## Attachment 2

To Operations Group Factual Report

# DCA13FA094

**Crew Statements** 

Mr. John Lovell National Transportation Safety Board Washington, D.C.

RE: Flight #4560 May 17, 2013

Dear Sir:

I served as Pilot in Command of Flight #4560, PHL-EWR on May 17, 2013. To the best of my recollection, I have prepared this statement regarding the relevant facts of this flight. I was assisted by First Officer Chad Rabinowitz and Flight Attendant Susan Lamar. This flight was our 6<sup>th</sup> leg on day three of a four day trip. The previous legs had been routine, although this aircraft, ship #934 HA, had an inoperative APU which had been deferred for maintenance when we reported for duty on the first leg on May 17th.

Flight #4560 blocked out on schedule at 22:54 that evening. We had 31 passengers on this Dash 8-100 aircraft, which has a capacity of 37. The weather was clear, VFR. The air temperature at departure from PHL was approximately 65 degrees. First Officer Rabionwitz served at the flying pilot on this leg; I was handling the communications.

We made a normal departure from runway 27 L. The flight was routine until we ran the normal descent checklist and the approach sequence. When the First Officer called for deployment of the gear we received a red light indicating that the left main gear was not locked in position for landing. I requested that the tower inspect the gear, so we performed a fly by. The tower confirmed that the left gear was partially extended. They then gave vectors to us so that we could troubleshoot the problem while staying in their airspace. At their request, we ascended to 3,000 feet to deal with the issue.

In conformity with procedures, the relevant checklists were followed. We executed the alternate landing gear extension procedures. When that was unsuccessful we contacted the company through our satellite telephone. We were patched in with the Piedmont Maintenance Department. They recommended that we manually pump the gear down. That procedure was tried unsuccessfully a number of times. Further, they told us to cycle the gear up and start the entire process again. The same result was observed. We also tried a positive G maneuver, but again the gear did not fall into place. (I went back into the cabin to observe the gear. I saw that the gear doors were open but the left gear was not in place.)

We then discussed our landing options. After consideration of the alternatives we concluded that our safest option was to land with the gears up. I verified this decision with company management. The cabin was prepared for an emergency landing. I instructed that the passengers be moved out of rows one and two if possible in case the propellers separated from the aircraft. I informed the passengers to stay seated with their seatbelts fastened until the crew gave them the all clear.

I had assumed the role of the flying pilot. An ILS to a visual approach to runway 4 L was performed. I made a normal approach considering the limitations of the aircraft. I attempted to keep the aircraft level on touchdown. Touchdown was made at approximately Vref. Once we were on the runway I cut the power to stop the propellers. We came to a stop and an evacuation was performed out the main cabin door. The First Officer positioned himself outside to assist the passengers as they left the airplane. I was in the proceeded to the area where the flight attendant had taken the passengers and asked if anyone was injured. All passengers stated that they were okay. The passengers were then bussed to the terminal, and we proceeded to a medical facility at the airport to take our drug/alcohol tests.

Should any additional information be needed, please feel free to contact me at your convenience.

Sincerely,

Captain Edward Powers

Mr. John Lovell National Transportation Safety Board Washington, D.C.

#### RE: Flight #4560 May 17, 2013

Dear Sir:

I served as Second in Command of Flight #4560, PHL-EWR on May 17, 2013. This statement has been prepared regarding the flight as I remember the details. I was serving under the command of Captain Edward Powers. Susan Lamar served as the Flight Attendant in the cabin. This flight was our 6<sup>th</sup> leg on day three of a four day trip. The previous legs had been routine, although this aircraft, ship #934 HA, had an inoperative APU which had been deferred for maintenance when we reported for duty on the first leg on May 17th.

Flight #4560 blocked out on schedule at 22:54 that evening. We had 31 passengers on this Dash 8-100 aircraft, which has a capacity of 37. The weather was clear, VFR. The air temperature at departure from PHL was approximately 65 degrees. I was serving as the flying pilot on this leg; Captain Powers was handling the communications.

We made a normal departure from runway 27 L. The flight was routine until I called for the normal descent checklist and the approach sequence. When I called for deployment of the gear we received a red light indicating that the left main gear was not locked in position for landing. The Captain requested that the tower inspect the gear, so we performed a fly by. The tower confirmed that the left gear was partially extended. They then gave vectors to us so that we could troubleshoot the problem while staying in their airspace. At their request, we ascended to 3,000 feet to deal with the issue.

In conformity with procedures, the relevant checklists were followed. We executed the alternate landing gear extension procedures. When that was unsuccessful we contacted the company through our satellite telephone. We were patched in with the Piedmont Maintenance Department. They recommended that we manually pump the gear down. That procedure was tried unsuccessfully a number of times. Further, they told us to cycle the gear up and start the entire process again. The same result was observed. We also tried a positive G maneuver, but again the gear did not fall into place. The Captain went back into the cabin to observe the gear. He reported that the gear doors were open but the left gear was not in place.

We then discussed our landing options. After consideration of the alternatives we concluded that our safest option was to land with the gears up. Captain Powers verified this decision with company management. The cabin was prepared for an emergency landing. The Captain instructed that the passengers be moved out of rows one and two if possible in case the propellers separated from the aircraft. Further, he informed the passengers to stay seated with their seatbelts fastened until the crew gave them the all clear.

Captain Powers had assumed the role of the flying pilot. An ILS to a visual approach to runway 4 L was performed. He made a normal approach considering the limitations of the aircraft. Captain Powers attempted to keep the aircraft level on touchdown. Touchdown was made at approximately Vref. Once we were on the runway he cut the power to stop the propellers. We came to a stop and an evacuation was performed out the main cabin door. While Captain Powers shut down the aircraft I positioned myself outside by the main cabin stairs to assist the passengers as they left the airplane. The flight attendant led the passengers off the runway. I followed and asked if anyone was hurt. All passengers stated that they were all right. The passengers were then bussed to the terminal, and we proceeded to a medical facility at the airport to take our drug/alcohol tests.

I hope that this letter contains all information that is necessary. If further information is required please contact me at the above address.

Sincerely,

First Officer Chad Rabinowitz

**Overview:** 

**Event ID: Title:** Emergency Landing **Employee: User Name:** Salutation: Ms. First Name: SUSAN Last Name: LA MAR **Employee Number:** Job Title: Flight Attendant **Employee Base: MDT** FAA Certificate or Qualification Type: Flight Attendant Address City: State: Zip Code: **Country:** United States **Email Address: Home Phone Number:** Work Phone Number: Mobile Number: **Other Employees: Employee Duty:** Pilot **Employee Number:** First Name: EDWARD Last Name: POWERS **Other Employees: Employee Duty:** Pilot **Employee Number:** First Name: CHAD Last Name: RABINOWITZ **Processing:** Status: Open ID: Date/Time When Event Occurred: Fri, 03 May 2013 22:54 EDT Viewer Accessible: Yes Initial Notification Date/Time: Tue, 21 May 2013 20:02 EDT Submission Date/Time: Tue, 21 May 2013 20:03 EDT

Source: Web Submission

Is this a safety improvement report?: Yes

Event: 1

Risk Assessment

Likelihood:

Severity:

**Risk Factor:** 

Description

Aircraft Configuration:

Nickname:

Tail Number: N934HA

Aircraft Type: DHC-8-102

Aircraft System/Equipment Malfunction:

Landing Gear/Tires/Brakes: Malfunction

**Cabin Employee Information:** 

Primary Duties During Time of Event: Flight Attendant

Flight Information:

**Departure Airport, Runway and Gate:** PHL/KPHL

Flight Number: 4560

Scheduled Arrival Airport, Runway and Gate: EWR/KEWR

Landing Airport, Runway and Gate: EWR/KEWR

Narrative:

May 17, 2013 Flight 4560 PHL-EWR

-Normal flight

-crew gave 3 bells for landing

-shortly after, we didn't land and went around

-about 10 mins later the CA called to say the left main landing gear did not come down, they were working on it and there wasn't anything to tell the pax yet

-15 to 20 mins later the CA called and told me to look out the window to see if the gear was down, I didn't see anything

-about 10 mins later the CA came into the cabin with a flashlight to look out the window himself

-not long after, pax started asking questions about what was going on and why we hadn't landed yet. I didn't have much information to give them and didn't want to alarm anyone and just said there was a mechanical issue that the pilots were busy trying to correct

-the CA called on the interphone to say they were still discussing how the landing was going to go but to prepare the cabin for an emergency landing. I performed T.E.S.T., got the emergency procedures card and continued with the rest of the 9 steps.

- When I asked the pax sitting at the emergency exit at row 1 if they were still willing and able to assist if needed, they said they were not and needed to be relocated

-When securing the cabin, many pax were mostly concerned with knowing how to properly brace

-When I went to remove the curtain it was more difficult than I imagined it would be and took me a few pulls to get it completely off the track and into the closet

-The cabin and galley were secure but pax seemed nervous. I told them "This is what's going to happen: when we're about 200 feet off the ground the CA will make an announcement saying "brace, brace, brace" that's when you need to get into the brace position and I will start yelling brace commands. I will be yelling "heads down, stay down, brace now" and keep yelling them until we stop. Remain seated until you hear evacuation commands." Even though most of that information is on the emergency procedures briefing card they seemed to "get it." I thought it would help if I just talked to them rather than reading off a card.

-After I had called the flight deck to tell them the cabin was ready they asked me to move as many pax as I could out of row 1 and 2. I was able to clear row 1 and 2AC.

-The FO made the brace announcement. I began shouting brace commands until the aircraft completely stopped

-When the aircraft came to a stop the flight deck made an announcement to remain seated until further notice. As they were saying that I noticed smoke filling the cabin. I stood up, turned on the EMER lights and was starting to open the air stair door when the FO was coming out of the flight deck and he began the evacuation. I started yelling evacuation commands.

-Pax were staying close together. About the last 8 people were coughing and when there was only one pax left I asked him if he was the last person, he said yes and I followed behind him. The firemen outside the aircraft asked if anyone else was left, I said only the CA and ran to where the police were gathering the passengers

Phase of Flight: Flight Phase at Start of Event: Approach

### Cause

Aircraft System/Equipment Malfunction: Landing Gear/Tires/Brakes: Malfunction Narrative: Left main landing gear didn't extend.

### Detection

How Event Detected: Flight Crew: Yes When Event Detected: In-Flight: Yes