on the ground as soon as possible. The flight attendant began to brief the passengers. We performed the manual gear extension, which required us to pull cable that releases the nose gear, and it still failed to extend. It was suggested to us that we do a low pass so that ground personnel could see how the gears were configured. We were vectored to runway 1C where we flew the low approach, and when the flaps were set to 15* the gear warning horn and EGPWS sounded which further indicated the abnormality. It was confirmed by the ground personnel that the two main gears were down, and the nose gear was in up with the doors open as the gear lights indicated in the cockpit. We climbed back to 3000 feet without retracting the gear and were again vectored to the south. An emergency was declared and fire trucks were requested. Dulles operations designated the frequency for us and gave all other aircraft an alternate frequency. The flight attendant called me at this point to tell me that the passengers were becoming anxious about the situation, which I thought may have been from then hearing the gear horn on the approach. This was of concern to me since I knew that we would evacuate and I didn't want them to be in a panicked state for the evacuation. I attempted to calm them with another announcement stressing that they would be making a safe landing. I checked back with the flight attendant several minutes later and he advised me that they had calmed down. Operations began to relay ideas from the company for troubleshooting. They told us to check to see that all of the circuit breakers were in, confirm that the main gear was pumped

fully down and to try pulling the release cable for the nose gear, yaw the aircraft while pulling the cable, and recycle the landing gear. After recycling the gear we performed the emergency extension checklist again. The final suggestion was to touch down hard on the main gears and go around in an attempt to jar the gear loose. We decided against this since we didn't feel that was a safe maneuver. The passengers were calmed back down, and the FMS indicated that we would only have 500 lbs of fuel once we reached the field. We weren't comfortable doing it with the remaining fuel. We made sure that there were no more suggestions from the company and decided to land with the gears in the abnormal configuration. The company agreed that we should go ahead, and directed us to move passengers to the back of the airplane for a rearward center of gravity. They also directed us to use a flaps 35* configuration, hold the nose off of the runway for as long as possible and offset the landing from the centerline to reduce damage from the centerline lighting. I instructed the flight attendant to move passengers from section A to section D, and advise me when this was accomplished. I also told him to prepare for a brace and that I would further advise him when to begin bracing. He prepared the cabin and informed me that he was ready. Approach vectored us for runway 1R and we began to discuss any final preparation concerns. The first officer brought to my attention that the main cabin door would not fully open. This was likely to create a dangerous situation with the stairs not being at an angle that would allow for a safe egress. I relayed this to the flight attendant and instructed him to only use the emergency exits. I told the first officer that I would not use ground beta until the nose touched down. This would allow me to fly the nose down in a more controlled manner since ground beta rapidly slows the airplane and creates a very noticeable amount of yaw from the drastic change in torque. We intercepted the approach and configured the airplane for a flaps 35* landing. As we came over the threshold, the ground personnel once again observed the gear in the retracted position and advised us. The landing went as planned as I was able to control the nose all the way to the ground. As it touched down, a harsh smelling smoke began to fill the cockpit, which burned my eyes and nose. I slowly retarded the power levers through flight idle and the airplane came to a stop. I shut down the engines and performed the memory action items, which included calling for an evacuation while the fire trucks sprayed the runway with foam. The first officer completed his memory action items as well and exited the aircraft to help the passengers off. When I left the flight deck, the only other two remaining souls on board were the flight attendant and a young girl. He handed her to her grandfather and exited the plane. I checked quickly for any remaining passengers and exited the airplane as well. Ambulances were standing by to evaluate passengers who were now on the west edge of the runway, and I brought woman with a wrist injury to a medic. Several minutes later, the mobile lounge arrived and brought the crew and passengers to the D gates. We were escorted to the United Club Lounge where we were separated from the passengers and brought to an operations office.

There are a few suggestions that I have that could have facilitated things and for things unforeseen. I think that the first officer made a very intelligent point when he asked about the main cabin door. The stairs would have been unsafe since

the door could not fully open as it would make contact with the ground. I believe that injuries were prevented from his idea. An unforeseen and surprising amount of smoke entered the cockpit when the nose touched down. Perhaps donning the O2 mask would have been helpful. Keeping the power levers in flight idle allowed me to lower the nose in a controlled manner and eliminated the yaw and rapid deceleration caused my putting them in ground beta as we do in normal operations. We also assessed the runway length and realized that we had adequate runway. Direct communications with the company would have facilitated the process. This would have taken some of the workload from operations and eliminated the possibility of miscommunication by the relaying of messages. The suggestions from the company were also very valuable. I believe that all of these things could be very useful additions to the E&A checklist.

If there are any questions related to this narrative or I can be of any assistance, please feel free to contact me.

Danos Ettrick

